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SERIES Q: SWITCHING AND SIGNALLING

Broadband ISDN – B-ISDN application protocols for the
network signalling

**Signalling System No. 7 B-ISDN User Part
(B-ISUP) – Formats and codes**

ITU-T Recommendation Q.2763

(Formerly CCITT Recommendation)

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ITU-T Recommendation Q.2763

Signalling System No. 7 B-ISDN User Part (B-ISUP) – Formats and codes

Summary

This ITU-T Recommendation is one of a set of ITU-T Recommendations that describe the Broadband ISDN User Part. It specifies the formats and codes of the B-ISDN User Part messages and parameters required to support basic bearer services and supplementary services.

The scope of the B-ISDN User Part covers international B-ISDN networks. However, the B-ISDN User Part is suitable for national applications. Most messages and parameters specified for international use are also required in typical national applications.

Source

ITU-T Recommendation Q.2763 was revised by ITU-T Study Group 11 (1997-2000) and approved under the WTSC Resolution 1 procedure on 3 December 1999.

FOREWORD

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The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSC Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

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ITU-T Recommendation Q.2763

Signalling System No. 7 B-ISDN User Part (B-ISUP) – Formats and codes

1 Scope

This ITU-T Recommendation specifies the formats and codes of the B-ISDN User Part messages and parameters required to support basic bearer services and supplementary services for B-ISDN applications.

The B-ISDN User Part is applicable to international B-ISDN networks. Furthermore, the B-ISDN User Part is suitable for national applications. Most messages and parameters specified for international use are also required in typical national applications. Moreover, coding space has been reserved in order to allow national Administrations and recognized operating agencies to introduce network specific signalling messages and parameters within the internationally standardized protocol structure.

2 References

See ITU-T Recommendation Q.2761.

3 Terms and definitions

See ITU-T Recommendation Q.2761.

4 Abbreviations

This ITU-T Recommendation uses the following abbreviations:

ABR	Available Bit Rate
ABT-DT	ATM Block Transfer with Delayed Transmission
ABT-IT	ATM Block Transfer with Immediate Transmission
AESA	ATM End System Address
ANM	Answer Message
ASE	Application Service Element
ATC	ATM Transfer Capability
ATM	Asynchronous Transfer Mode
B-ISDN	Broadband Integrated Services Digital Network
CLP	Cell Loss Priority
DBR	Deterministic Bit Rate
DPC	Destination Point Code
ECT	Explicit Call Transfer (supplementary service)
FPH	Freephone (supplementary service)
GVNS	Global Virtual Network Service
IAM	Initial Address Message

ICR	Initial Cell Rate
MBS	Maximum Burst Size
MCID	Malicious Call Identification
NI	Network Identity
OPC	Origination Point Code
PCR	Peak Cell Rate
QoS	Quality of Service
RM	Resource Management
SAAL	Signalling ATM Adaptation Layer
SCR	Sustainable Cell Rate
SLS	Signalling Link Selection
STM	Synchronous Transfer Mode

For further abbreviations, see ITU-T Recommendation Q.2761.

5 General encoding principles

B-ISDN User Part messages are carried on the ATM signalling link by means of SAAL service data units, the format of which is described in 6.2/Q.2110.

As a national option, B-ISDN User Part messages can be carried on the STM signalling link by means of signal units, the format of which is described in 2.2/Q.703.

The format of and the codes used in the service information octet are described in 14.2/Q.704 and 9.5/Q.2210. The service indicator for the B-ISDN User Part is coded 1001.

The signalling information field of each message signal unit containing an B-ISDN User Part message consists of an integral number of octets and encompasses the following parts (see Figure 1):

- a) routing label;
- b) message type code;
- c) message length;
- d) message compatibility information;
- e) message content.

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

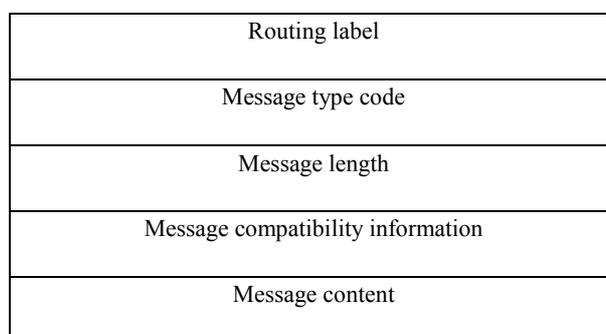


Figure 1/Q.2763 – B-ISDN User Part message format

5.1 Routing label

The format and codes used for the routing label are described in 2.2/Q.704. For each ATM virtual connection the same routing label must be used for each message that is transmitted for that connection.

The SLS value is allocated on a cyclic basis per signalling association, e.g. values of a cyclic 4-bit counter incremented for each new signalling association. A counter is required for each allocated OPC/DPC/NI combination.

5.2 Message compatibility information

The message compatibility information consists of a one-octet field and is mandatory for all messages. The message compatibility information defines the behaviour of a switch if the message is not understood.

5.3 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 B-ISDN User Part message. The allocation with reference to the appropriate descriptive clause of this Recommendation is summarized in Table 1.

Table 1/Q.2763 – Message type codes

Message type	Reference (Table)	Code
Address complete	3	0000 0110
Answer	4	0000 1001
Application transport	5	0100 0001
Blocking	6	0001 0011
Blocking acknowledgement	7	0001 0101
Call progress	8	0010 1100
Call transfer	9	0011 1001
Connection available (Note)	10	0011 1101
Confusion	11	0010 1111
Consistency check request	12	0000 0101
Consistency check request acknowledgement	13	0001 0001
Consistency check end	14	0001 0111
Consistency check end acknowledgement	15	0001 1000
Facility	16	00110011
Forward transfer	17	0000 1000
Identification request	18	0011 0110
Identification response	19	0011 0111
Initial address	20	0000 0001
IAM acknowledgement	21	0000 1010
IAM reject	22	0000 1011
Loop prevention	23	0100 0000
Modify acknowledgement	24	0011 1010

Table 1/Q.2763 – Message type codes (concluded)

Message type	Reference (Table)	Code
Modify reject	25	0011 1011
Modify request	26	0011 1100
Network resource management	27	0011 0010
Pre-release information	36	0100 0010
Release	28	0000 1100
Release complete	29	0001 0000
Reset	6	0001 0010
Reset acknowledgement	7	0000 1111
Resume	32	0000 1110
Segmentation (national use)	30	0011 1000
Subsequent address	31	0000 0010
Suspend	32	0000 1101
Unblocking	6	0001 0100
Unblocking acknowledgement	7	0001 0110
User Part available	33	0011 0101
User Part test	34	0011 0100
User-to-user information	35	0010 1101
Reserved, used in N-ISUP		0000 0011
Reserved, used in N-ISUP		0000 0100
Reserved, used in N-ISUP		0000 0111
Reserved, used in N-ISUP		0001 1001
		to
		0010 1011
Reserved, used in N-ISUP		0010 1110
Reserved, used in N-ISUP		0011 0000
Reserved, used in N-ISUP		0011 0001
" " " "		0100 0011
Reserved, used in N-ISUP for future extensions		1000 0000
Reserved for extension of name code		1111 1111
NOTE – The former name of the message was Modify Confirm. Existing procedures are not influenced by this editorial change. However, this message may be used in additional procedure(s).		

5.4 Message length

The message length consists of a fixed length field and is mandatory for all messages. The message length uniquely indicates the number of octets included in the B-ISDN User Part message content and the message compatibility information fields (see Figure 1).

5.5 Formatting principles

The message content of each message contains a number of parameter listed and described in clause 6. Each parameter has a NAME which is coded as a single octet (see Table 2). The length of a parameter may be fixed or variable, and a length indicator of fixed length for each parameter is included. Every parameter contains parameter compatibility information (see Figure 2).

Table 2/Q.2763 – Parameter name codes

Parameter name	Reference (subclause)	Code
AAL parameters	7.2	0100 0111
AAL prime parameters	7.3	1001 0001
Access delivery information	7.4	0010 1110
Additional ATM cell rate	7.5	0101 1010
Additional calling party number	7.6	0001 0000
Additional connected number	7.7	0001 0001
AESA for additional calling party	7.8	1001 0010
AESA for additional connected party	7.9	1001 0011
AESA for called party	7.10	0101 1000
AESA for calling party	7.11	0101 1001
AESA for connected party	7.12	0110 1101
Alternative ATM cell rate	7.13	0101 0111
Application generated identifier	7.14	0110 1010
Application transport	7.15	0111 1000
ATC setup parameters	7.16	1001 0111
ATM cell rate	7.17	0000 1000
Automatic congestion level	7.18	0010 0111
Automatic re-routing (crankback)	7.19	1001 0110
Backward GVNS	7.20	0100 1101
Backward narrow-band interworking indicator	7.21	0001 0100
Broadband bearer capability	7.22	0101 0000
Broadband high layer information	7.23	0100 0110
Broadband low layer information	7.24	0100 1111
Call diversion information	7.25	0011 0110
Call diversion may occur	7.26	0010 0110
Call diversion treatment indicators	7.27	0110 1110
Call history information	7.28	0010 1101
Call offering treatment indicators	7.29	0111 0000
Call transfer number	7.30	0100 0101
Call transfer reference	7.31	0100 0011
Called IN number	7.32	0110 1111
Called party number	7.33	0000 0100
Called party sub-address	7.34	0001 0101
Called party's indicators	7.35	0001 0111
Calling party number	7.36	0000 1010
Calling party sub-address	7.37	0001 0110

Table 2/Q.2763 – Parameter name codes (continued)

Parameter name	Reference (subclause)	Code
Calling party's category	7.38	0000 1001
Cause indicators	7.39	0001 0010
CCSS	7.40	0100 1011
CDVT	7.41	0111 1110
Charge indicator	7.42	0001 1001
Charged party identification (national use)	7.43	0111 0001
Closed User Group information	7.44	0001 1010
Collect call request	7.45	0111 1001
Conference treatment indicators	7.46	0111 0010
Connected line identity request	7.47	0001 1011
Connected number	7.48	0010 0001
Connected sub-address	7.49	0010 0100
Connection element identifier	7.50	0000 0110
Connection identifier	7.51	0110 1001
Consistency check result information	7.52	0100 1010
Correlation ID	7.53	0110 0101
Destination connection link identifier	7.54	0101 0100
Destination signalling identifier	7.55	0000 0011
Display information	7.56	0111 0011
Echo control information	7.57	0011 0111
End-to-end transit delay network generated indicator	7.58	1001 1001
Exclusive connection element identifier	7.59	1001 0101
Extended quality of service	7.60	1001 0000
Forward GVNS	7.61	0100 1100
Forward narrow-band interworking indicator	7.62	0001 1100
Hop counter	7.63	0011 1101
In-band information indicator	7.64	0001 1111
Leaf party type	7.65	0101 0110
Link layer core parameters	7.66	0110 1011
Link layer protocol parameters	7.67	0110 1100
Location number	7.68	0011 1111
Loop prevention indicators	7.69	0100 0100
Maximum end-to-end transit delay	7.70	0000 0111
MCID response indicators	7.71	0011 1100
MCID request indicators	7.72	0011 1011
Minimum ATM cell rate	7.73	0101 0010
MLPP precedence	7.74	0011 1010
MLPP user information	7.75	0100 1001
Narrow-band bearer capability	7.76	0001 1101
Narrow-band high layer compatibility	7.77	0011 0100
Narrow-band low layer compatibility	7.78	0010 0101
National/international call indicator	7.79	0010 1001
Network call correlation identifier	7.80	0110 1000

Table 2/Q.2763 – Parameter name codes (continued)

Parameter name	Reference (subclause)	Code
Network look ahead indicator	7.81	0101 1111
Network management controls	7.82	0101 1011
Notification	7.83	0010 1100
OAM traffic descriptor	7.84	0100 1000
Original called number	7.85	0010 1000
Origination connection link identifier	7.86	0101 0101
Origination ISC point code	7.87	0010 1011
Origination signalling identifier	7.88	0000 0010
Priority	7.89	0110 0111
Progress indicator	7.90	0011 0101
Propagation delay counter	7.91	0011 0001
Quality of Service	7.92	0101 0011
Redirecting number	7.93	0000 1011
Redirection information	7.94	0001 0011
Redirection number	7.95	0000 1100
Redirection number restriction	7.96	0100 0000
Remote operations (national use)	7.97	0011 0010
Report type	7.98	0110 0100
Report type prime	7.99	1001 0100
Resource identifier	7.100	0011 1001
SCF ID	7.101	0110 0110
Segmentation indicator (national use)	7.102	0011 1110
Service activation	7.103	0011 0011
Soft PVC called endpoint	7.104	0111 0110
Soft PVC calling endpoint	7.105	1001 1000
Subsequent number	7.106	0000 0101
Suspend/resume indicators	7.107	0010 0010
Transit network selection (national use)	7.108	0010 0011
UID action indicators	7.109	0111 0100
UID capability indicators	7.110	0111 0101
User-to-user indicators	7.111	0010 1010
User-to-user information	7.112	0010 0000
Reserved for FPH		0101 0001
Reserved for look result		0101 1110
Reserved, used in N-ISUP		0000 0000
Reserved, used in N-ISUP		0000 0001
Reserved, used in N-ISUP		0000 1101
		to
		0000 1111
Reserved, used in N-ISUP		0001 1000
Reserved, used in N-ISUP		0001 1110
Reserved, used in N-ISUP		0010 1111
Reserved, used in N-ISUP		0011 0000

Table 2/Q.2763 – Parameter name codes (concluded)

Parameter name	Reference (subclause)	Code
Reserved, used in N-ISUP		0011 1000
Reserved, used in N-ISUP		0100 0001
Reserved, used in N-ISUP		0100 0010
Reserved, used in N-ISUP		0100 1110
Reserved used in N-ISUP		0111 0111
Reserved used in N-ISUP		0111 1010
		to
		0111 1101
Reserved used in N-ISUP		0111 1111
		to
		1000 1110
Reserved used in N-ISUP		1010 0000
		to
		1010 1111
Reserved, used in N-ISUP		1100 0000
Reserved, used in N-ISUP		1100 0001
Reserved for extension of name code		1111 1111

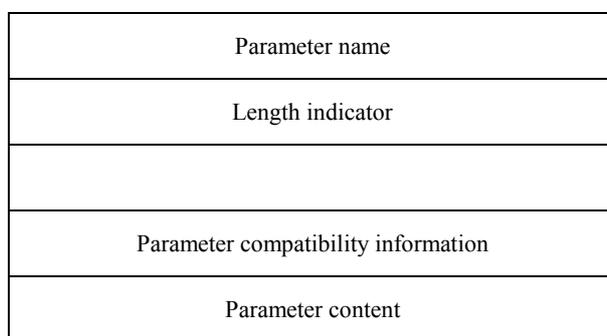


Figure 2/Q.2763 – B-ISDN User Part parameter format

The detailed format of the length indicator and the parameter compatibility information is described in clause 6.

The detailed format of the parameter content is uniquely defined for each parameter as described in clause 7.

Between parameters there should be no unused (i.e. dummy) octets.

5.6 Encoding principles for subfields

The content of each parameter contains a number of subfields. Within each subfield, the least significant bit of the field is represented by the lowest-numbered bit and the most significant bit is represented by the highest-numbered bit. In case a subfield exceeds one octet, the significance of the bits, if applicable, is indicated in clause 7.

5.7 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 to the underlying layer/level is the one shown at the top of the stack and the last is the one at the bottom.

Unless otherwise indicated, within each octet and subfield the bits are transmitted to the underlying layer/level with the least significant bit first.

5.8 Coding of spare bits

Spare bits are coded "0" unless indicated otherwise.

Any parameter values marked as "spare", "reserved", or "national use" may be regarded as unrecognized.

5.9 National message types and parameters

If messages type codes and parameters are required for national uses not included in this Recommendation, the codes chosen should be from the highest code downwards, that is, starting at code 11111110. Message type codes in the range 11111110 to 11100000 and parameter name codes in the range 11111110 to 11000001 are reserved exclusively for this purpose.

5.10 Rules for the allocation of message, parameter name, and parameter subfield codes

- a) Existing N-ISUP message and parameter name codes used in B-ISUP should have the same name codes in B-ISUP.
- b) Existing N-ISUP message and parameter name codes not used in B-ISUP should be marked reserved in B-ISUP.
- c) B-ISUP message and parameter name codes not used in N-ISUP should be marked reserved in N-ISUP.
- d) The code point 11111111 for both message and parameter name codes is reserved in B-ISUP to indicate extension of the name code:
 - a second parameter name octet shall appear as the first octet in the parameter content (see Figure 2);
 - a second message name octet shall be encoded in a new parameter.
- e) Allocation of codes for subfields of parameters used in both B-ISUP and N-ISUP must avoid overlapping and be coordinated.

5.11 Formats and codes of parameters originated from the access protocol

The formats and codes of the parameters which are originated from the access protocol are the same as specified in Recommendation ITU-T Q.2931. The coding standard subfield for such parameters shall be coded as specified in Recommendation ITU-T Q.2931.

6 Parameter formats and codes

6.1 Message type codes

The encoding of the message type is shown in Table 1.

6.2 Coding of the message length indicator

The format of the message length indicator field is shown in Figure 3.

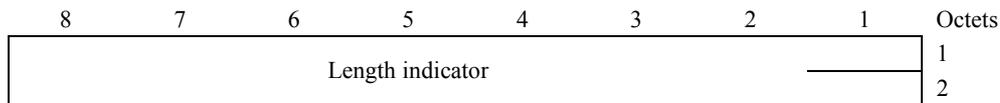


Figure 3/Q.2763 – Message length indicator field

The message length indicator field is binary coded to indicate the number of octets in the message content field and the message compatibility information field (see Figure 1). The length indicated does not include the routing label octets, the message type code octets or the message length indicator octets.

The following codes are used in the message length indicator subfield:

a) *Length indicator*

A code expressing in pure binary representation the number of octets (see Note). Bit 8 of octet 1 is the most significant and bit 1 of octet 2 is the least significant respectively.

NOTE – The actual maximum message length is given by the lower levels.

6.3 Coding of the parameter length indicator

The format of the parameter length indicator subfield corresponds to the format shown in Figure 3.

The parameter length indicator subfield is binary coded to indicate the number of octets in the parameter content and parameter compatibility information fields (see Figure 2). The length indicated does not include the parameter name octet or the parameter length indicator octets.

6.4 Coding of the message compatibility information

The format of the message compatibility information is shown in Figure 4.

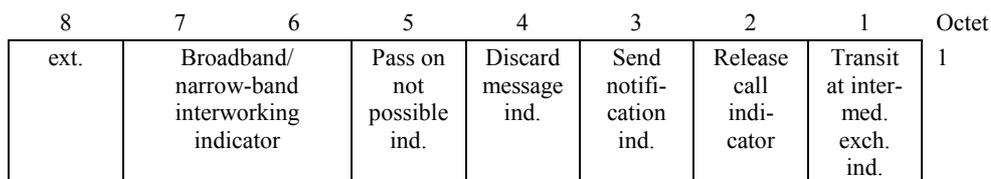


Figure 4/Q.2763 – Message compatibility information field

The following codes are used in the subfields of the message compatibility information field:

a) *Extension indicator (ext.)*

0 Octet continues through the next octet (e.g. octet 1 to 1a).

1 Last octet.

b) *Broadband/narrow-band interworking indicator (octet 1)*

00 Pass on.

01 Discard message.

10 Release call.

11 Reserved, assume "00".

- c) *Pass on not possible indicator (octet 1)*
 0 Release call.
 1 Discard information.
 - d) *Discard message indicator (octet 1)*
 0 Do not discard message (pass on) (see Note 1).
 1 Discard message.
- NOTE 1 – If "pass on" is set (discard message indicator = 0) but not possible, then the send notification indicator and the pass on not possible indicator are checked.
- e) *Send notification indicator (octet 1) (see Note 2)*
 0 Do not send notification.
 1 Send notification.
- NOTE 2 – Notification by Confusion message.
- f) *Release call indicator (octet 1)*
 0 Do not release call.
 1 Release call.
 - g) *Transit at intermediate exchange indicator (octet 1)*
 0 Transit interpretation.
 1 End node interpretation.

6.5 Coding of the parameter compatibility information

The format of the parameter compatibility information subfield is shown in Figure 5.

8	7	6	5	4	3	2	1	Octets
ext. 0	Pass on not possible indicator		Discard parameter ind.	Discard message ind.	Send notification ind.	Release call ind.	Transit at inter-med exch. ind.	1
ext. 1	Spare					Broadband/narrow-band interworking indicator		1a

Figure 5/Q.2763 – Parameter compatibility information subfield

The following codes are used in the parameter compatibility information subfield:

- a) *Extension indicator (ext.)*
 0 Octet continues through the next octet (e.g. octet 1 to 1a).
 1 Last octet.
- b) *Pass on not possible indicator (octet 1)*
 00 Release call.
 01 Discard message.
 10 Discard parameter.
 11 Reserved, assume "00".

c) *Discard parameter indicator (octet 1)*

0 Do not discard parameter (pass on) (see Note 1).

1 Discard parameter.

NOTE 1 – If "pass on" is set (discard parameter indicator = 0) but not possible, then the send notification indicator and the pass on not possible indicator are checked.

d) *Discard message indicator (octet 1)*

0 Do not discard message (pass on) (see Note 2).

1 Discard message.

NOTE 2 – If "pass on" is set (discard message indicator = 0) but not possible, then the send notification indicator and the pass on not possible indicator are checked.

e) *Send notification indicator (octet 1) (see Note 3)*

0 Do not send notification.

1 Send notification.

NOTE 3 – Notification by Confusion or Release Complete message.

f) *Release call indicator (octet 1)*

0 Do not release call.

1 Release call.

g) *Transit at intermediate exchange indicator (octet 1)*

0 Transit interpretation.

1 End node interpretation.

h) *Broadband/narrow-band interworking indicator (octet 1a)*

00 Pass on.

01 Discard message.

10 Release call.

11 Discard parameter.

7 B-ISDN User Part parameters

7.1 Parameter names

The parameter name codes are given in Table 2 together with references to the subclauses in which they are described.

Parameter descriptions

7.2 AAL parameters

The format of the AAL parameters parameter field is shown in Figure 6.

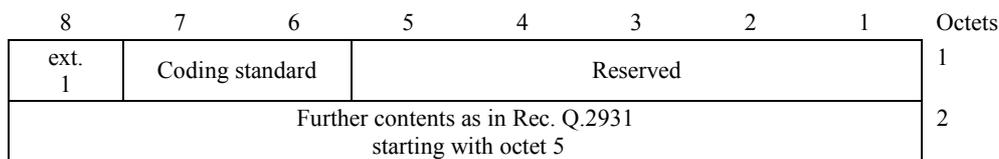


Figure 6/Q.2763 – AAL parameters parameter field

The codes to be used in the subfields of the AAL parameters parameter field are defined in the AAL parameters information element in Recommendation ITU-T Q.2931 and in Amendment 2 to Q.2931.

Coding of the AAL parameters parameter field for Frame Relay is as defined in ITU-T Recommendation Q.2933 with an additional octet and will include selection of AAL Type 5, indication of Forward and Backward Maximum CPCS-SDU size, and selection of Frame Relay SSCS.

7.3 AAL prime parameters

The format of the AAL prime parameters parameter field is shown in Figure 7.

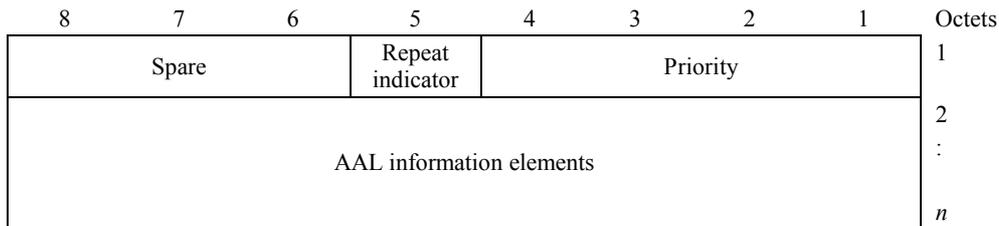


Figure 7/Q.2763 – AAL prime parameters field

The following codes are used in the subfields of the AAL prime parameter field:

a) *Repeat indicator (octet 1)*

- 0 Information element not repeated.
- 1 Information element repeated.

b) *Priority (octet 1)*

- 0000 No prioritized order.
- 0001 Prioritized list for selecting one possibility: ascending order.
- 0010 Prioritized list for selecting one possibility: descending order.
- 0011 } Reserved.
- to }
- 1111 }

c) *AAL information element (octets 2 to n)*

This field contains the AAL information element received from DSS2, which is assigned with the lowest order of priority. The format of the AAL information elements is the same as specified in ITU-T Recommendation Q.2931 and in Amendment 2 of Q.2931.

7.4 Access delivery information

The format of the access delivery information parameter field is shown in Figure 8.

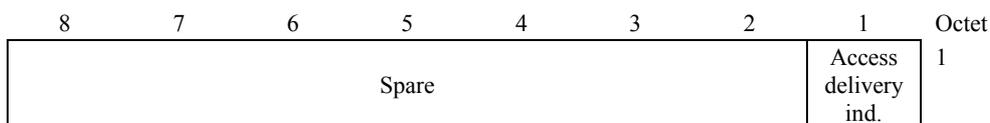


Figure 8/Q.2763 – Access delivery information parameter field

The following codes are used in the subfields of the access delivery information parameter field:

- a) *Access delivery indicator*
 0 Setup message generated.
 1 No setup message generated.

7.5 Additional ATM cell rate

The format of the additional ATM cell rate parameter field is shown in Figure 9.

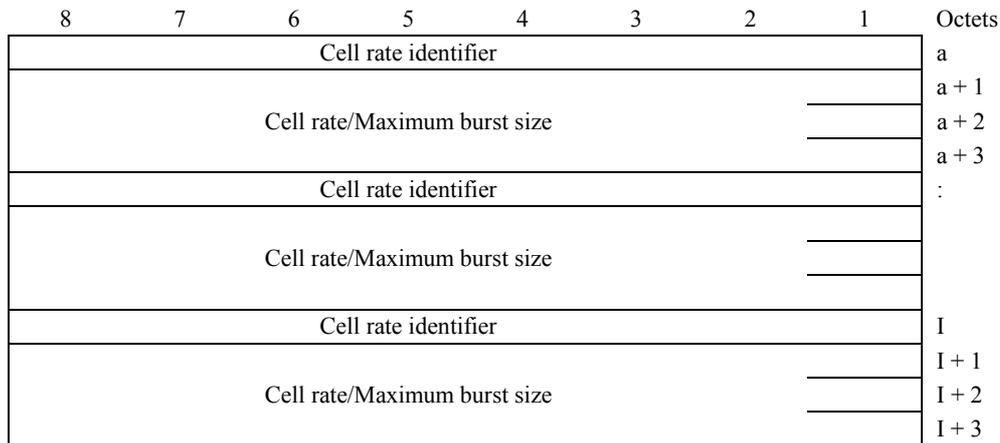


Figure 9/Q.2763 – Additional ATM cell rate parameter field

NOTE 1 – Octet groups (or subfields) may be included in any order within the parameter. This general encoding rule applies to all B-ISUP Recommendations whenever octet groups (or subfields) are identified or tagged by a one octet identifier within a parameter.

NOTE 2 – Octet groups (or subfields) tagged by a one octet identifier are not extensible. Although some older B-ISUP Recommendations may include octet groups (or subfields) tagged by a one octet field with bit 8 shown as an extension bit, no requirements for their future extension is foreseen. Implementations may therefore safely handle such a bit 8 of an identifier octet as an integral part of the octet group identifier. To ensure backward compatibility, subfield identifier shall not be defined with bit 8 set to 0.

The following codes are used in the subfields of the additional ATM cell rate parameter field:

- a) *Cell rate identifier*
 See Recommendations Q.2961.1 to Q.2961.6 for the coding. The codes given here are just for information.
- 1000 1000 Forward sustainable cell rate for cell loss priority = 0
 - 1000 1001 Backward sustainable cell rate for cell loss priority = 0
 - 1001 0000 Forward sustainable cell rate for cell loss priority = 0 + 1
 - 1001 0001 Backward sustainable cell rate for cell loss priority = 0 + 1
 - 1010 0000 Forward maximum burst size for cell loss priority = 0
 - 1010 0001 Backward maximum burst size for cell loss priority = 0
 - 1011 0000 Forward maximum burst size for cell loss priority = 0 + 1
 - 1011 0001 Backward maximum burst size for cell loss priority = 0 + 1
 - 1001 0010 Forward ABR minimum cell rate for cell loss priority = 0 + 1
 - 1001 0011 Backward ABR minimum cell rate for cell loss priority = 0 + 1
 - 1100 0000 Forward resource management peak cell rate

- 1100 0001 Backward resource management peak cell rate
- 1011 1110 Reserved (used for best effort indication)
- 1011 1111 Reserved (used for traffic management options in ITU-T Recommendation Q.2961)

Other codepoints are reserved.

b) *Cell rate*

The number of cells per second is coded in 3-octet binary representation. Bit 8 of the first octet (e.g. a + 1) is the most significant and bit 1 of the 3rd octet (e.g. a + 3) is the least significant respectively.

c) *Maximum burst size*

The maximum burst size in cells is coded in 3-octet binary representation. Bit 8 of the first octet (e.g. a + 1) is the most significant and bit 1 of the third octet (e.g. a + 3) is the least significant respectively.

NOTE 3 – The CLP bit of the resource management cell is always set to 0.

NOTE 4 – The forward/backward RM PCRs are not included in the forward/backward PCR values specified in the ATM cell rate parameter.

NOTE 5 – For details on the use of cell loss priority, see ITU-T Recommendation I.371.

7.6 Additional calling party number

The format of the additional calling party number parameter field is shown in Figure 10.

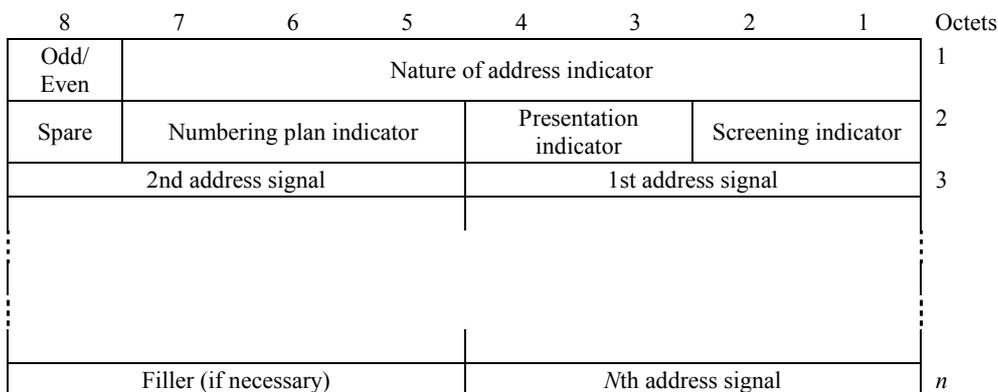


Figure 10/Q.2763 – Additional calling party number parameter field

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

- a) *Odd/even indicator*
 - 0 Even number of address signals.
 - 1 Odd number of address signals.
- b) *Nature of address indicator*
 - 0000000 Spare.
 - 0000001 Subscriber number.
 - 0000010 Unknown.
 - 0000011 National (significant) number.
 - 0000100 International number.

0000101	}	Spare.
to		
1101111		
1110000	}	Reserved for national use.
to		
1111110		
1111111		Spare.

c) *Numbering plan indicator*

000	Spare.
001	ISDN (telephony) numbering plan (see Recommendation E.164).
010	Spare.
011	Reserved for national use.
100	Reserved for national use.
101	Private numbering plan.
110	Reserved for national use.
111	Spare.

d) *Presentation indicator*

00	Presentation allowed.
01	Presentation restricted.
10	Address not available.
11	Spare.

e) *Screening indicator*

00	User provided, not verified.
01	User provided, verified and passed.
10	User provided, verified and failed.
11	Network provided.

f) *Address signal*

0000	Digit 0.	
0001	Digit 1.	
0010	Digit 2.	
0011	Digit 3.	
0100	Digit 4.	
0101	Digit 5.	
0110	Digit 6.	
0111	Digit 7.	
1000	Digit 8.	
1001	Digit 9.	
1010	}	Spare.
to		
1111		

g) *Filler*

In case of an odd number of address signals, the filler code 0000 is inserted after the last address signal.

7.7 Additional connected number

The format of the additional connected number parameter field corresponds to the format for the additional calling party parameter.

The encoding is identical to the encoding of the additional calling party number parameter field.

7.8 AESA for additional calling party

The format for the AESA for calling party parameter field is shown in Figure 11.

8	7	6	5	4	3	2	1	Octets
ext. 1	Coding standard		Reserved					1
Further contents as in Q.2931 calling party number IE starting with octet 5								2

Figure 11/Q.2763 – AESA for additional calling party parameter field

The codes to be used in the subfields of the AESA for additional calling party parameter field are defined in the calling party number information element in ITU-T Recommendation Q.2931.

7.9 AESA for additional connected party

The format for the AESA for connected party parameter field is shown in Figure 12.

8	7	6	5	4	3	2	1	Octets
ext. 1	Coding standard		Reserved					1
Further contents as in Q.2931 calling party number IE starting with octet 5								2

Figure 12/Q.2763 – AESA for additional connected party parameter field

The codes to be used in the subfields of the AESA for additional connected party parameter field are defined in the calling party number information element in ITU-T Recommendation Q.2931.

7.10 AESA for called party

The format of the AESA for called party parameter field is shown in Figure 13.

8	7	6	5	4	3	2	1	Octets
ext. 1	Coding standard		Reserved					1
Further contents as in Q.2931 calling party number IE starting with octet 5								2

Figure 13/Q.2763 – AESA for called party parameter field

The codes to be used in the subfields of the AESA for called party parameter field are defined in the called party number information in ITU-T Recommendation Q.2931.

7.11 AESA for calling party

The format for the AESA for calling party parameter field is shown in Figure 14.

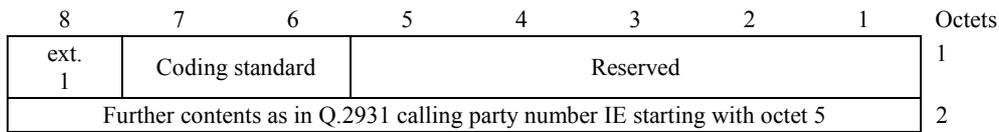


Figure 14/Q.2763 – AESA for calling party parameter field

The codes to be used in the subfields of the AESA for calling party parameter field are defined in the calling party number information element in ITU-T Recommendation Q.2931. The values "user provided, not screened", and "user provided, verified and failed" of the screening indicator are not applicable.

7.12 AESA for connected party

The format for the AESA for connected party parameter field is shown in Figure 15.

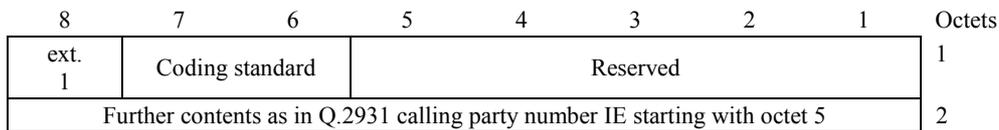


Figure 15/Q.2763 – AESA for connected party parameter field

The codes to be used in the subfields of the AESA for connected party parameter field are defined in the calling party number information element in ITU-T Recommendation Q.2931. The values "user provided, not screened", and "user provided, verified and failed" of the screening indicator are not applicable.

7.13 Alternative ATM cell rate

The format for the alternative ATM cell rate parameter field corresponds to the format of the additional ATM cell rate parameter.

The following codes are used in the subfields of the alternative ATM cell rate parameter field:

a) *Cell rate identifier (octet 1)*

See ITU-T Recommendations Q.2931 and Q.2962 for the coding. The codes given here are just for information.

- 10000010 Forward peak cell rate for cell loss priority = 0
- 10000011 Backward peak cell rate for cell loss priority = 0
- 10000100 Forward peak cell rate for cell loss priority = 0 + 1
- 10000101 Backward peak cell rate for cell loss priority = 0 + 1
- 10001000 Forward sustainable cell rate for cell loss priority = 0
- 10001001 Backward sustainable cell rate for cell loss priority = 0
- 10010000 Forward sustainable cell rate for cell loss priority = 0 + 1
- 10010001 Backward sustainable cell rate for cell loss priority = 0 + 1

- 10100000 Forward maximum burst size for cell loss priority = 0
- 10100001 Backward maximum burst size for cell loss priority = 0
- 10110000 Forward maximum burst size for cell loss priority = 0 + 1
- 10110001 Backward maximum burst size for cell loss priority = 0 + 1
- 10111111 Reserved (used for traffic management options in ITU-T Recommendation Q.2961)

Other codepoints are reserved.

b) *Cell rate*

The encoding is identical to the encoding of the additional ATM cell rate parameter field.

c) *Maximum burst size*

The encoding is identical to the encoding of the additional ATM cell rate parameter field.

7.14 Application generated identifier

The format of the application generated identifier is shown in Figure 16.

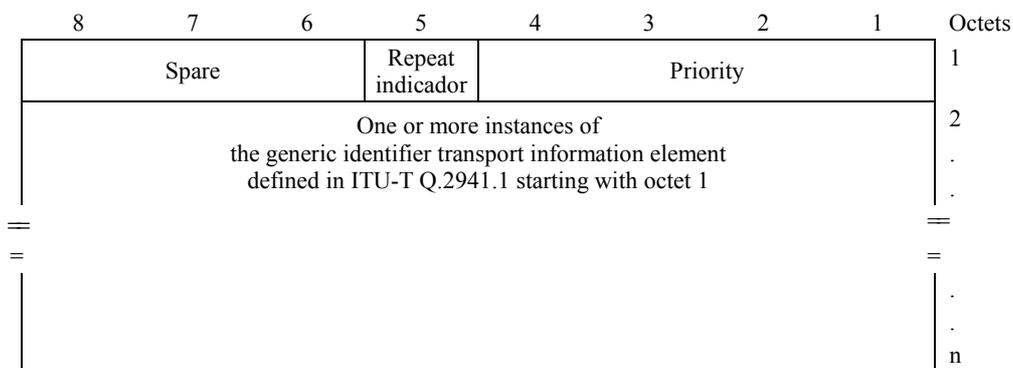


Figure 16/Q.2763 – Application generated identifier parameter field

The following codes are used in the subfields of the application generated identifier parameter field.

a) *Repeat indicator (octet 1)*

0 Information element not repeated.

1 Information element repeated.

b) *Priority (octet 1)*

0000 No prioritized order.

0001 Prioritized list for selecting one possibility: ascending order.

0010 Prioritized list for selecting one possibility: descending order.

0011 }
to } Reserved.
1111 }

7.15 Application transport

The format for the application transport parameter field is shown in Figure 17.

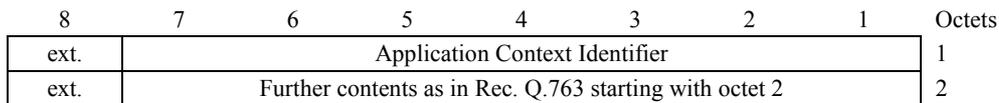


Figure 17/Q.2763 – Application transport parameter field

7.16 ATC setup parameters

The format of the ATC setup parameters parameter field is shown in Figure 18.

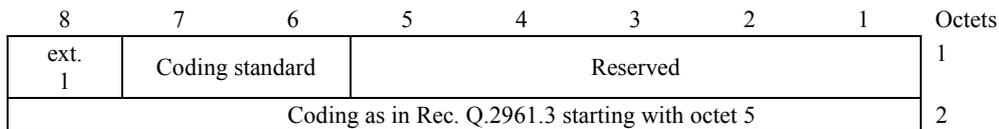


Figure 18/Q.2763 – ATC setup parameters parameter field

7.17 ATM cell rate

The format of the ATM cell rate parameter field corresponds to the format of the additional ATM cell rate parameter.

The following codes are used in the subfields of the additional ATM cell rate parameter field:

a) *Cell rate identifier*

See ITU-T Recommendation Q.2931 for the encoding. The codes given here are just for information.

- 10000010 Forward peak cell rate for Cell Loss Priority = 0.
- 10000011 Backward peak cell rate for Cell Loss Priority = 0.
- 10000100 Forward peak cell rate for Cell Loss Priority = 0 + 1.
- 10000101 Backward peak cell rate for Cell Loss Priority = 0 + 1.

b) *Cell rate*

The encoding is identical to the encoding of the additional ATM cell rate parameter field.

7.18 Automatic congestion level

The format of the automatic congestion level parameter field is shown in Figure 19.

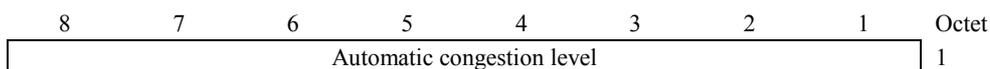


Figure 19/Q.2763 – Automatic congestion level parameter field

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

- a) *Automatic congestion level*
- | | |
|----------|------------------------------|
| 00000000 | Spare. |
| 00000001 | Congestion level 1 exceeded. |
| 00000010 | Congestion level 2 exceeded. |
| 00000011 | } Spare. |
| to | |
| 11111111 | |

7.19 Automatic re-routing (crankback)

The format of the automatic re-routing parameter field is shown in Figure 20.

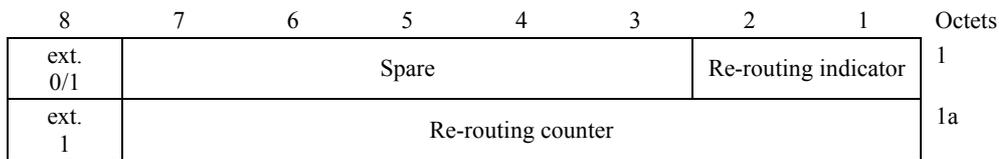


Figure 20/Q.2763 – Automatic re-routing parameter field

The following codes are used in the subfields of the automatic re-routing parameter field:

- a) *Extension indicator (ext.)*
- | | |
|---|--------------------------------------------------------------|
| 0 | Octet continues through the next octet (e.g. octet 1 to 1a). |
| 1 | Last octet. |
- b) *Re-routing inhibit indicator*
- | | |
|----|-------------------|
| 00 | No indication. |
| 01 | Do not crankback. |
| 10 | Do crankback. |
| 11 | Spare. |
- c) *Re-routing counter*
- Number of automatic re-routing attempts performed on that call/connection expressed as a binary number between 1 and 127.
- | | |
|--------|--------------------------|
| 000000 | Not used. |
| 000001 | 1st crankback attempt. |
| 000010 | } 2nd crankback attempt. |
| to | |
| 111111 | |

7.20 Backward GVNS

The format of the backward GVNS parameter field is shown in Figure 21.

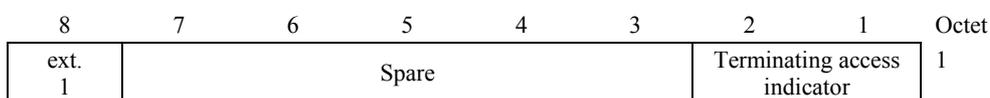


Figure 21/Q.2763 – Backward GVNS parameter field

The following codes are used in the backward GVNS parameter field:

- bits 1-2 Terminating access indicator.
 - 0 0 No information.
 - 0 1 Dedicated terminating access.
 - 1 0 Switched terminating access.
 - 1 1 Spare.
- bits 3-7 Spare.
- bit 8 Extension indicator.
 - 0 Information continues through the next octet.
 - 1 Last octet.

7.21 Backward narrow-band interworking indicator

The format of the backward narrow-band interworking indicator parameter field is shown in Figure 22.

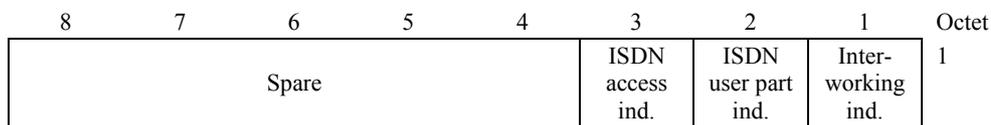


Figure 22/Q.2763 – Backward narrow-band interworking indicator parameter field

The following codes are used in the subfields of the backward narrow-band interworking indicator parameter field:

- a) *ISDN access indicator*
 - 0 Terminating access non-ISDN.
 - 1 Terminating access ISDN.
- b) *ISDN user part indicator*
 - 0 ISDN user part not used all the way.
 - 1 ISDN user part used all the way.
- c) *Interworking indicator*
 - 0 No interworking encountered (No. 7 signalling all the way).
 - 1 Interworking encountered.

7.22 Broadband bearer capability

The format of the broadband bearer capability parameter field is shown in Figure 23.

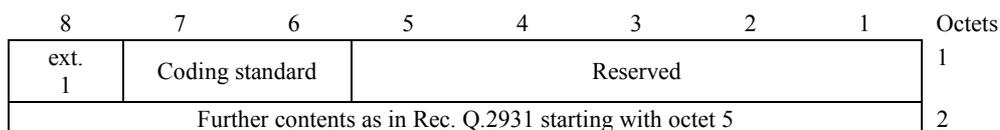


Figure 23/Q.2763 – Broadband bearer capability parameter field

The codes to be used in the subfields of the broadband bearer capability parameter field are defined in the broadband bearer capability information element in 4.5.7/Q.2931 and extended as indicated in ITU-T Recommendation Q.2961.2 to enable the explicit indication of ATM transfer capability.

The coding of subfields for ABR services is given in ITU-T Recommendation Q.2961.3. The code of subfields for ABT ATC is given in ITU-T Recommendation Q.2961.4. The additional codepoints for SBR2 and SBR3 ATM transfer capabilities are specified in ITU-T Recommendation Q.2961.6.

The coding of subfields for Frame Relay call/connections is given in ITU-T Recommendation Q.2933.

7.23 Broadband high layer information

The format of the broadband high layer information parameter field is shown in Figure 24.

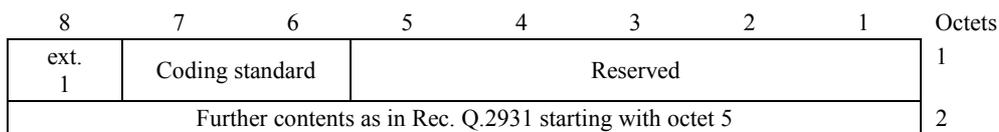


Figure 24/Q.2763 – Broadband high layer information parameter field

The codes to be used in the subfields of the broadband high layer information parameter field are defined in the broadband high layer information elements in ITU-T Recommendation Q.2931.

7.24 Broadband low layer information

The format of the broadband low layer information parameter field is shown in Figure 25.

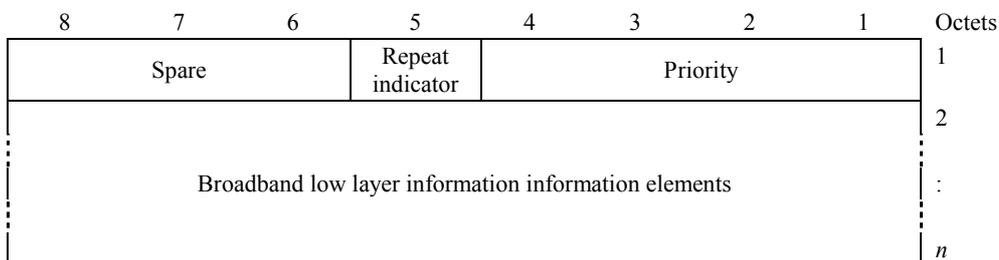


Figure 25/Q.2763 – Broadband low layer information parameter field

The following codes are used in the subfields of the broadband low layer information parameter field.

- a) *Repeat indicator (octet 1)*
 - 0 Information element not repeated.
 - 1 Information element repeated.
- b) *Priority (octet 1)*
 - 0000 No prioritized order.
 - 0001 Prioritized list for selecting one possibility: ascending order.
 - 0010 Prioritized list for selecting one possibility: descending order.
 - 0011 }
to } Reserved.
1111 }

c) *Broadband low layer information information elements (octets 2 to n)*

This field contains all broadband low layer information elements as received from DSS2. The format of the broadband low layer information elements is the same as specified in ITU-T Recommendation Q.2931. The order of the information elements is not changed.

7.25 Call diversion information

The format of the call diversion information parameter field is shown in Figure 26.

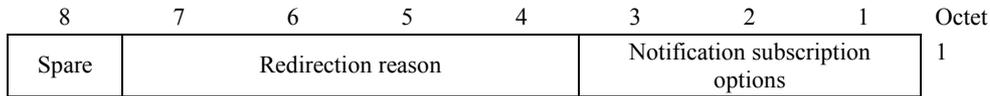


Figure 26/Q.2763 – Call diversion information parameter field

The following codes are used in the call diversion information parameter field:

a) *Redirection reason*

- 0000 Unknown.
- 0001 User busy.
- 0010 No reply.
- 0011 Unconditional.
- 0100 Deflection during alerting.
- 0101 Deflection immediate response.
- 0110 Mobile subscriber not reachable.
- 0011 }
to } Spare.
1111 }

b) *Notification subscription options*

- 000 Unknown.
- 001 Presentation not allowed.
- 010 Presentation allowed with redirection number.
- 011 Presentation allowed without redirection number.
- 100 }
to } Spare.
111 }

7.26 Call diversion may occur

The format of the call diversion may occur parameter field is shown in Figure 27.

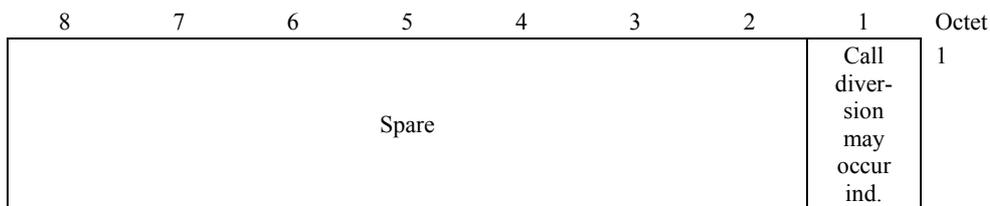


Figure 27/Q.2763 – Call diversion may occur parameter field

The following codes are used in the subfields of the call diversion may occur parameter field:

a) *Call diversion may occur indicator*

0 No indication.

1 Call diversion may occur.

7.27 Call diversion treatment indicators

The format of the call diversion treatment indicators parameter field is shown in Figure 28.

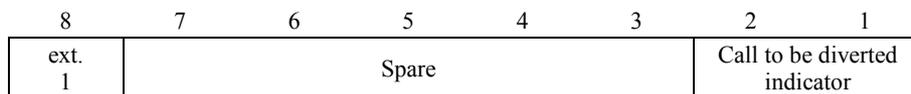


Figure 28/Q.2763 – Call diversion treatment indicators parameter field

The following codes are used in the call diversion treatment parameter field:

bits 1-2 Call to be diverted indicator.

0 0 No indication.

0 1 Call diversion allowed.

1 0 Call diversion not allowed.

1 1 Spare.

bits 3-7 Spare.

bit 8 Extension indicator.

0 Information continues through the next octet.

1 Last octet.

7.28 Call history information

The format of the call history information parameter field is shown in Figure 29.

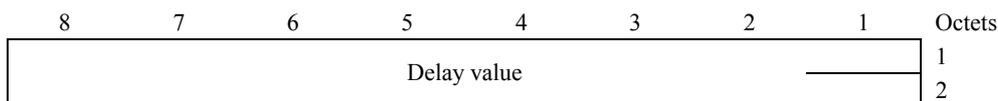


Figure 29/Q.2763 – Call history information parameter field

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

a) *Delay value (octets 1 to 2)*

The delay value expresses in pure binary representation the propagation delay value of a call in ms. Bit 8 of octet 1 is the most significant and bit 1 of octet 2 is the least significant respectively.

7.29 Call offering treatment indicators

The format of the call offering treatment indicators parameter field is shown in Figure 30.

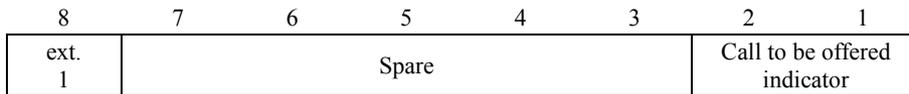


Figure 30/Q.2763 – Call offering treatment indicators parameters field

The following codes are used in the call offering treatment parameter field:

- bits 1-2 Call to be offered indicator.
 - 0 0 No indication.
 - 0 1 Call offering not allowed.
 - 1 0 Call offering allowed.
 - 1 1 Spare.
- bits 3-7 Spare.
- bit 8 Extension indicator.
 - 0 Information continues through the next octet.
 - 1 Last octet.

7.30 Call transfer number

The format of the call transfer number parameter field is shown in Figure 31.

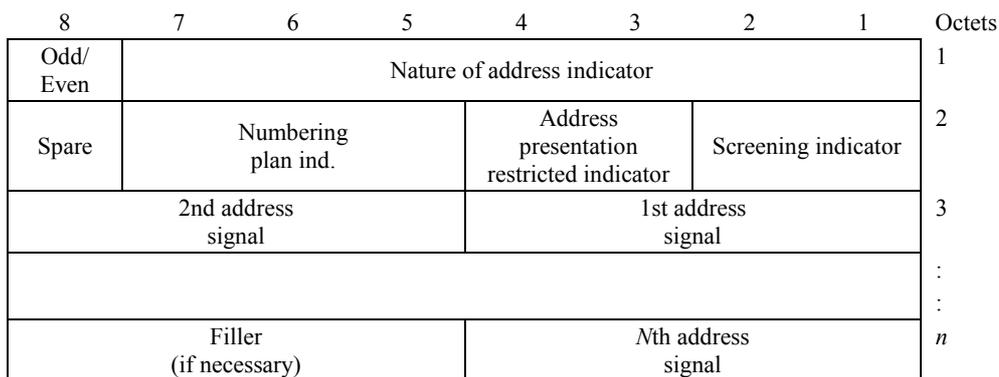


Figure 31/Q.2763 – Call transfer number parameter field

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

- a) *Odd/Even indicator*
- 0 Even number of address signals.
 - 1 Odd number of address signals.

- b) *Nature of address indicator*
- | | |
|---------|-----------------------------------------------|
| 0000000 | Spare. |
| 0000001 | Subscriber number (national use). |
| 0000010 | Unknown (national use). |
| 0000011 | National (significant) number (national use). |
| 0000100 | International number. |
| 0000101 | } Spare. |
| to | |
| 1101111 | } Reserved for national use. |
| 1110000 | |
| to | |
| 1111110 | |
| 1111111 | Spare. |
- c) *Numbering plan indicator*
- | | |
|-----|------------------------------------------------------------------|
| 000 | Spare. |
| 001 | ISDN (Telephony) numbering plan (ITU-T Recommendation E.164). |
| 010 | Spare. |
| 011 | Data numbering plan (ITU-T Recommendation X.121) (national use). |
| 100 | Telex numbering plan (ITU-T Recommendation F.69) (national use). |
| 101 | Private numbering plan (national use). |
| 100 | Reserved for national use. |
| 110 | Spare. |
- d) *Address presentation restricted indicator*
- | | |
|----|--------------------------|
| 00 | Presentation allowed. |
| 01 | Presentation restricted. |
| 10 | Spare. |
| 11 | Spare. |
- e) *Screening indicator*
- | | |
|----|-------------------------------------|
| 00 | User provided, not verified |
| 01 | User provided, verified and passed. |
| 10 | User provided, verified and failed. |
| 11 | Network provided. |
- f) *Address signal*
- | | |
|------|----------|
| 0000 | Digit 0. |
| 0001 | Digit 1. |
| 0010 | Digit 2. |
| 0011 | Digit 3. |
| 0100 | Digit 4. |
| 0101 | Digit 5. |
| 0110 | Digit 6. |

0111	Digit 7.
1000	Digit 8.
1001	Digit 9.
1010	Spare.
1011	Code 11.
1101	Code 12.
1101	} Spare.
to	
1111	

The most significant address signal is sent first. Subsequent address signals are sent in successive 4-bit fields.

g) *Filler*

In case of an odd number of digits, the filler code 0000 is inserted after the last digit.

7.31 Call transfer reference

The format of the call transfer reference parameter is shown in Figure 32.

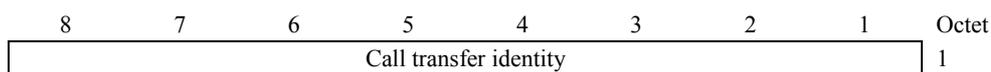


Figure 32/Q.2763 – Call transfer reference parameter field

The call transfer identity is a pure binary representation of the integer (0 to 255) assigned unambiguously to the particular ECT supplementary service invocation (see clause 7/Q.732).

7.32 Called IN number

The format of the called IN number parameter corresponds to the format of the original called party number parameter.

7.33 Called party number

The format of the called party number parameter field is shown in Figure 33.

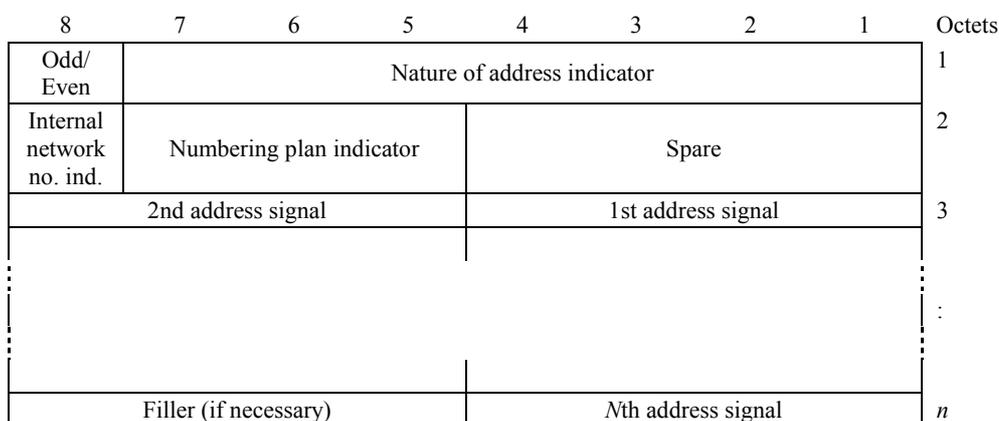


Figure 33/Q.2763 – Called party number parameter field

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

- a) *Odd/Even indicator (octet 1)*
- | | |
|---|---------------------------------|
| 0 | Even number of address signals. |
| 1 | Odd number of address signals. |
- b) *Nature of address indicator (octet 1)*
- | | |
|---------|-----------------------------------|
| 0000000 | Spare. |
| 0000001 | Subscriber number (national use). |
| 0000010 | Unknown (national use). |
| 0000011 | National (significant) number. |
| 0000100 | International number. |
| 0000101 | } Spare. |
| to | |
| 1101111 | } Reserved for national use. |
| 1110000 | |
| to | |
| 1111110 | } Spare. |
| 1111111 | |
- c) *Internal network number indicator (octet 2)*
- | | |
|---|-------------------------------------------------|
| 0 | Routing to internal network number allowed. |
| 1 | Routing to internal network number not allowed. |
- d) *Numbering plan indicator (octet 2)*
- | | |
|-----|-------------------------------------------------------------------|
| 000 | Spare. |
| 001 | ISDN (telephony) numbering plan (see ITU-T Recommendation E.164). |
| 010 | Spare. |
| 011 | Reserved for national use. |
| 100 | Reserved for national use. |
| 101 | Reserved for national use. |
| 110 | Reserved for national use. |
| 111 | Spare. |
- e) *Address signal (octets 3 to n)*
- | | |
|------|----------|
| 0000 | Digit 0. |
| 0001 | Digit 1. |
| 0010 | Digit 2. |
| 0011 | Digit 3. |
| 0100 | Digit 4. |
| 0101 | Digit 5. |
| 0110 | Digit 6. |
| 0111 | Digit 7. |
| 1000 | Digit 8. |
| 1001 | Digit 9. |

1010	Spare.
1011	Code 11.
1100	Code 12.
1101	Spare.
1110	Spare.
1111	ST.

The most significant address signal is sent first. Subsequent address signals are sent in successive 4-bit fields.

f) *Filler (octet n)*

In case of an odd number of address signals, the filler code 0000 is inserted after the last address signal.

7.34 Called party sub-address

The format of the called party sub-address parameter field is shown in Figure 34.

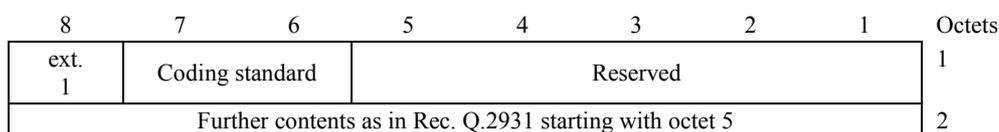


Figure 34/Q.2763 – Called party sub-address parameter field

The codes to be used in the subfields of the called party sub-address parameter field are defined in the called party sub-address information element in ITU-T Recommendation Q.2931.

7.35 Called party's indicators

The format of the called party's indicators parameter field is shown in Figure 35.

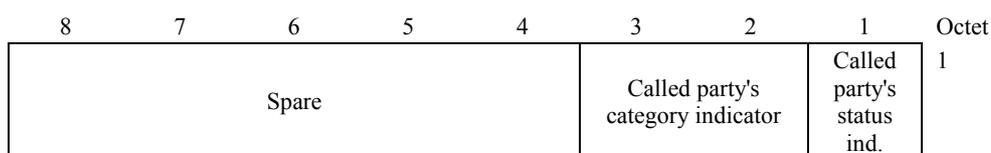


Figure 35/Q.2763 – Called party's indicators parameter field

The following codes are used in the subfields of the called party's indicators parameter field:

- a) *Called party's category indicator*
- | | |
|----|----------------------|
| 00 | No indication. |
| 01 | Ordinary subscriber. |
| 10 | Payphone. |
| 11 | Spare. |
- b) *Called party's status indicator*
- | | |
|---|----------------|
| 0 | No indication. |
| 1 | Alerting. |

7.36 Calling party number

The format of the calling party number parameter field is shown in Figure 36.

8	7	6	5	4	3	2	1	Octets
Odd/ Even	Nature of address indicator							1
Calling party no. incom- plete ind.	Numbering plan indicator			Address presentation restricted ind.		Screening indicator		2
2nd address signal				1st address signal				3
:								:
Filler (if necessary)				Nth address signal				n

Figure 36/Q.2763 – Calling party number parameter field

NOTE 1 – When the address presentation restricted indicator indicates address not available, octets 3 to *n* are omitted.

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

- a) *Odd/Even indicator (octet 1)*
 - 0 Even number of address signals.
 - 1 Odd number of address signals.
- b) *Nature of address indicator (octet 1)*
 - 0000000 Spare.
 - 0000001 Subscriber number (national use).
 - 0000010 Unknown (national use).
 - 0000011 National (significant) number (national use).
 - 0000100 International number.
 - 0000101 } Spare.
 - to
 - 1101111 } Spare.
 - 1110000 } Reserved for national use.
 - to
 - 1111110 } Reserved for national use.
 - 1111111 Spare.
- c) *Calling party number incomplete indicator (octet 2) (national use)*
 - 0 Complete.
 - 2 Incomplete (national use).

d) *Numbering plan indicator (octet 2)*

000	Spare.
001	ISDN (telephony) numbering plan (see ITU-T Recommendation E.164).
010	Spare.
011	Reserved for national use.
100	Reserved for national use.
101	Reserved for national use.
111	Spare.

e) *Address presentation restricted indicator (octet 2)*

00	Presentation allowed.
01	Presentation restricted
10	Address not available (see Note 2) (national use).
11	Spare

NOTE 2 – When the address is unavailable, the subfields in items a), b), c) and d) are coded with 0's.

f) *Screening indicator (octet 2)*

00	Reserved (see Note 3).
01	User provided, verified and passed.
10	Reserved (see Note 3).
11	Network provided.

NOTE 3 – Code 00 and 10 are reserved for "user provided, not verified" and "user provided, verified and failed" respectively. Codes 00 and 10 are for national use.

g) *Address signal (octets 3 to n)*

0000	Digit 0.
0001	Digit 1.
0010	Digit 2.
0011	Digit 3.
0100	Digit 4.
0101	Digit 5.
0110	Digit 6
0111	Digit 7.
1000	Digit 8.
1001	Digit 9.
1010	Spare.
1011	Code 11.
1100	Code 12.
1101	} Spare.
to	
1111	

h) *Filler (octet n)*

In case of an odd number of address signals, the filler code 0000 is inserted after the last address signal.

7.37 Calling party sub-address

The format of the calling party sub-address parameter field corresponds to the format shown for the called party sub-address parameter.

The codes to be used in the subfields of the calling party sub-address parameter field are defined in the calling party sub-address information element in ITU-T Recommendation Q.2931.

7.38 Calling party's category

The format of the calling party's category parameter field is shown in Figure 37.

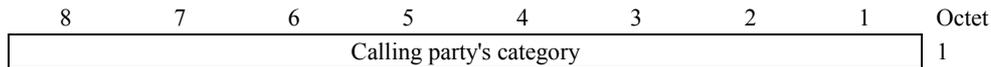


Figure 37/Q.2763 – Calling party's category parameter field

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

- a) *Calling party's category*
- | | |
|----------|-----------------------------------------------------------------------------------------|
| 00000000 | Calling party's category unknown at this time (national use). |
| 00000001 | Operator, French language. |
| 00000010 | Operator, English language. |
| 00000011 | Operator, German language. |
| 00000100 | Operator, Russian language. |
| 00000101 | Operator, Spanish language. |
| 00000110 | } Available to Administrations for selecting a particular language by mutual agreement. |
| to | |
| 00001000 | |
| 00001001 | Reserved (see ITU-T Recommendation Q.104) (see Note) (national use). |
| 00001010 | Ordinary calling subscriber. |
| 00001011 | Calling subscriber with priority. |
| 00001100 | Data call (voice band data). |
| 00001101 | Test call. |
| 00001110 | Spare. |
| 00001111 | Payphone. |
| 00010000 | } Spare. |
| to | |
| 11011111 | |
| 11100000 | } Reserved for national use. |
| to | |
| 11111110 | |
| 11111111 | Spare. |

NOTE – In national networks, code 00001001 may be used to indicate that the calling party is a national operator.

7.39 Cause indicators

The encoding of the cause indicators parameter field is shown in ITU-T Recommendation Q.2610.

7.40 CCSS

The format of the CCSS parameter field is shown in Figure 38.

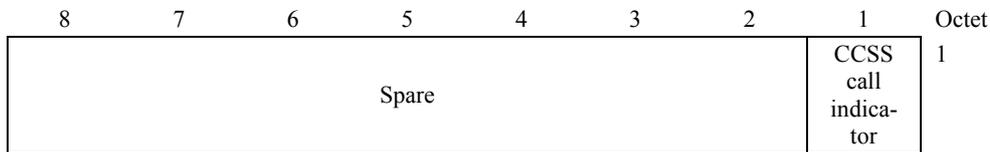


Figure 38/Q.2763 – CCSS parameter field

The following codes are used in the CCSS parameter field:

- bit 1 CCSS call indicator.
- 0 No indication.
- 1 CCSS call.
- bits 2-8 Spare.

7.41 CDVT

The format of the CDVT parameter field is shown in Figure 39.

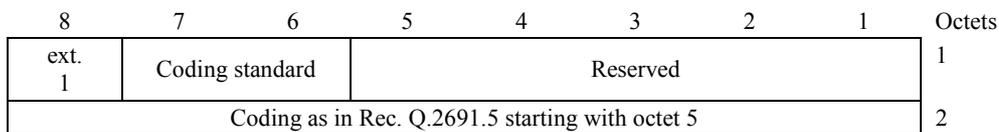


Figure 39/Q.2763 – CDVT parameter field

7.42 Charge indicator

The format of the charge indicator parameter field is shown in Figure 40.



Figure 40/Q.2763 – Charge indicator parameter field

The following codes are used in the charge indicator parameter field:

- a) *Charge indicator*
- 0 No charge.
- 1 Charge.

NOTE – The interpretation of these bits depends only on the charging exchange.

7.43 Charged party identification (national use)

The format of the charged party identification parameter is national network specific. The format is similar to the format of the corresponding INAP parameter in the "FurnishChargingInformation" operation (see ITU-T Recommendation Q.1218).

7.44 Closed User Group information

The format of the Closed User Group (CUG) information parameter field is shown in Figure 41.

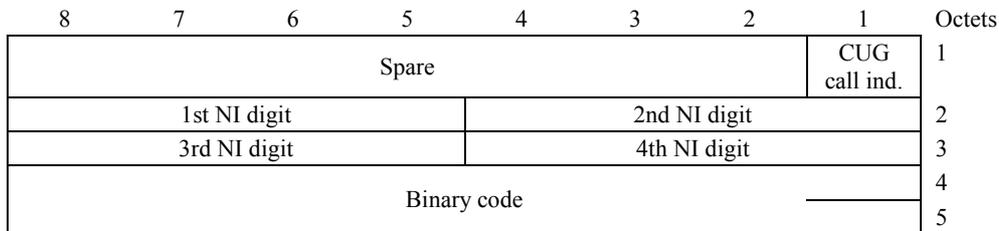


Figure 41/Q.2763 – Closed User Group information parameter field

The following codes are used in the subfields of the Closed User Group information parameter field:

a) *CUG call indicator (octet 1)*

- 0 Closed User Group call, outgoing access allowed.
- 1 Closed User Group call, outgoing access not allowed.

b) *Network identity (NI) (octets 2 and 3)*

Each digit is coded in binary coded decimal representation from 0 to 9.

If the first digit of this field is coded 0 or 9, the TCC (Telephony Country Code) follows in the second to fourth NI digits (the most significant TCC digit is in the 2nd NI digit). If the TCC is one or two digits long, the excess digit(s) is inserted with the code for ROA or network identification, if necessary. If octet 3 is not required, it is coded all zeros.

Coding of the first digit as 1 or 8 is excluded.

If the first digit is not 0, 9, 1 or 8, this field contains a DNIC (Data Network Identification Code) as defined in ITU-T Recommendation X.121.

c) *Binary code (octets 4 and 5)*

A code allocated to a Closed User Group administered by a particular ISDN or data network. Bit 8 of octet 4 is the most significant and bit 1 of octet 5 is the least significant respectively.

NOTE – Octets 2 to 5 constitute the Closed User Group interlock code.

7.45 Collect call request

The format of the collect call request parameter field is shown in Figure 42.

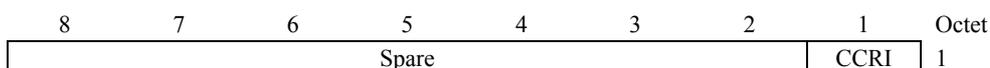


Figure 42/Q.2763 – Collect call request parameter field

The following codes are used in the collect call request parameter field:

- bit 1 Collect call request indicator.
- 0 No indication.
- 1 Collect call requested.
- bits 2-8 Spare.

7.46 Conference treatment indicators

The format of the conference treatment indicators parameter field is shown in Figure 43.

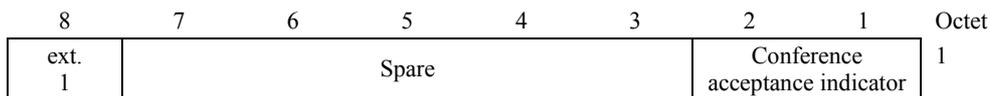


Figure 43/Q.2763 – Conference treatment indicators parameter field

The following codes are used in the conference treatment parameter field:

- bits 1-2 Conference acceptance indicator (Note).
 - 0 0 No indication.
 - 0 1 Accept conference request.
 - 1 0 Reject conference request.
 - 1 1 Spare.
- NOTE – Applicable to the conference and three-party supplementary services.
- bits 3-7 Spare.
 - bit 8 Extension indicator.
 - 0 Information continues through the next octet.
 - 1 Last octet.

7.47 Connected line identity request

The format of the connected line identity request parameter field is shown in Figure 44.

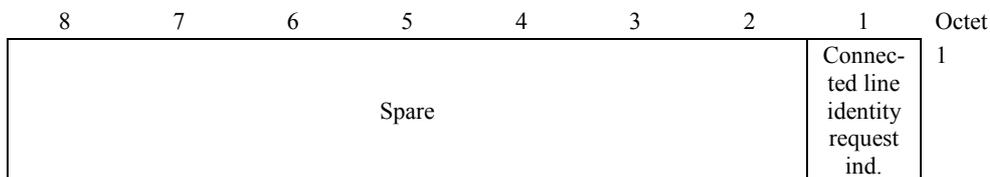


Figure 44/Q.2763 – Connected line identity request parameter field

The following codes are used in the connected line identity request parameter field:

- a) *Connected line identity request indicator*
- 0 Not requested.
- 1 Requested.

7.48 Connected number

The format of the connected number parameter field corresponds to the format shown in Figure 45.

	8	7	6	5	4	3	2	1	Octets
Odd/ Even	Nature of address indicator								1
Spare	Numbering plan indicator			Address presentation restricted ind.		Screening indicator			2
	2nd address signal				1st address signal				3
	:				:				:
	Fill (if necessary)				Nth address signal				n

Figure 45/Q.2763 – Connected number parameter field

NOTE 1 – When the address presentation restricted indicator indicates address not available, octets 3 to *n* are omitted, and the screening indicator is set to 11 network provided.

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

- a) *Odd/Even indicator (octet 1)*
0 Even number of address signals.
1 Odd number of address signals.
- b) *Nature of address indicator (octet 1)*
See Called party number parameter for coding.
- c) *Numbering plan indicator (octet 2)*
See Called party number parameter for coding.
- d) *Address presentation restricted indicator (octet 2)*
00 Presentation allowed.
01 Presentation restricted.
10 Address not available (see Note 2).
11 Spare.

NOTE 2 – When the address is unavailable, the subfields in items a), b), and c) are coded with 0's.

- e) *Screening indicator (octet 2)*
See Calling party number parameter for coding.
- f) *Address signal (octets 2 to n)*
See Calling party number parameter for coding.
- g) *Filler (octet n)*
In case of an odd number of address signals, the filler code 0000 is inserted after the last address signal.

7.49 Connected sub-address

The format of the connected sub-address parameter field corresponds to the format shown for the called party sub-address parameter.

The codes to be used in the subfields of the connected sub-address parameter field are defined in the connected sub-address information element in ITU-T Recommendation Q.2951.

7.50 Connection element identifier

The format of the connection element identifier parameter field is shown in Figure 46.

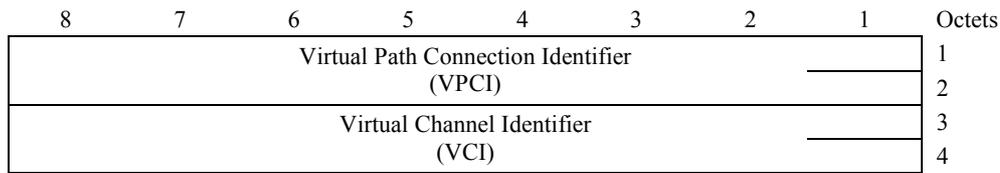


Figure 46/Q.2763 – Connection element identifier parameter field

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

a) *Virtual Path Connection Identifier (octets 1 and 2)*

A code expressing in pure binary representation the identifier of the virtual path connection (see Note 1). Bit 8 of octet 1 is the most significant and bit 1 of octet 2 is the least significant respectively.

NOTE 1 – The VPCI is an identifier that represents a VPC on a given interface. The value of this field is not identical to the value used in the VPI field of the corresponding ATM cell header.

b) *Virtual Channel Identifier (octets 3 and 4)*

A code expressing in pure binary representation the identifier of the virtual channel (see Notes 2 and 3). Bit 8 of octet 3 is the most significant and bit 1 of octet 4 is the least significant respectively.

NOTE 2 – The value of this field is the same as the value used in the VCI field of the corresponding ATM cell header.

NOTE 3 – Octets 3 and 4 are omitted if the entire virtual path connection is addressed.

NOTE 4 – Consistency with ITU-T Recommendation I.361 for pre-assigned VPI/VCI values should be assured.

7.51 Connection identifier

The format of the connection identifier parameter field is shown in Figure 47.

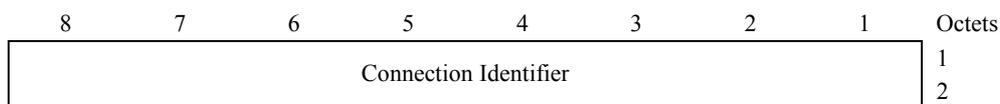


Figure 47/Q.2763 – Connection identifier parameter field

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

a) *Connection Identifier*

A bit string representing the identification allocated to the connection within a call.

7.52 Consistency check result information

The format of the consistency check result information parameter field is shown in Figure 48.



Figure 48/Q.2763 – Consistency check result information parameter field

The following codes are used in the subfields of the consistency check result information parameter field:

- a) *VPCI check result indicator*
- 00 Virtual Path Connection Identifier check NOT successful.
 - 01 Virtual Path Connection Identifier check successful.
 - 10 Virtual Path Connection Identifier check not performed.
 - 11 Spare.

7.53 Correlation ID

The format of the correlation ID parameter field is shown in Figure 49.

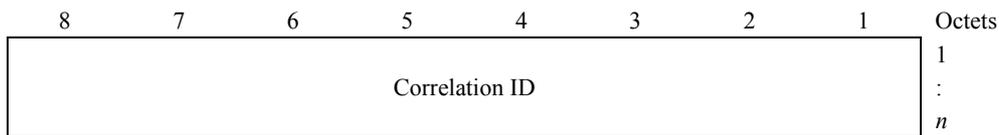


Figure 49/Q.2763 – Correlation ID parameter field

The correlation ID is coded as described in ITU-T Recommendation Q.1218.

7.54 Destination connection link identifier

The format of the destination connection link identifier field is shown in Figure 50.

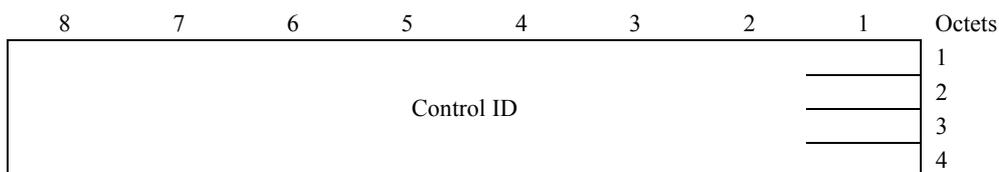


Figure 50/Q.2763 – Destination connection link identifier parameter field

The following codes are used in the subfields of the destination connection link identifier parameter field:

- a) *Control ID*
- A bit string representing the identification of the connection link association.

7.55 Destination signalling identifier (DSID)

The format of the destination signalling identifier parameter field is shown in Figure 51.

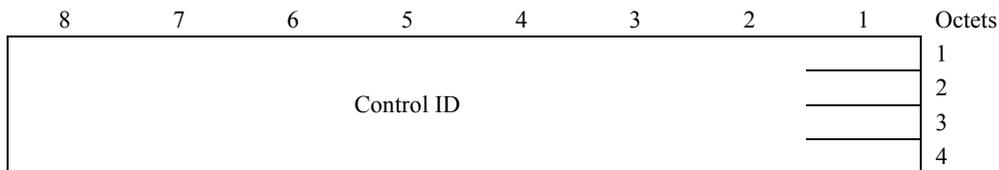


Figure 51/Q.2763 – Destination signalling identifier parameter field

The following codes are used in the subfields of the destination signalling identifier parameter field:

a) *Control ID*

A bit string representing the identification allocated to the signalling association.

7.56 Display information

The format of the display information parameter field is shown in Figure 52.

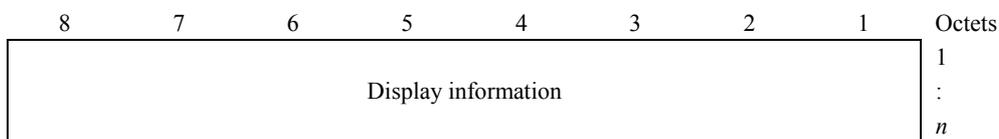


Figure 52/Q.2763 – Display information parameter field

The display information is coded as described in ITU-T Recommendation Q.931.

7.57 Echo control information

The format of the echo control information parameter field is shown in Figure 53.

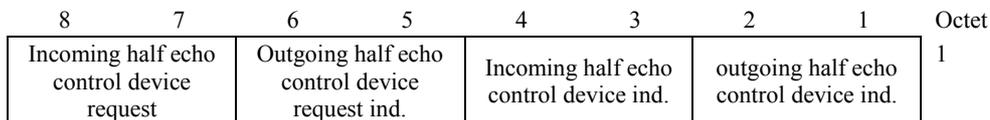


Figure 53/Q.2763 – Echo control information parameter field

The following codes are used in the echo control information parameter field:

a) *Incoming echo control device request indicator*

- 00 No information.
- 01 Incoming echo control device activation request.
- 10 Incoming echo control device deactivation request.
- 11 Spare.

b) *Outgoing echo control device request indicator*

- 00 No information.
- 01 Outgoing echo control device activation request.
- 10 Outgoing echo control device deactivation request.
- 11 Spare.

- c) *Incoming echo control device indicator*
 - 00 No information.
 - 01 Incoming echo control device not included.
 - 10 Incoming echo control device included.
 - 11 Spare.
- d) *Outgoing echo control device indicator*
 - 00 No information.
 - 01 Outgoing echo control device not included.
 - 10 Outgoing echo control device included.
 - 11 Spare.

7.58 End-to-end transit delay network generated indicator

The format of the end-to-end transit delay network generated indicator parameter field is shown in Figure 54.



Figure 54/Q.2763 – End-to-end transit delay network generated indicator parameter field

The following codes are used in the End-to-end Transit Delay Network Generated Indication:

- 00000000 No indication.
- 00000001 Network generated.
- 00000010 User generated.
- 00000011 } Spare.
- to }
- 11111111 }

7.59 Exclusive connection element identifier

The format of the exclusive connection element identifier parameter is shown in Figure 55.

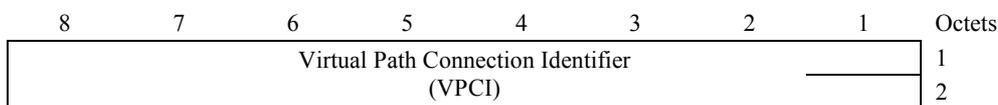


Figure 55/Q.2763 – Exclusive connection element identifier parameter field

The following codes are used in the subfields of the Exclusive connection element identifier parameter field:

- a) *Virtual Path Connection Identifier VPCI (octets 1 and 2)*
 A code expressing in pure binary representation the identifier of the virtual path connection (see Note). Bit 8 of octet 1 is the most significant and bit 1 of octet 2 is the least significant respectively.

NOTE – The VPCI is an identifier that represents a VPC on a given interface. The value of this field is not identical to the value used in the VPI field of the corresponding ATM cell header.

7.60 Extended Quality of Service

The extended quality of service parameter field is shown in Figure 56.

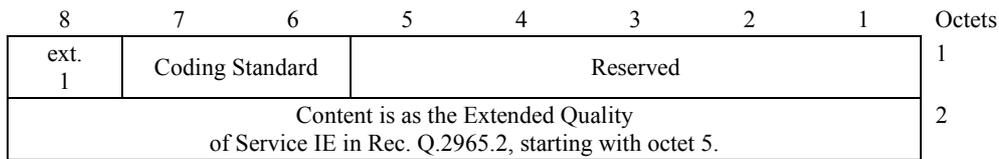


Figure 56/Q.2763 – Extended Quality of Service parameter field

In addition to the notes associated with Figure 2/Q.2965.2, the following comment apply to the Extended Quality of Service parameter.

The Acceptable Forward/Backward Cell Delay Variation and Cell Loss Ratio are not used for routing purpose and are carried transparently.

7.61 Forward GVNS

The format of the forward GVNS parameter field is shown in Figures 57-1 to 57-4.

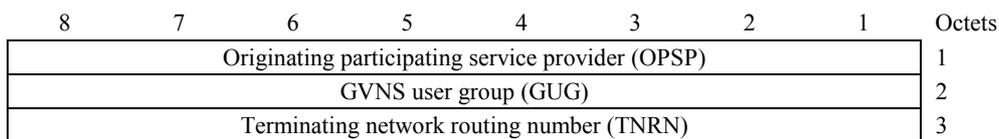


Figure 57-1/Q.2763 – Forward GVNS parameter field

The following codes are used in the subfields of the forward GVNS parameter:

a) *Originating participating service provider*

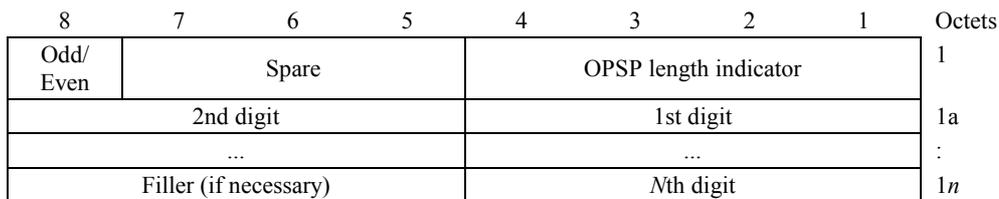


Figure 57-2/Q.2763 – Originating participating service provider subfield

1) *Odd/Even indicator (O)*

0 Even number of digits.

1 Odd number of digits.

2) *OPSP length indicator*

Number of octets to follow. The maximum number of octets is 4 allowing for a maximum number of digits to 7.

3) *Digit*

Digit string in BCD encoding of flexible length representing the originating participating service provider (OPSP) identification.

4) *Filler*

In case of an odd number of address signals, the filler code 0000 is inserted after the last address signal.

b) *GVNS User Group*

8	7	6	5	4	3	2	1	Octets
Odd/ Even	Spare			GUG length indicator				2
2nd digit				1st digit				2a
...				...				:
Filler (if necessary)				Nth digit				2n

Figure 57-3/Q.2763 – GVNS user group subfield

1) *Odd/Even indicator (O)*

0 Even number of digits.

1 Odd number of digits.

2) *GUG length indicator*

Number of octets to follow. The maximum number of octets is 8 allowing for a maximum number of digits to 16.

3) *Digit*

Digit string in BCD encoding of flexible length representing the GVNS user group (GUG) identification.

4) *Filler*

In case of an odd number of address signals, the filler code 0000 is inserted after the last address signal.

c) *Terminating network routing number (TNRN)*

8	7	6	5	4	3	2	1	Octets
Odd/ Even	Numbering plan indicator			TNRN length indicator				3
Spare	Nature of address indicator							3a
2nd digit				1st digit				3b
...				...				:
Filler (if necessary)				Nth digit				3n

Figure 57-4/Q.2763 – Terminating network routing number subfield

1) *Odd/Even indicator (O)*

0 Even number of digits.

1 Odd number of digits.

2) *Numbering plan indicator*

See 3.9 d)/Q.763.

3) *(TNRN) length indicator*

Number of octets to follow. The maximum number of octets is 9 allowing for a maximum number of digits to 15.

4) *Nature of address indicator*

0000000	Spare.
0000001	Subscriber number (national use).
0000010	Unknown (national use).
0000011	National (significant) number.
0000100	International number.
0000101	Network specific number.
0000110	} Spare.
to	
1101111	
1110000	} Reserved for national use.
to	
1111110	
1111111	Spare.

5) *Digit*

See 3.9 e)/Q.763.

The most significant digit is sent first. Subsequent digits are sent in successive 4-bit fields.

6) *Filler*

In case of an odd number of digits, the filler code 0000 is inserted after the last digit.

7.62 Forward narrow-band interworking indicator

The format of the forward narrow-band interworking indicator parameter field is shown in Figure 58.

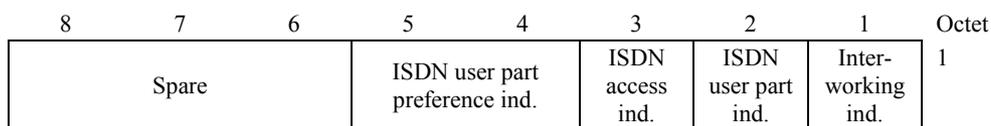


Figure 58/Q.2763 – Forward narrow-band interworking indicator parameter field

The following codes are used in the forward narrow-band interworking indicator parameter field:

- a) *ISDN user part preference indicator*
 - 00 ISDN user part preferred all the way.
 - 01 ISDN user part not required all the way.
 - 10 ISDN user part required all the way.
 - 11 Spare.
- b) *ISDN access indicator*
 - 0 Originating access non-ISDN.
 - 1 Originating access ISDN.
- c) *ISDN user part indicator*
 - 0 ISDN user part not used all the way.
 - 1 ISDN user part used all the way.

- d) *Interworking indicator*
- 0 No interworking encountered (No. 7 signalling all the way).
 - 1 Interworking encountered.

7.63 Hop counter

The format of the hop counter parameter field is shown in Figure 59.

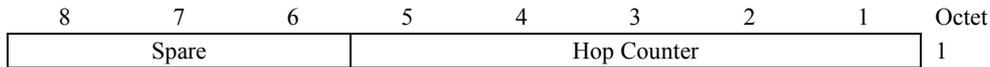


Figure 59/Q.2763 – Hop counter parameter field

The following codes are used in the hop counter parameter field:

- bits 1-5 Hop counter.
- bits 6-8 Spare.

The hop counter contains the binary value of the number of contiguous SS7 inter-exchange channels that are allowed to complete the call.

7.64 In-band information indicator

The format of the in-band information indicator parameter field is shown in Figure 60.

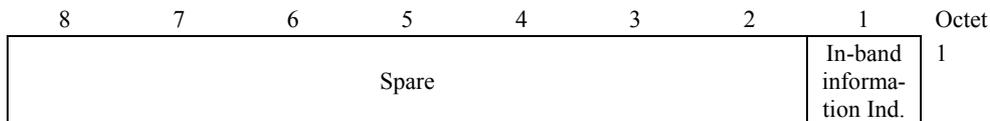


Figure 60/Q.2763 – In-band information indicator parameter field

The following codes are used in the in-band information indicator parameter field:

- a) *In-band information indicator*
- 0 No indication.
 - 1 In-band information or an appropriate pattern is now available.

7.65 Leaf party type

The format of the leaf party type parameter field is shown in Figure 61.

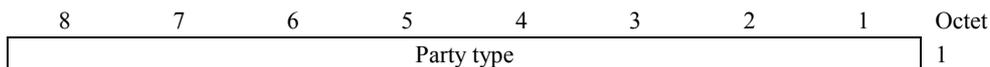


Figure 61/Q.2763 – Leaf party type parameter field

The following codes are used in the subfields of the leaf party type parameter field:

- a) *Party type*
- 00000000 First endpoint of type 2 connection.
 - 00000001 Subsequent endpoint of type 2 connection.

7.66 Link layer core parameters

The format of the link layer core parameters parameter field is shown in Figure 62.

8	7	6	5	4	3	2	1	Octets
ext. 1	Coding standard		Reserved					1
Coding as in Rec. Q.2933 starting with octet 5								2

Figure 62/Q.2763 – Link layer core parameters parameter field

The codes to be used in the subfields of the link layer core parameters parameter field are defined in the link layer core parameters information element in ITU-T Recommendation Q.2933.

7.67 Link layer protocol parameters

The format of the link layer protocol parameters parameter field is shown in Figure 63.

8	7	6	5	4	3	2	1	Octets
ext. 1	Coding standard		Reserved					1
Coding as in Rec. Q.2933 starting with octet 5								2

Figure 63/Q.2763 – Link layer protocol parameters parameter field

The codes to be used in the subfields of the link layer protocol parameters parameter field are defined in the link layer core parameters information element in ITU-T Recommendation Q.2933.

7.68 Location number

The format of the Location number field is shown in Figure 64.

8	7	6	5	4	3	2	1	Octets
Odd/ Even	Nature of address indicator							1
Internal network no. ind.	Numbering plan indicator			Address presentation restricted ind.		Screening indicator		2
2nd address signal				1st address signal				3
:				:				:
								Filler (if necessary)

Figure 64/Q.2763 – Location number parameter field

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

- a) *Odd/Even indicator (octet 1)*
 - 0 Even number of address signals.
 - 1 Odd number of address signals.

- b) *Nature of address indicator (octet 1)*
- | | |
|---------|------------------------------------------------|
| 0000000 | Spare. |
| 0000001 | Reserved for subscriber number (national use). |
| 0000010 | Reserved for unknown (national use). |
| 0000011 | National (significant) number (national use). |
| 0000100 | International number. |
| 0000101 | } Spare. |
| to | |
| 1101111 | } Reserved for national use. |
| 1110000 | |
| to | |
| 1111110 | } Spare. |
| 1111111 | |
- c) *Internal network number indicator (octet 1)*
- | | |
|---|-----------------------------------------|
| 0 | Routing to internal number allowed. |
| 1 | Routing to internal number not allowed. |
- NOTE 1 – Default set to 1.
- d) *Numbering plan indicator (octet 2)*
- | | |
|-----|-------------------------------------------------------------------|
| 000 | Spare. |
| 001 | ISDN (telephony) numbering plan (see ITU-T Recommendation E.164). |
| 010 | Spare. |
| 011 | Reserved for national use. |
| 100 | Reserved for national use. |
| 101 | Private numbering plan. |
| 110 | Reserved for national use. |
| 111 | Spare. |
- NOTE 2 – Default set to 001.
- e) *Address presentation restricted indicator (octet 2)*
- | | |
|----|---------------------------------------|
| 00 | Presentation allowed. |
| 01 | Presentation restricted. |
| 10 | Address not available (national use). |
| 11 | Spare. |
- NOTE 3 – Default set to 01.
- f) *Screening indicator (octet 2)*
- | | |
|----|-------------------------------------|
| 00 | Reserved. |
| 01 | User provided, verified and passed. |
| 10 | Reserved. |
| 11 | Network provided. |
- NOTE 4 – Default set to 11.

g) *Address signals (octets 3 to n)*

- 0000 Digit 0.
- 0001 Digit 1.
- 0010 Digit 2.
- 0011 Digit 3.
- 0100 Digit 4.
- 0101 Digit 5.
- 0110 Digit 6.
- 0111 Digit 7.
- 1000 Digit 8.
- 1001 Digit 9.
- 1010 } Spare.
- to }
- 1111 }

h) *Filler (octet n)*

In case of an odd number of address signals, the filler code 0000 is inserted after the last address signal.

7.69 Loop prevention indicators

The format of the loop prevention indicators parameter field is shown in Figure 65.



Figure 65/Q.2763 – Loop prevention indicators parameter field

The following codes are used in the loop prevention indicators parameter field:

- bits 1 Type.
 - 0 Request.
 - 1 Response.
- If bit 1 equals to 0 (request).
- bits 2-8 Spare.
 - If bit 1 equals to 1 (response).
- bits 2-3 Response indicator.
 - 00 Insufficient information (Note).
 - 01 No loop exist.
 - 10 Simultaneous transfer.
 - 11 Spare.
- bits 4-8 Spare.

NOTE – The value "insufficient information" may be received due to interworking.

7.70 Maximum end-to-end transit delay

The format of the maximum end-to-end transit delay parameter field corresponds to the format for the call history parameter.

The encoding is identical to the encoding of the call history information parameter.

7.71 MCID response indicators

The format of the MCID response indicators parameter is shown in Figure 66.

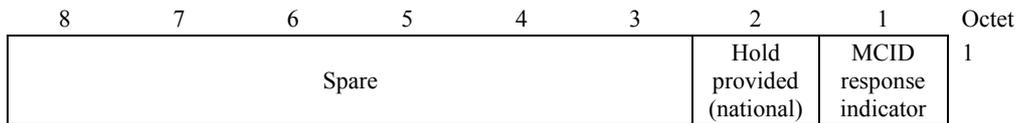


Figure 66/Q.2763 – MCID response indicators parameter field

The following codes are used in the MCID response indicators parameter field:

- bit 1 MCID response indicator.
 - 0 MCID not included
 - 1 MCID included.
- bit 2 Hold provided indicator (national use)
 - 0 Holding not provided.
 - 1 Holding provided.
- bits 3-8 Spare.

7.72 MCID request indicators

The format of the MCID request indicators parameter field is shown in Figure 67.

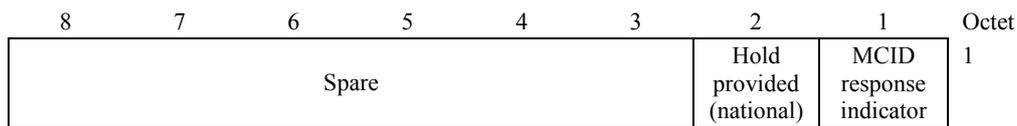


Figure 67/Q.2763 – MCID request indicators parameter field

The following codes are used in the MCID request indicators parameter field:

- bit 1 MCID request indicator.
 - 0 MCID not requested.
 - 1 MCID requested.
- bit 2 Holding indicator (national use)
 - 0 Holding not requested.
 - 1 Holding requested.
- bits 3-8 Spare.

7.73 Minimum ATM cell rate

The format of the minimum ATM cell rate parameter field corresponds to the format of the additional ATM cell rate parameter.

The following codes are used in the subfields of the minimum ATM cell rate parameter field:

a) *Cell rate identifier*

See ITU-T Recommendation Q.2931.1 to Q.2961.2 and Q.2962 for the coding. The codes are given here are just for information.

- 10000010 Forward peak cell rate for cell loss priority = 0
- 10000011 Backward peak cell rate for cell loss priority = 0
- 10000100 Forward peak cell rate for cell loss priority = 0 + 1
- 10000101 Backward peak cell rate for cell loss priority = 0 + 1

- 10010010 Forward ABR minimum cell rate for cell loss priority = 0 + 1
- 10010011 Backward ABR minimum cell rate for cell loss priority = 0 + 1

- 10001000 Forward sustainable cell rate for cell loss priority = 0
- 10001001 Backward sustainable cell rate for cell loss priority = 0
- 10010000 Forward sustainable cell rate for cell loss priority = 0 + 1
- 10010001 Backward sustainable cell rate for cell loss priority = 0 + 1

- 10100000 Forward maximum burst size for cell loss priority = 0
- 10100001 Backward maximum burst size for cell loss priority = 0
- 10110000 Forward maximum burst size for cell loss priority = 0 + 1
- 10110001 Backward maximum burst size for cell loss priority = 0 + 1

- 11000000 Forward resource management peak cell rate
- 11000001 Backward resource management peak cell rate

b) *Cell rate*

The encoding is identical to the encoding of the additional ATM cell rate parameter.

c) *Maximum burst size*

The encoding is identical to the encoding of the additional ATM cell rate parameter.

7.74 MLPP precedence

The format of the Multi-level Precedence and Preemption (MLPP) precedence parameter field is shown in Figure 68.

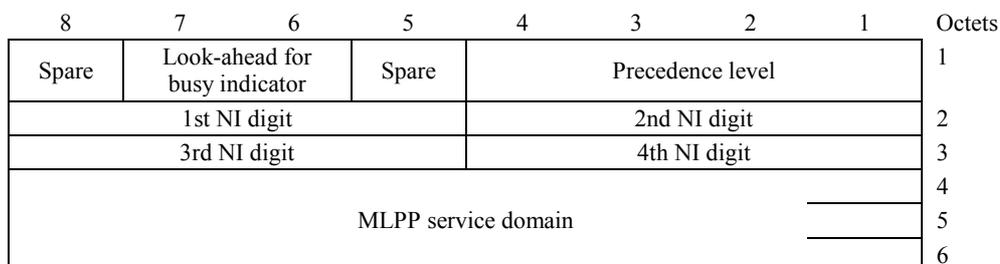


Figure 68/Q.2763 – MLPP precedence parameter field

The following codes are used in the subfields of the MLPP precedence parameter field.

- a) *Look-ahead For Busy (LFB) indicator*
- | | |
|----|-------------------------------|
| 00 | LFB allowed. |
| 01 | Path reserved (national use). |
| 10 | LFB not allowed. |
| 11 | Spare. |

- b) *Precedence level*
- | | |
|------|-----------------|
| 0000 | Flash override. |
| 0001 | Flash. |
| 0010 | Immediate. |
| 0011 | Priority. |
| 0100 | Routine. |
| 0011 | } Spare. |
| to | |
| 1111 | |

- c) *Network identity NI (octets 2 and 3)*

Each digit is coded in binary coded decimal representation from 0 to 9.

The first digit of this field is coded 0. The TCC (Telephony Country Code) follows in the second to fourth NI digits (the most significant TCC digit is in the 2nd NI digit). If the TCC is one or two digits long, the excess digit(s) is(are) inserted with the code for ROA or network identification, if necessary. If octet 3 is not required, it is coded all zeros.

- d) *MLPP service domain (octets 4, 5 and 6)*

A pure binary code allocated to a MLPP service domain administered by a particular ISDN. Bit 8 of octet 4 is the most significant and bit 1 of octet 6 is the least significant respectively.

7.75 MLPP user information

The format of the Multi-level Precedence and Preemption (MLPP) user information parameter field is shown in Figure 69.

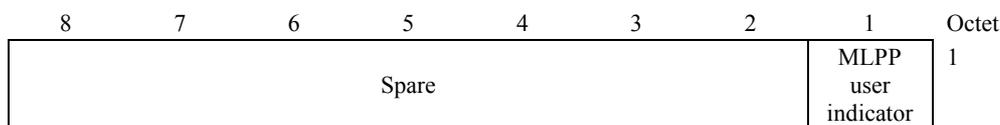


Figure 69/Q.2763 – MLPP user information parameter field

The following codes are used in the subfields of the MLPP user information parameter field.

- a) *MLPP user indicator*
- | | |
|---|----------------|
| 0 | No indication. |
| 1 | MLPP user. |

7.76 Narrow-band bearer capability

The format of the narrow-band bearer capability parameter field is shown in Figure 70.

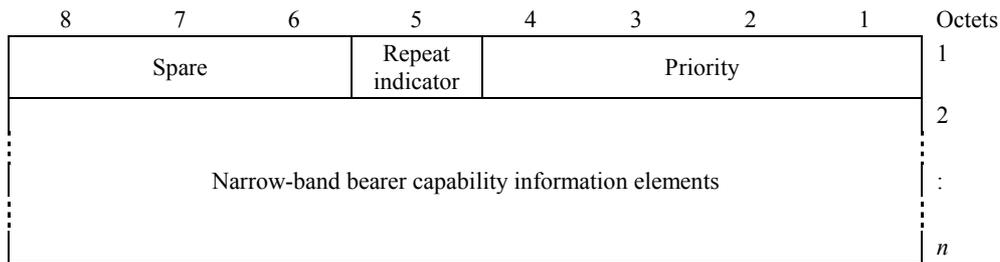


Figure 70/Q.2763 – Narrow-band bearer capability parameter field

The following codes are used in the subfields of the narrow-band bearer capability parameter field.

a) *Repeat indicator (octet 1)*

- 0 Information element not repeated.
- 1 Information element repeated.

b) *Priority (octet 1)*

- 0000 No prioritized order.
- 0001 Prioritized list for selecting one possibility: ascending order.
- 0010 Prioritized list for selecting one possibility: descending order.
- 0011 }
to } Spare.
1111 }

c) *Narrow-band bearer capability information elements (octets 2 to n)*

This field contains all narrow-band bearer capability information elements as received from DSS2 or as obtained in case of interworking with N-ISUP. The format of the narrow-band bearer capability elements is the same as specified in ITU-T Recommendation Q.2931. The order of the information elements is not changed.

7.77 Narrow-band high layer compatibility

The format of the narrow-band high layer compatibility parameter field is shown in Figure 71.

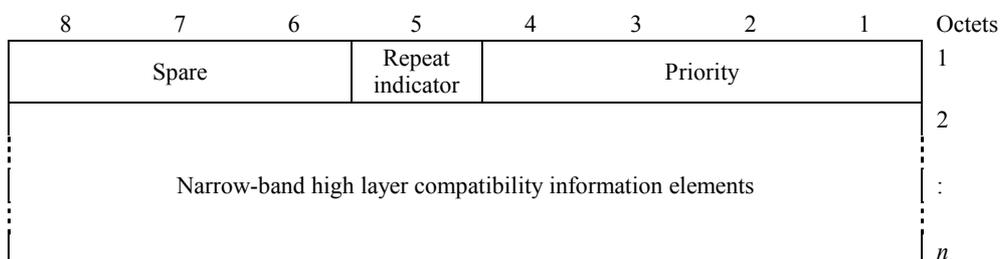


Figure 71/Q.2763 – Narrow-band high layer compatibility parameter field

The following codes are used in the subfields of the narrow-band high layer compatibility parameter field.

- a) *Repeat indicator (octet 1)*
 - 0 Information element not repeated.
 - 1 Information element repeated.
- b) *Priority (octet 1)*
 - 0000 No prioritized order.
 - 0001 Prioritized list for selecting one possibility: ascending order.
 - 0010 Prioritized list for selecting one possibility: descending order.
- c) *Narrow-band high layer compatibility information elements (octets 2 to n)*

This field contains all narrow-band high layer compatibility information elements as received from DSS 2 or as obtained in case of interworking with N-ISUP. The format of the narrow-band high layer compatibility elements is the same as specified in ITU-T Recommendation Q.2931. The order of the information elements is not changed.

7.78 Narrow-band low layer compatibility

The format of the narrow-band low layer compatibility parameter field is shown in Figure 72.

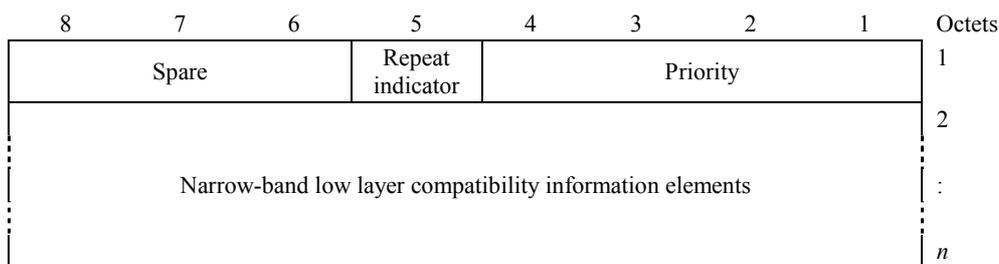


Figure 72/Q.2763 – Narrow-band low layer compatibility parameter field

The following codes are used in the subfields of the narrow-band low layer compatibility parameter field.

- a) *Repeat indicator (octet 1)*
 - 0 Information element not repeated.
 - 1 Information element repeated.
- b) *Priority (octet 1)*
 - 0000 No prioritized order.
 - 0001 Prioritized list for selecting one possibility: ascending order.
 - 0010 Prioritized list for selecting one possibility: descending order.
 - 0011 } Spare.
 - to }
 - 1111 }
- c) *Narrow-band low layer compatibility information elements (octets 2 to n)*

This field contains all narrow-band low layer compatibility information elements as received from DSS2 or as obtained in case of interworking with N-ISUP. The format of the narrow-band low layer compatibility elements is the same as specified in ITU-T Recommendation Q.2931. The order of the information elements is not changed.

7.79 National/international call indicator

The format of the national/international call indicator parameter field is shown in Figure 73.

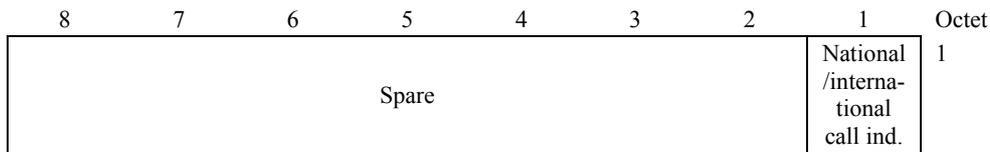


Figure 73/Q.2763 – National/international call indicator parameter field

The following codes are used in the national/international call indicator parameter field:

- a) *National/international call indicator*
 - 0 Call to be treated as national call.
 - 1 Call to be treated as international call.

7.80 Network call correlation identifier

The format of the network call correlation identifier parameter field is shown in Figure 74.

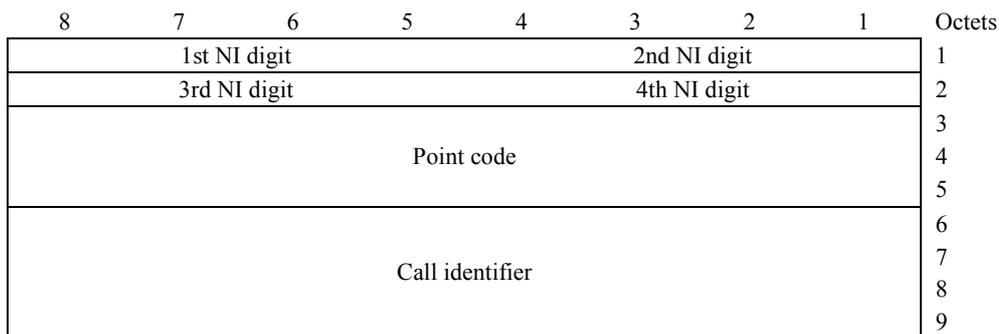


Figure 74/Q.2763 – Network call correlation identifier parameter field

The following codes are used in the subfields of the network call correlation identifier parameter field:

- a) *Network identity (NI) (octets 1 and 2)*
Coding as specified for the MLPP precedence parameter subfield in this ITU-T Recommendation.
- b) *Point code*
Point code of the exchange generating the Network Call Correlation Identifier. Bit 1 of octet 3 is the least significant bit and bit 8 of octet 5 is the most significant bit. Unused bits shall be coded as 0's.
NOTE – This format supports a 3-octet field for the point code of the generating node to allow for national point code arrangements. International point code would use octet 3 and bits 1 to 6 of octet 4.
- c) *Call Identifier*
A bit string representing the identification allocated to the call.

7.81 Network look ahead indicator

The format of the network look ahead indicator parameter field is shown in Figure 75.

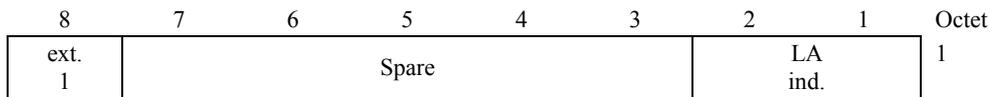


Figure 75/Q.2763 – Network look ahead indicator parameter field

The following codes are used in the network look ahead indicator parameter field:

- a) *Extension indicator*
 - 0 Octet continues through the next octet.
 - 1 Last octet.
- b) *Look Ahead indicator*
 - 00 No indication.
 - 01 Network Look Ahead invoked – no indication.
 - 10 Reserved.
 - 11 Network Look Ahead invoked – an answer received from the terminating exchange or private network.

7.82 Network management controls

The format of the network management controls parameter field is shown in Figure 76.

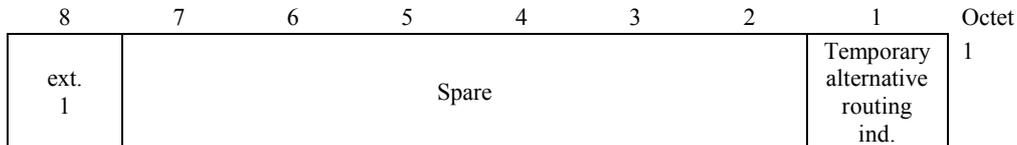


Figure 76/Q.2763 – Network management controls parameter field

The following codes are used in the network management controls parameter field:

- bit 1 Temporary Alternative Routing (TAR) indicator.
 - 0 No indication.
 - 1 TAR controlled call.
- bits 3-7 Spare.
- bit 8 Extension indicator.
 - 0 Information continues through the next octet.
 - 1 Last octet.

7.83 Notification

The format of the notification parameter field is shown in Figure 77.

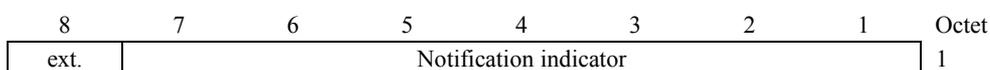


Figure 77/Q.2763 – Notification parameter field

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

- a) *Extension indicator (ext.)*
 - 0 Information continues in the next octet (e.g. octet 1 to 1a).
 - 1 Last octet.
- b) *Notification indicator*
 - 0000000 User suspended.
 - 0000001 User resumed.
 - 0000010 Bearer service change } (Used in DSS1)
 - 0000011 Discriminator for extension to ASN.1 encoded component (Used in DSS1)
 - 0000100 Call completion delay.
 - 1000010 Conference established.
 - 1000011 Conference disconnected.
 - 1000100 Other party added.
 - 1000101 Isolated.
 - 1000110 Reattached.
 - 1000111 Other party isolated.
 - 1001000 Other party reattached.
 - 1001001 Other party split.
 - 1001010 Other party disconnected.
 - 1001011 Conference floating.
 - 1100000 Call is a waiting call.
 - 1101000 Diversion activated (used in DSS1).
 - 1101001 Call transfer, alerting.
 - 1101010 Call transfer, active.
 - 1111001 Remote hold.
 - 1111010 Remote retrieval.
 - 1111011 Call is diverting.

All other values are currently reserved for further extensions.

7.84 OAM traffic descriptor

The format of the OAM traffic descriptor parameter field is shown in Figure 78.

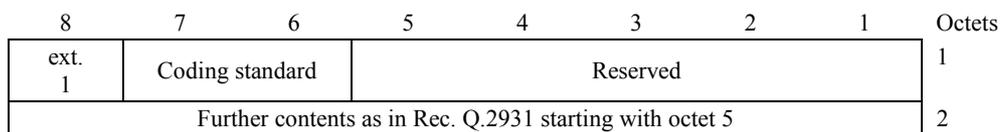


Figure 78/Q.2763 – OAM traffic descriptor parameter field

The codes to be used in the subfields of the OAM traffic descriptor parameter field are defined in the OAM traffic descriptor information element in ITU-T Recommendation Q.2931.

7.85 Original called number

The format of the original called number parameter field corresponds to the format shown in Figure 79.

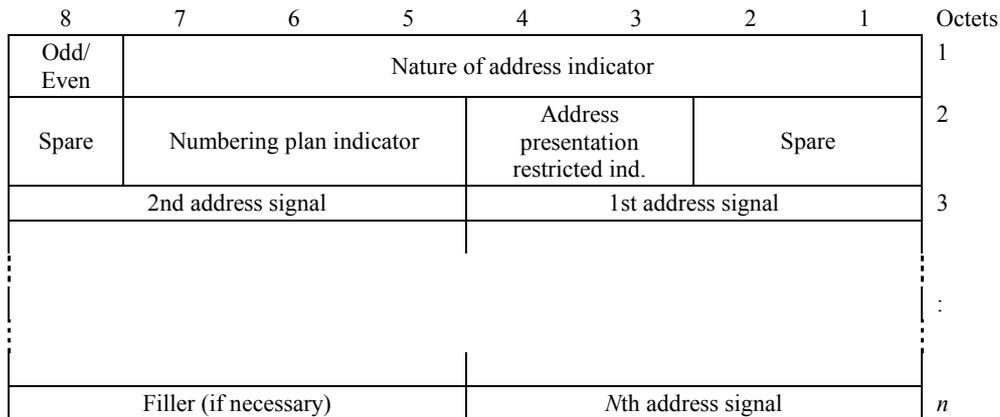


Figure 79/Q.2763 – Original called number parameter field

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

- a) *Odd/Even indicator (octet 1)*
0 Even number of address signals.
1 Odd number of address signals.
- b) *Nature of address indicator (octet 1)*
See Called party number parameter for coding.
- c) *Numbering plan indicator (octet 2)*
See Called party number parameter for coding.
- d) *Address presentation restricted indicator (octet 2)*
00 Presentation allowed.
01 Presentation restricted.
10 Spare.
11 Spare.
- e) *Address signal (octets 3 to n)*
See Calling party number parameter for coding.
- f) *Filler (octet n)*
See 7.33 f). In case of an odd number of address signals, the filler code 0000 is inserted after the last address signal.

7.86 Origination connection link identifier

The format of the origination connection link identifier parameter field corresponds to the format shown for the destination connection link identifier parameter field.

7.87 Origination ISC point code

The format of the origination ISC point code parameter field is shown in Figure 80.

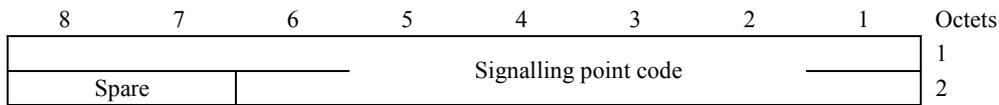


Figure 80/Q.2763 – Origination ISC point code parameter field

The following codes are used in the subfields of the origination ISC point code parameter field:

a) *Signalling point code (octets 1 and 2)*

The signalling point code is a pure binary representation of the code allocated to a node in the signalling network. Bit 6 of octet 2 is the most significant and bit 1 of octet 1 is the least significant respectively.

7.88 Origination signalling identifier

The format of the origination signalling identifier parameter field corresponds to the format shown for the destination signalling identifier parameter.

The encoding is identical to the encoding of the destination signalling identifier parameter field.

7.89 Priority

The format of the priority parameter field is shown in Figure 81.

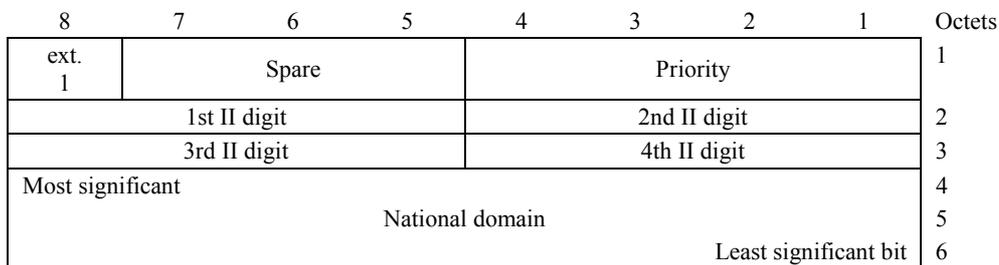


Figure 81/Q.2763 – Priority parameter field

Priority (octet 1)

Four binary coded bits indicating priority coded as follows:

- 0000 Level 1 (highest).
- 0001 Level 2.
- 0010 Level 3.
- 0011 Level 4.
- 0100 Level 5 (lowest).

Other values are reserved.

Domain (octets 2-6)

The domain consists of four International identification digits, followed by a pure binary coded national domain.

International Identification (II) (octets 2-3)

Each II digit is coded in a binary coded decimal representation from 0 to 9. The first digit is coded 0. The Telephony Country Code (TCC) follows in the 2nd to the 4th II digits (the most significant TCC digit is in the 2nd II digit). If octet 3 is not required, it is coded all zeros.

National domain (octets 4-6)

National domain contains a code expressing in pure binary the number allocated to a national-specific domain to uniquely identify a customer domain across multiple ISDN networks. Bit 8 of octet 4 is the most significant bit and bit 1 of octet 6 is the least significant bit.

7.90 Progress indicator

The format of the progress indicator parameter field is shown in Figure 82.

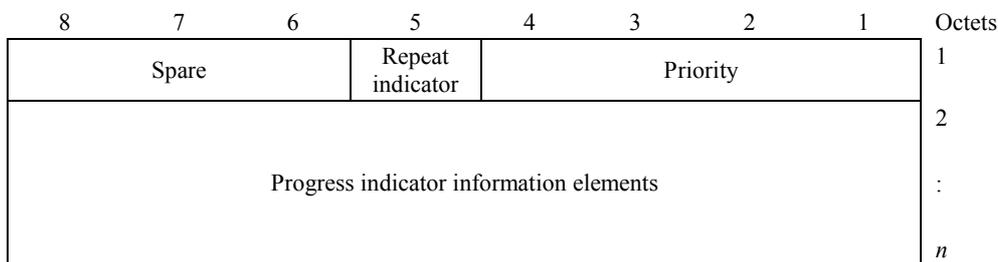


Figure 82/Q.2763 – Progress indicator parameter field

The following codes are used in the subfields of the progress indicator parameter field:

a) *Repeat indicator (octet 1)*

- 0 Information element not repeated.
- 1 Information element repeated.

b) *Priority (octet 1)*

- 0000 No prioritized order.
- 0001 Prioritized list for selecting one possibility: ascending order.
- 0010 Prioritized list for selecting one possibility: descending order.
- 0011 } Reserve.
- to }
- 1111 }

c) *Progress indicator information elements (octets 2 to n)*

This field contains all progress indicator information elements as received from DSS2 or as obtained in case of interworking with N-ISUP. The format of the progress indicator elements is the same as specified in ITU-T Recommendation Q.2931. The order of the information elements is not changed.

7.91 Propagation delay counter

The format of the propagation delay counter parameter field corresponds to the format shown for the call history information parameter.

The encoding is identical to the encoding of the call history information parameter field.

7.92 Quality of service (QoS)

The format of the QoS parameter field is shown in Figure 83.

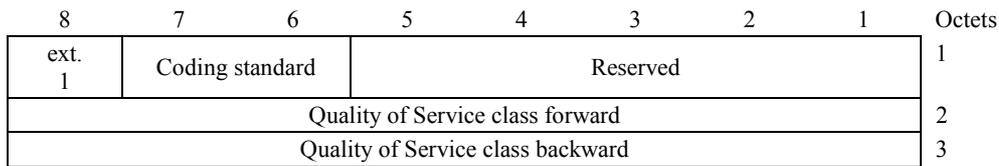


Figure 83/Q.2763 – QoS parameter field

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

- a) *Coding standard*
- 00 ITU standard codes.
 - 01 Reserved for ISO/IEC standard codes.
 - 10 Reserved for national use.
 - 11 Reserved for network specific use.

The following codepoints are assigned for Coding standard = 00:

- i) *Quality of Service class forward*
The coding of this subfield is defined in the QoS parameter information element in ITU-T Recommendation Q.2965.1.
- ii) *Quality of Service class backward*
The coding of this subfield is defined in the QoS parameter information element in ITU-T Recommendation Q.2965.1.

7.93 Redirecting number

The format of the redirecting number parameter field corresponds to the format shown for the original called number.

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

- a) *Odd/Even indicator (octet 1)*
- 0 Even number of address signals.
 - 1 Odd number of address signals.
- b) *Nature of address indicator (octet 1)*
See Called party number parameter for coding.
- c) *Numbering plan indicator (octet 2)*
See Called party number parameter for coding.
- d) *Address presentation restricted indicator (octet 2)*
See Original called number parameter for coding.
- e) *Address signal (octets 3 to n)*
See Calling party number parameter for coding.
- f) *Filler (octet n)*
In case of an odd number of address signals, the filler code 0000 is inserted after the last address signal.

7.94 Redirection information

The format of the redirection information parameter field is shown in Figure 84.

8	7	6	5	4	3	2	1	Octets
Original redirection reason				Spare	Redirecting indicator			1
Redirecting reason				Spare	Redirection counter			2

Figure 84/Q.2763 – Redirection information parameter field

NOTE – Octet 2 is omitted if the redirection counter is coded 001.

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

a) *Original redirection reason (octet 1)*

0000	Unknown/not available.
0001	User busy (national use).
0010	No reply (national use).
0011	Unconditional (national use).
0100	} Spare.
to	
1111	

b) *Redirecting indicator (octet 1)*

000	No redirection (national use).
001	Call re-routed (national use).
010	Call re-routed, all redirection information presentation restricted (national use).
011	Call diversion.
100	Call diversion, all redirection information presentation restricted.
101	Call re-routed, redirection number presentation restricted (national use).
110	Call diversion, redirection number presentation restricted.
111	Spare.

c) *Redirecting reason (octet 2)*

0000	Unknown/not available.
0001	User busy.
0010	No reply.
0011	Unconditional.
0100	Deflection during alerting.
0101	Deflection immediate response.
0110	Mobile subscriber not reachable.
0111	} Spare.
to	
1111	

d) *Redirection counter (octet 2)*

Number of redirections the call has undergone expressed as a binary number between 1 and 5.

7.95 Redirection number

The format of the redirection number parameter field corresponds to the format shown for the called party number parameter.

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

- a) *Odd/Even indicator (octet 1)*
0 Even number of address signals.
1 Odd number of address signals.
- b) *Nature of address indicator (octet 1)*
See Called party number parameter for coding.
- c) *Internal network number indicator (octet 2)*
See Called party number parameter for coding.
- d) *Numbering plan indicator (octet 2)*
See Called party number parameter for coding.
- e) *Address signal (octets 3 to n)*
See calling party number parameter for coding.
- f) *Filler (octet n)*
In case of an odd number of address signals, the filler code 0000 is inserted after the last address signals.

7.96 Redirection number restriction

The format of the redirection number restriction parameter field is shown in Figure 85.



Figure 85/Q.2763 – Redirection number restriction parameter field

The following codes are used in the redirection number restriction parameter field:

- a) *Presentation restricted indicator*
00 Presentation allowed.
01 Presentation restricted.
10 Spare.
11 Spare.

7.97 Remote operations (national use)

The format of the remote operations parameter field is shown in Figure 86.

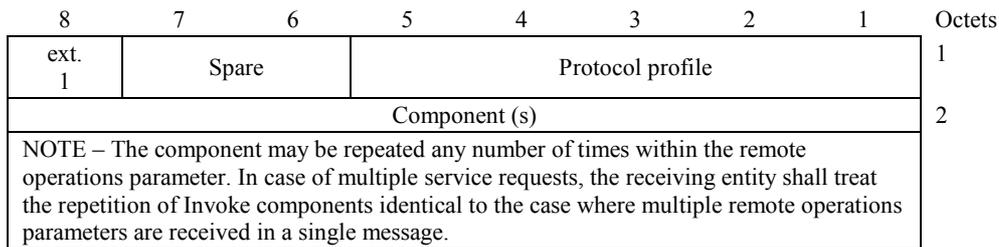


Figure 86/Q.2763 – Remote operations parameter field

The following codes are used in the remote operations parameter field:

a) *Extension indicator (ext.)*

0 Information continues through the next octet.

1 Last octet.

b) *Protocol profile field*

00000 }
to } Spare.
10000 }

10001 Remote operations protocol.

10010 }
to } Spare.
11111 }

c) *Components*

See 3.48/Q.763 for the format and coding of the elements in the components.

7.98 Report type

The format of the report type parameter field is shown in Figure 87.

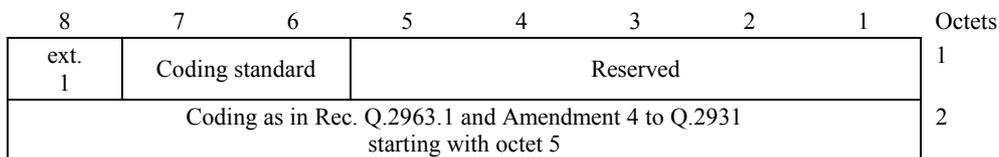


Figure 87/Q.2763 – Report type parameter field

The codes to be used in the subfields of the report type parameter field are defined in the Broadband report type information element in ITU-T Recommendation Q.2963.1 and Amendment 4/Q.2931.

7.99 Report type prime

The format of the report type prime parameter field is shown in Figure 88.

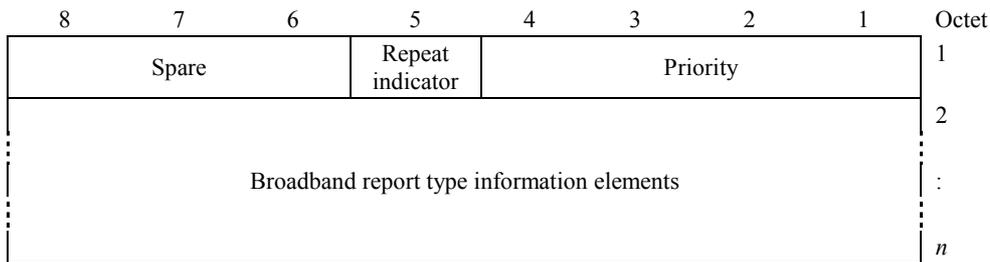


Figure 88/Q.2763 – Report type prime parameter field

The following codes are used in the subfields of the report type prime parameter field:

a) *Repeat indicator (octet 1)*

- 0 Information element not repeated.
- 1 Information element repeated.

b) *Priority (octet 1)*

- 0000 No priority order.
- 0001 Prioritized list for selecting one possibility: ascending order.
- 0010 Prioritized list for selecting one possibility: descending order.
- 0011 } Reserved.
- to }
- 1111 }

c) *Broadband report type information elements (octets 2 to n)*

This field contains the broadband report type information elements as received from DSS2 starting with the second one. The first one should be contained in the report type parameter. The format of the broadband report type information elements is the same as specified in Amendment 4/Q.2931. The order of the information elements is not changed.

7.100 Resource identifier

The format of the resource identifier parameter field is shown in Figure 89.

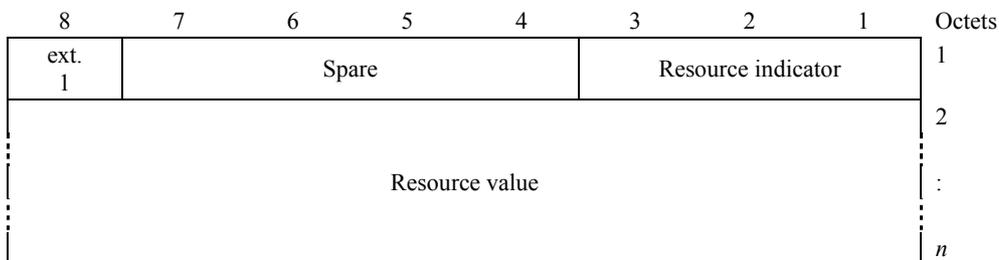


Figure 89/Q.2763 – Resource identifier parameter field

The following codes are used in the subfields of the resource identifier parameter field:

- a) *Extension indicator (ext.) (octet 1)*
 - 0 Octet continues through the next octet (e.g. octet 1 to 1a).
 - 1 Last octet.
- b) *Resource indicator*
 - 000 Local signalling identifier.
 - 001 Remote signalling identifier.
 - 010 Connection element identifier: VPCI/VCI.
 - 011 Connection element identifier: VPCI.
 - 100 VPC pool: VPCI.
 - 101 } Spare.
 - to }
 - 111 }
- c) *Resource value (octets 2 to n)*

A code representing the identifier of the resource to be reset.

NOTE 1 – This value will be equal to a signalling identifier control ID value if the resource indicator is coded "000" or "001".

NOTE 2 – This value will be equal to a VPCI/VCI value if the resource indicator is coded "010".

NOTE 3 – This value will be equal to a VPCI value if the resource indicator is coded "011" or "100".

NOTE 4 – The maximum length of the resource value is 4 octets.

7.101 SCF ID

The format of the SCF id parameter field is shown in Figure 90.

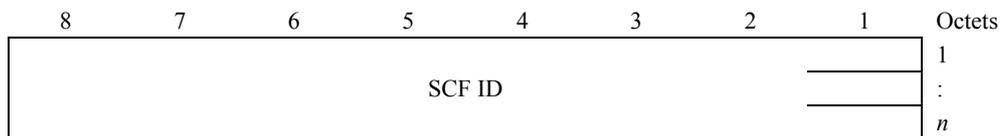


Figure 90/Q.2763 – SCF ID parameter field

The SCF ID is coded as described in ITU-T Recommendation Q.1218.

7.102 Segmentation indicator (national use)

The format of the segmentation indicator parameter field is shown in Figure 91.

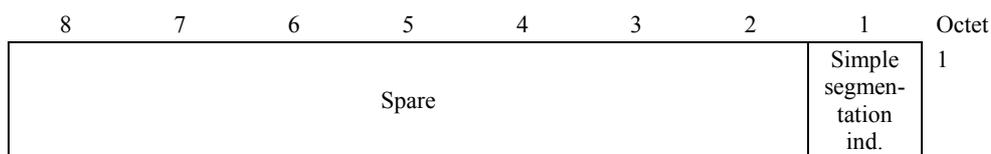


Figure 91/Q.2763 – Segmentation indicator parameter field

The following codes are used in the subfields of the segmentation indicator parameter field:

- a) *Simple segmentation indicator*
- 0 No additional information will be sent.
 - 1 Additional information will be sent in a segmentation message.

7.103 Service activation

The format of the service activation parameter field is shown in Figure 92.

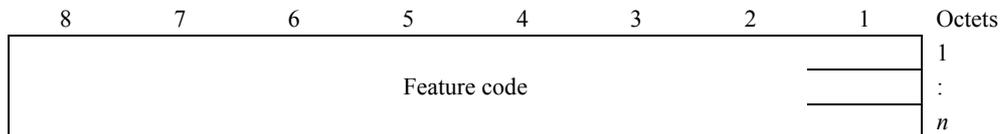


Figure 92/Q.2763 – Service activation parameter field

The following feature codes are used in the service activation parameter field:

- 00000000 Spare.
- 00000001 Reserved for call transfer.
- 00000010 } Reserved for international use.
- to }
- 01111011 }
- 01111100 } Reserved for national use.
- to }
- 11111110 }
- 11111111 Reserved for extension.

7.104 Soft PVC called endpoint

The format of the soft PVC called endpoint parameter field is shown in Figure 93.

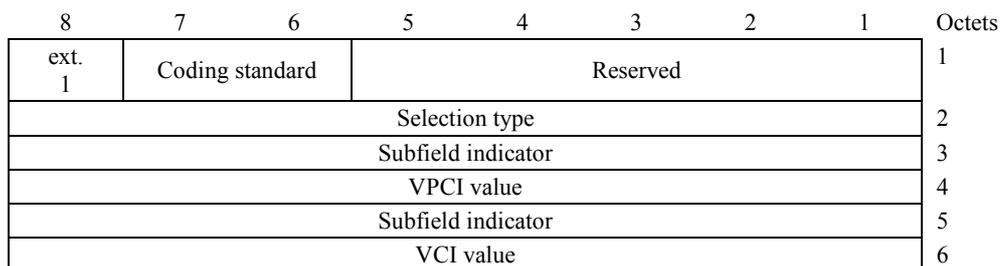


Figure 93/Q.2763 – Soft PVC called endpoint parameter field

Subfields are coded as follows:

- a) *Selection type*
- 00000000 Any value.
 - 00000010 Required value.
 - 00000100 Assigned value.

- All other values reserved.
- b) *Subfield indicator*
 00000001 VPCI value.
 00000010 VCI value.
 All other values reserved.
- c) *VPCI value*
 Two-octet value coded as in the Connection Element Identifier.
- d) *VCI value*
 Two-octet value coded as in the Connection Element Identifier.

7.105 Soft PVC calling endpoint

The format of the soft PVC calling endpoint parameter field is shown in Figure 94.

8	7	6	5	4	3	2	1	Octets
ext. 1	Coding standard		Reserved					1
Subfield indicator								2
VPCI value								3
Subfield indicator								4
VCI value								5

Figure 94/Q.2763 – Soft PVC calling endpoint parameter field

Subfields are coded as follows:

- a) *Subfield indicator*
 00000001 VPCI value.
 00000010 VCI value.
 All other values reserved.
- b) *VPCI value*
 Two-octet value coded as in the Connection Element Identifier.
- c) *VCI value*
 Two-octet value coded as in the Connection Element Identifier.

7.106 Subsequent number

The format of the subsequent number parameter field is shown in Figure 95.

8	7	6	5	4	3	2	1	Octets
Odd/ Even	Spare							1
2nd address signal				1st address signal				2
:								:
Filler (if necessary)				Nth address signal				n

Figure 95/Q.2763 – Subsequent number parameter field

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

- a) *Odd/Even indicator (octet 1)*
 0 Even number of address signals.
 1 Odd number of address signals.
- b) *Address signal (octets 2 to n)*
 See Called party number parameter for coding.
- c) *Filler (octet n)*
 In case of an odd number of address signals, the filler code 0000 is inserted after the last address signal.

7.107 Suspend/resume indicators

The format of the suspend/resume indicators parameter field is shown in Figure 96.



Figure 96/Q.2763 – Suspend/resume indicators parameter field

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

- a) *Suspend/resume indicator*
 0 ISDN subscriber initiated.
 1 Network initiated.

7.108 Transit network selection (national use)

The format of the transit network selection parameter field is shown in Figure 97.

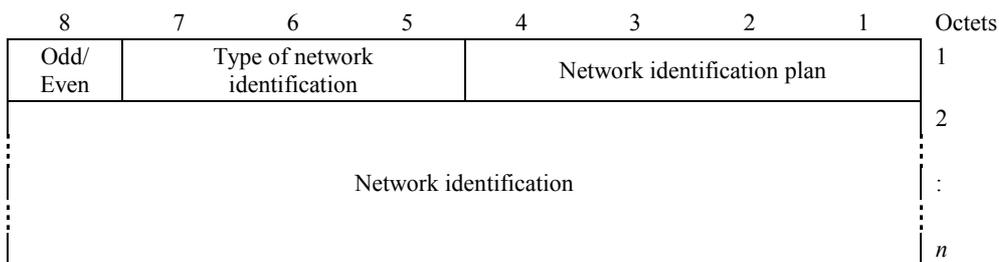


Figure 97/Q.2763 – Transit network selection parameter field

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

- a) *Odd/Even indicator (octet 1)*
 0 Even number of digits.
 1 Odd number of digits.

- b) *Type of network identification (octet 1)*
 000 ITU-T (CCITT) – Standardized identification.
 010 National network identification.
 Other Spare.
- c) *Network identification plan (octet 1)*
 i) For ITU-T (CCITT) – Standardized identification:
 0000 Unknown.
 0011 Public Data Network Identification Code (DNIC), ITU-T Recommendation X.121.
 0110 Public land Mobile Network Identification Code (MNIC), ITU-T Recommendation E.212.
 Other Spare.
- ii) For national network identification:
 This information is coded according to national specifications.
- d) *Network identification (octets 2 to n)*
 This information is organized according to the network identification plan and the coding principle given in 7.33 e).

7.109 UID action indicators

The format of the UID action indicators parameter field is shown in Figure 98.

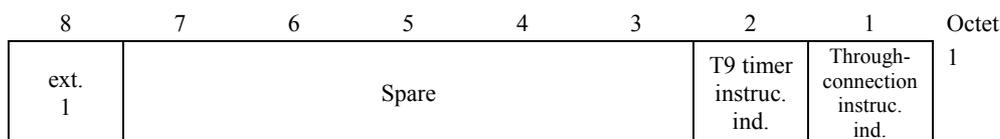


Figure 98/Q.2763 – UID action indicators parameter field

The following codes are used in the UID action indicators parameter field:

- bit 1 Through-connection instruction indicator.
 - 0 No indication.
 - 1 Through connect in both directions.
- bit 2 T9 timer instruction indicator.
 - 0 No indication.
 - 1 Top or do not start T9 timer.
- bits 3-7 Spare.
- bit 8 Extension indicator.
 - 0 Information continues through the next octet.
 - 1 Last octet.

7.110 UID capability indicators

The format of the UID capability indicators parameter field is shown in Figure 99.

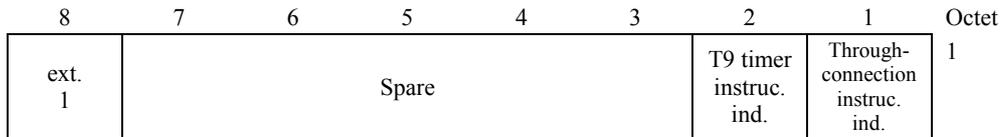


Figure 99/Q.2763 – UID capability indicators parameter field

The following codes are used in the UID capability indicators parameter field:

- bit 1 Through-connection indicator.
 - 0 No indication.
 - 1 Through-connection modification possible.
- Bit 2 T9 timer indication.
 - 0 No indication.
 - 1 Stopping of T9 timer possible.
- Bits3-7 Spare.
- Bit 8 Extension indicator.
 - 0 Information continues through the next octet.
 - 1 Last octet.

7.111 User-to-user indicators

The format of the user-to-user indicators parameter field is shown in Figure 100.

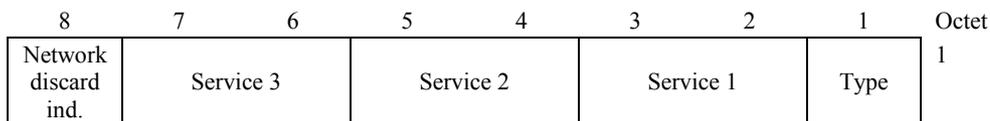


Figure 100/Q.2763 – User-to-user indicators parameter field

The following codes are used in the user-to-user indicators parameter field:

- 1) If type (bit 1) equals 0 (request):
 - a) *Network discard indicator*
Not used for request, set to "0".
 - b) *Service 3*
 - 00 No information.
 - 01 Spare.
 - 10 Request, not essential.
 - 11 Request, essential.

- c) *Service 2*
 - 00 No information.
 - 01 Spare.
 - 10 Request, not essential.
 - 11 Request, essential.
 - d) *Service 1*
 - 00 No information.
 - 01 Spare.
 - 10 Request, not essential.
 - 11 Request, essential.
- 2) If type (bit 1) equals 1 (response):
- a) *Network discard indicator*
 - 0 No information.
 - 1 User-to-user information discarded by the network.
 - b) *Service 3*
 - 00 No information.
 - 01 Not provided.
 - 10 Provided.
 - 11 Spare.
 - c) *Service 2*
 - 00 No information.
 - 01 Not provided.
 - 10 Provided.
 - 11 Spare.
 - d) *Service 1*
 - 00 No information.
 - 01 Not provided.
 - 10 Provided.
 - 11 Spare.

7.112 User-to-user information

The format of the user-to-user information parameter field is shown in Figure 101.

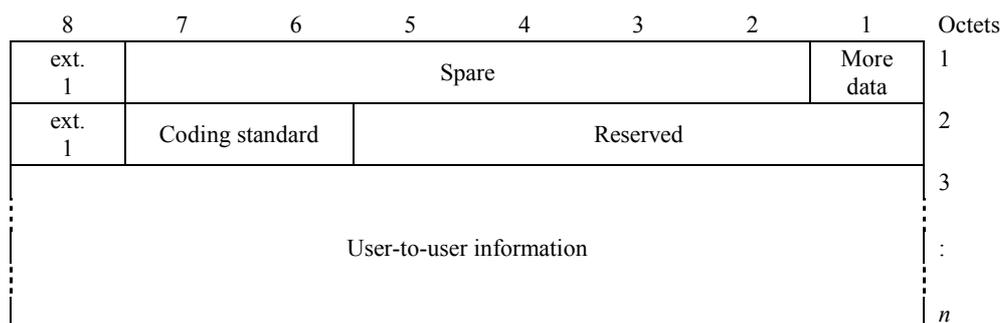


Figure 101/Q.2763 – User-to-user information parameter field

The following codes are used in the subfields of the user-to-user information parameter field:

- a) *Extension indicator (ext.)*
 - 0 Octet continues through the next octet (e.g. octet 1 to 1a).
 - 1 Last octet.
- b) *More data identifier (octet 1)*
 - 0 No more data following.
 - 1 More data following.
- c) *Coding standard (octet 2)*

The codes to be used in the coding standard subfield are defined in the user-to-user information element in clause 1/Q.2957.
- d) *User-to-user information (octets 3 to n)*

The codes to be used in the user-to-user information subfield are defined in the user-to-user information element in clause 1/Q.2957.

8 B-ISDN User Part messages and codes

In Tables 3 to 36, the format and coding of B-ISDN user part messages is specified. For each message, a list of the relevant parameters is given and for each parameter:

- a reference to where the formatting and coding of the parameter content is specified;
- the length of the parameter. The value in the table includes the length, in octets, of the parameter name, length indicator, parameter compatibility information and parameter content. For variable length parameters the minimum and maximum length is indicated (see Note).

NOTE – The length given for Q.2931 information elements is only informative.

For each message type, the parameters need not be sent in the order specified in the tables.

The routing label field, the message type field, the message length field and the message compatibility field belong to the general message format and are not shown explicitly in Tables 3 to 25.

Table 3/Q.2763 – Message type: Address complete

Parameter	Reference (subclause)	Length (octets)
Access delivery information	7.4	6
Application generated identifier	7.14	11
Application transport (Note 2)	7.15	6-?
Backward narrow-band interworking indicator	7.21	6
Call diversion information	7.25	6
Call diversion may occur	7.26	6
Called party's indicators	7.35	6
Cause indicators	7.39	6
Charge indicator	7.42	5
Conference treatment indicators	7.46	6
Connection identifier	7.51	7
Destination signalling identifier	7.55	9
Echo control information	7.57	5
In-band information indicator	7.64	5
MLPP user information	7.75	5
Narrow-band bearer capability	7.76	11
Narrow-band high layer compatibility	7.77	11-?
Notification (Note 1)	7.83	5
Progress indicator	7.90	11-?
Redirection number	7.95	7-15
Redirection number restriction	7.96	5
Report type	7.98	7
Segmentation indicator (national use)	7.102	5
Service activation	7.103	6-?
UID action indicators	7.109	6
User-to-user indicators	7.111	6
User-to-user information	7.112	8-137
NOTE 1 – This parameter may be repeated.		
NOTE 2 – The message may contain one or more Application Transport Parameters (APP) referring to different Application Context Identifiers.		

Table 4/Q.2763 – Message type: Answer

Parameter	Reference (subclause)	Length (octets)
AAL parameters	7.2	7-26
Access delivery information	7.4	6
Additional ATM cell rate	7.5	9-45
Additional connected number	7.7	7-15
AESA for additional connected party	7.9	27-?
AESA for connected party	7.12	27-?
Application generated identifier	7.14	11
Application transport (Note 2)	7.15	6-?
ATC setup parameters	7.16	6-37
ATM cell rate	7.17	9-21
Backward GVNS	7.20	6
Backward narrow-band interworking indicator	7.21	6
Broadband low layer information	7.24	11-?
Call history information	7.28	7
Called party's indicators	7.35	6
CDVT	7.41	6-23
Charge indicator	7.42	6
Connected number	7.48	7-16
Connected sub-address	7.49	8-28
Connection identifier	7.51	7
Destination signalling identifier	7.55	9
Display information	7.56	6-?
Echo control information	7.57	65
Extended Quality of Service	7.60	7-26
In-band information indicator	7.64	6
Link layer core	7.66	6-30
Link layer protocol	7.67	6-12
Narrow-band bearer capability	7.76	12-?
Narrow-band high layer compatibility	7.77	12-?
Narrow-band low layer compatibility	7.78	12-?
Notification (Note 1)	7.83	6
OAM traffic descriptor	7.84	7
Progress indicator	7.90	12-?
Redirection number	7.95	8-15
Redirection number restriction	7.96	6
Remote operations (national use)	7.97	12-?
Report type	7.98	7
Report type prime	7.99	11-?
Segmentation indicator (national use)	7.102	6
Service activation	7.103	6
Soft PVC called endpoint	7.104	7-?
User-to-user indicators	7.111	5
User-to-user information	7.112	8-137
NOTE 1 – This parameter may be repeated.		
NOTE 2 – The message may contain one or more Application Transport Parameters (APP) referring to different Application Context Identifiers.		

Table 5/Q.2763 – Message type: Application Transport

Parameter	Reference (subclause)	Length (octets)
Application transport (Note)	7.15	8-?
NOTE – The message may contain one or more Application Transport Parameters (APP) referring to different Application Context Identifiers.		

Table 6/Q.2763 – Message type: Blocking/Reset/Unblocking

Parameter	Reference (subclause)	Length (octets)
Origination signalling identifier	7.88	9
Resource identifier	7.100	8-11

Table 7/Q.2763 – Message type: Blocking acknowledgement/Reset acknowledgement/Unblocking acknowledgement

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	8

Table 8/Q.2763 – Message type: Call progress

Parameter	Reference (subclause)	Length (octets)
Access delivery information	7.4	5
Additional connected number	7.7	7-15
Application generated identifier	7.14	11
Application transport (Note 2)	7.15	6-?
Backward GVNS	7.20	6
Backward narrow-band interworking indicator	7.21	5
Call diversion information	7.25	5
Call diversion may occur	7.26	5
Call history information	7.28	7
Call transfer number	7.30	8-?
Called party's indicators	7.35	5
Cause indicators	7.39	7-?
Charge indicator	7.42	6
Conference treatment indicators	7.46	6
Connected number	7.48	8-?
Destination signalling identifier	7.55	8
Echo control information	7.57	6
In-band information indicator	7.64	5
Narrow-band bearer capability	7.76	12-?
Narrow-band high layer compatibility	7.77	12-?

Table 8/Q.2763 – Message type: Call progress (concluded)

Parameter	Reference (subclause)	Length (octets)
Notification (Note 1)	7.83	6
Progress indicator	7.90	12-?
Redirection number	7.95	8-16
Redirection number restriction	7.96	5
Remote operations (national use)	7.97	12-?
Report type	7.98	7
Segmentation indicator (national use)	7.102	6
Service activation	7.103	6
UID action indicators	7.109	6
User-to-user indicators	7.111	6
User-to-user information	7.112	8-137
NOTE 1 – This parameter may be repeated.		
NOTE 2 – The message may contain one or more Application Transport Parameters (APP) referring to different Application Context Identifiers.		

Table 9/Q.2763 – Message Type: Call transfer

Parameter	Reference (subclause)	Length (octets)
Call transfer number	7.30	8-?
Calling party sub-address	7.37	8-28
Destination signalling identifier	7.55	9
Notification (Note)	7.83	6
NOTE – This parameter may be repeated.		

Table 10/Q.2763 – Message type: Connection Available (Note 1)

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	9
Notification (Note 2)	7.83	6
Report type	7.98	6
NOTE 1 – The former name of the message was Modify Confirm. Existing procedures are not influenced by this editorial change. However, the message may be used in additional procedure.		
NOTE 2 – This parameter may be repeated.		

Table 11/Q.2763 – Message type: Confusion

Parameter	Reference (subclause)	Length (octets)
Cause indicators	7.39	7-?
Destination signalling identifier	7.55	9

Table 12/Q.2763 – Message type: Consistency check request

Parameter	Reference (subclause)	Length (octets)
Origination signalling identifier	7.88	9
Resource identifier	7.100	7-11

Table 13/Q.2763 – Message type: Consistency check request acknowledgement

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	9
Origination signalling identifier	7.88	9

Table 14/Q.2763 – Message type: Consistency check end

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	9

Table 15/Q.2763 – Message type: Consistency check end acknowledgement

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	9
Consistency check result information	7.52	6

Table 16/Q.2763 – Message Type: Facility

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	9-?
Notification	7.83	6
Remote operations (national use)	7.97	12-?

Table 17/Q.2763 – Message type: Forward transfer

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	9

Table 18/Q.2763 – Message Type: Identification request

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	9
MCID request indicators	7.72	6

Table 19/Q.2763 – Message Type: Identification response

Parameter	Reference (subclause)	Length (octets)
Additional calling party number	7.6	8-16
Calling party number	7.36	8-16
Calling party sub-address	7.37	8-28
Charged party identification (national use)	7.43	6-?
Destination signalling identifier	7.55	9
MCID response indicators	7.71	6

Table 20/Q.2763 – Message type: Initial address

Parameter	Reference (subclause)	Length (octets)
AAL parameters	7.2	7-26
AAL prime parameters	7.3	7-23
Additional ATM cell rate	7.5	9-45
Additional calling party number	7.6	7-16
AESA for additional calling party	7.8	27-?
AESA for called party	7.10	27-?
AESA for calling party	7.11	27-?
Alternative ATM cell rate	7.13	9-28
Application generated identifier	7.14	11-?
Application transport (Note 2)	7.15	6-?
ATC setup parameters	7.16	6-37
ATM cell rate	7.17	9-22
Automatic re-routing	7.19	6
Broadband bearer capability	7.22	8-12
Broadband high layer information	7.23	7-?
Broadband low layer information	7.24	11-?
Call diversion treatment indicators	7.27	6
Call offering treatment indicators	7.29	6
Called IN number	7.32	8-15
Called party number	7.33	8-16
Called party sub-address	7.34	8-28
Calling party number	7.36	7-16
Calling party sub-address	7.37	8-28

Table 20/Q.2763 – Message type: Initial address (continued)

Parameter	Reference (subclause)	Length (octets)
Calling party's category	7.38	6
CCSS	7.40	6
CDVT	7.41	6-23
Closed User Group information	7.44	10
Collect call request	7.45	6
Conference treatment indicators	7.46	6
Connected line identity request	7.47	6
Connection element identifier	7.50	7-9
Connection identifier	7.51	7
Correlation ID	7.53	6-?
Echo control information	7.57	6
End-to-end transit delay network generated indicator	7.58	8-12
Exclusive connection element identifier	7.59	7
Extended Quality of Service	7.60	7-26
Forward GVNS	7.61	8
Forward narrow-band interworking indicator	7.62	6
Hop counter	7.63	6
Leaf party type	7.65	6
Link layer core	7.66	6-30
Link layer protocol	7.67	6-12
Location number	7.68	8-16
Maximum end-to-end transit delay	7.70	7
Minimum ATM cell rate	7.73	9-65
MLPP precedence	7.74	11
Narrow-band bearer capability	7.76	12-?
Narrow-band high layer compatibility	7.77	12-?
Narrow-band low layer compatibility	7.78	12-?
National/international call indicator	7.79	6
Network call correlation identifier	7.80	14
Network management controls	7.82	6
Notification (Note 1)	7.83	5-6
OAM traffic descriptor	7.84	6-7
Original called number	7.85	6-15
Origination connected link identifier	7.86	9
Origination ISC point code	7.87	7
Origination signalling identifier	7.88	9
Priority	7.89	11
Progress indicator	7.90	12-?
Propagation delay counter	7.91	7
Quality of Service	7.92	8

Table 20/Q.2763 – Message type: Initial address (concluded)

Parameter	Reference (subclause)	Length (octets)
Redirecting number	7.93	7-16
Redirection information	7.94	6-8
Remote operations	7.97	12-?
Report type	7.98	7
Report type prime	7.99	11-?
SCF ID	7.101	6-?
Segmentation indicator (national use)	7.102	6
Service activation	7.103	6
Soft PVC called endpoint	7.104	7-?
Soft PVC calling endpoint	7.105	6-?
Transit network selection (national use)	7.108	7-?
UID capabilities indicators	7.110	6
User-to-user indicators	7.111	6
User-to-user information	7.112	8-137

NOTE 1 – This parameter may be repeated.

NOTE 2 – The message may contain one or more Application Transport Parameters (APP) referring to different Application Context Identifiers.

Table 21/Q.2763 – Message type: IAM acknowledgement

Parameter	Reference (subclause)	Length (octets)
Connection element identifier	7.50	7-9
Destination signalling identifier	7.55	9
Origination signalling identifier	7.88	9

Table 22/Q.2763 – Message type: IAM reject

Parameter	Reference (subclause)	Length (octets)
Automatic congestion level	7.18	6
Cause indicators	7.39	7-?
Destination signalling identifier	7.55	9

Table 23/Q.2763 – Message Type: Loop prevention

Parameter	Reference (subclause)	Length (octets)
Call transfer reference	7.31	6
Destination signalling identifier	7.55	9
Loop prevention indicators	7.69	6

Table 24/Q.2763 – Message type: Modify acknowledgement

Parameter	Reference (subclause)	Length (octets)
Additional ATM cell rate	7.5	9-45
ATM cell rate	7.17	9-21
Destination signalling identifier	7.55	9
Notification (Note)	7.83	6
Report type	7.98	7
NOTE – This parameter may be repeated.		

Table 25/Q.2763 – Message type: Modify reject

Parameter	Reference (subclause)	Length (octets)
Cause indicators	7.39	7
Destination signalling identifier	7.55	9
Notification (Note)	7.83	6
NOTE – This parameter may be repeated.		

Table 26/Q.2763 – Message type: Modify request

Parameter	Reference (subclause)	Length (octets)
Additional ATM cell rate	7.5	9-45
Alternative ATM cell rate	7.13	9-45
ATM cell rate	7.17	9-21
Destination signalling identifier	7.55	9
Minimum ATM cell rate	7.73	9-65
Notification (Note)	7.83	6
NOTE – This parameter may be repeated.		

Table 27/Q.2763 – Message type: Network resource management

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	9
Echo control information	7.57	6

Table 28/Q.2763 – Message type: Release

Parameter	Reference (subclause)	Length (octets)
Access delivery information	7.4	6
Application generated identifier	7.14	11

Table 28/Q.2763 – Message type: Release (concluded)

Parameter	Reference (subclause)	Length (octets)
Automatic congestion level	7.18	6
Automatic re-routing (crankback)	7.19	6
Cause indicators	7.39	7-?
Destination signalling identifier	7.55	9
Display information	7.56	6-?
Notification (Note)	7.83	6
Progress indicator	7.90	12-?
Redirection information	7.94	6-8
Redirection number (national use)	7.95	8-16
Redirection number restriction	7.96	6
Remote operations (national use)	7.97	8-?
Segmentation indicator (national use)	7.102	6
User-to-user indicators	7.111	6
User-to-user information	7.112	8-137
NOTE – This parameter may be repeated.		

Table 29/Q.2763 – Message type: Release complete

Parameter	Reference (subclause)	Length (octets)
Cause indicators	7.39	7-?
Destination signalling identifier	7.55	9

Table 30/Q.2763 – Message type: Segmentation (national use)

Parameter	Reference (subclause)	Length (octets)
Additional calling party number	7.6	7-16
Additional connected number	7.7	7-16
Broadband high layer information	7.23	7-?
Broadband low layer information	7.24	11-?
Called party sub-address	7.34	8-28
Calling party sub-address	7.37	7-28
Connected sub-address	7.49	7-28
Destination signalling identifier	7.55	9
Narrow-band high layer compatibility	7.77	12-?
Narrow-band low layer compatibility	7.78	12-?
Notification (Note)	7.83	6
Progress indicator	7.90	12-?
User-to-user information	7.112	8-137
NOTE – This parameter may be repeated.		

Table 31/Q.2763 – Message type: Subsequent address

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	9
Subsequent number	7.106	7-15

Table 32/Q.2763 – Message type: Suspend Resume

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	9
Suspend/Resume indicators	7.107	6

Table 33/Q.2763 – Message type: User part available

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	9

Table 34/Q.2763 – Message type: User part test

Parameter	Reference (subclause)	Length (octets)
Origination signalling identifier	7.88	9

Table 35/Q.2763 – Message type: User-to-user information

Parameter	Reference (subclause)	Length (octets)
Destination signalling identifier	7.55	9
User-to-user indicators	7.111	6
User-to-user information	7.112	8-136

Table 36/Q.2763 – Message type: Pre-release information

Parameter	Reference (subclause)	Length (octets)
Application transport (Note)	7.15	8-?
NOTE – The message may contain one or more Application Transport Parameters (APP) referring to different Application Context Identifiers.		

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