00 - Unknown
01 - Permanent
10 - Transient.

Note 2 - The format of the diagnostic field for causes number 57, 58 and 65 is as shown in Figure B-2/Q.699 and Table B-2a/Q.699 to B-2b/Q.699.

Note 3 - Description in [ ] indicates current difference in description among Recommendations Q.931 and Q.763. Further alignment may be required for those cause values, i.e., #22, #29, #50, #69 and #99.

2.6 Diagnostic(s)

Cause	Diagnostic(s)	Recommendations
1.	Condition (Note 1)	Q.931, Q.763
2.	Transit Network identity	Q.931, Q.763
3.	Condition (Note 1)	Q.931, Q.763
16.	Condition (Note 1)	Q.931, Q.763
21.	Condition (Note 1), User supplied diagnostics	Q.931, Q.763
22.	New Destination [Q.931]/Called Party number (new) [Q.763]	Q.931, Q.763
29.	Facility identification [Q.931]/Rejected parameter [Q.763]	Q.931, Q.730
43.	Discarded information element identifier(s)	Q.931
49.	Condition (Note 2)	Q.931
50.	Facility identification [Q.931]/Rejected parameter [Q.763]	Q.931, Q.730
57.	Attribute identity (Note 2)	Q.931, Q.763
58.	Attribute identity (Note 2)	Q.931, Q.763
65.	Attribute identity (Note 2)	Q.931, Q.763
66.	Channel type	Q.931
69.	Facility identification [Q.931]/Rejected parameter [Q.763]	Q.931, Q.730
82.	Channel identity	Q.931
86.	Clearing cause	Q.931
88.	Incompatible parameter [Q.931]	Q.931, Q.763
96.	Information element identifier	Q.931
97.	Message Type	Q.931, Q.763
98.	Message Type	Q.931
99.	Information element identifier(s) [Q.931]/Parameter name(s) [Q.763]	Q.931 Q.763
100.	Information element identifier(s)	Q.931
101.	Message type	Q.931
102.	Timer number	Q.931
103.	Parameter name(s)	Q.763

Note 1 - The following coding is used:

Bit 8: 1
Bit 7-3: 00000
Bit 2-1: Condition as follows:

1 1 0	0 0 1 1	99.	Information element non-existent or not implemented (Note 2)	Q.931, Q.763	
1 1 0	0 1 0 0	100.	Invalid information element contents	Q.931	
1 1 0	0 1 0 1	101.	Message not compatible with call state	Q.931	
1 1 0	0 1 1 0	102.	Recovery on timer expiry	Q.931	
1 1 0	0 1 0 1	103.	Parameter non-existent or not implemented - passed on	Q.763	
1 1 0	1 1 1 0	110.	Inconsistency in data	Q.730	
1 1 0	1 1 1 1	111.	Protocol error, unspecified	Q.931, Q.763	
1 1 1	1 1 1 1	127.	Interworking, unspecified	Q.931, Q.763	

All other values are reserved.

Note 1 - In Recommendation Q.763, the words "(national use)" are added.

Note 2 - In Recommendation Q.763, the name of this cause value is "parameter non-existent or not implemented-discard". Further alignment of definition for this cause may be required.

1	0	1	0 0 0 1	81. Invalid call reference value	Q.931
1	0	1	0 0 1 0	82. Identified channel does not exist	Q.931
1	0	1	0 0 1 1	83. A suspended call exists, but this call identity does not	Q.931
1	0	1	0 1 0 0	84. Call identity in use	Q.931
1	0	1	0 1 0 1	85. No call suspended	Q.931
1	0	1	0 1 1 0	86. Call having the requested call identity has been cleared	Q.931
1	0	1	0 1 1 1	87. Called user not member of CUG	Q.730
1	0	1	1 0 0 0	88. Incompatible destination	Q.931, Q.763
1	0	1	1 0 1 0	90. Non-existent CUG	Q.730
1	0	1	1 0 1 1	91. Invalid transit network selection (Note 1)	Q.931, Q.763
1	0	1	1 1 1 1	95. Invalid message, unspecified	Q.931, Q.763
1	1	0	0 0 0 0	96. Mandatory information element is missing	Q.931
1	1	0	0 0 0 1	97. Message type non-existent or not implemented	Q.931, Q.763
1	1	0	0 0 1 0	98. Message not compatible with call state or message type non-existent or not implemented	Q.931

TABLE B-1/Q.699 (4 of 4)

Cause Value			Cause	Recommendations
Class	Value	Cause number		

_0 1 1 _0 0 1 0_ 50. _Requested facility not subscribed _Q.931, Q.730 _
_ _ _ _ _ _
_0 1 1 _0 1 0 1_ 53. _Outgoing calls barred within CUG _ Q.730 _
_ _ _ _ _ _
_0 1 1 _0 1 1 1_ 55. _Incoming calls barred within CUG _ Q.730 _
_ _ _ _ _ _
_0 1 1 _1 0 0 1_ 57. _Bearer capability not authorized _Q.931, Q.763 _
_ _ _ _ _ _
_0 1 1 _1 0 1 0_ 58. _Bearer capability not presently _Q.931, Q.763 _
_ _ _ _available _ _
_ _ _ _ _ _
_0 1 1 _1 1 1 0_ 62. _Inconsistency in designated outgoing _ Q.730 _
_ _ _ _access information and subscriber _ _
_ _ _ _class _ _
_ _ _ _ _ _
_0 1 1 _1 1 1 1_ 63. _Service or option not available, _Q.931, Q.763 _
_ _ _ _unspecified _ _
+————+————+————+————————————————————+————————
—+
_1 0 0 _0 0 0 1_ 65. _Bearer capability not implemented _Q.931, Q.763 _
_ _ _ _ _ _
_1 0 0 _0 0 1 0_ 66. _Channel type not implemented _Q.931 _
+————+————+————+————————————————————+————————
—+

TABLE B-1/Q.699 (3 of 4)

+————————+————+————————————————————+————————
—+
_ Cause Value _ _ _ _
+————+————+ Cause _ Cause _Recommendations_
_ Class _ Value _ number_ _ _
+————+————+————+————————————————————+————————
—+
_7 6 5 _4 3 2 1_ _ _ _
_ _ _ _ _ _
_ _ _ _ _ _
_1 0 0 _0 1 0 1_ 69. _Requested facility not implemented _Q.931, Q.730 _
_ _ _ _ _ _
_1 0 0 _0 1 1 0_ 70. _Only restricted digital information _Q.931, Q.763 _
_ _ _ _bearer capability is available _ _
_ _ _ _ _ _
_1 0 0 _1 1 1 1_ 79. _Service or option not implemented, _Q.931, Q.763 _
_ _ _ _unspecified _ _

0	0	1	1	0 1 1	27. Destination out of order	Q.931, Q.763
0	0	1	1	1 0 0	28. Invalid number format	Q.931, Q.763
0	0	1	1	1 0 1	29. Facility rejected	Q.931, Q.730
0	0	1	1	1 1 0	30. Response to STATUS ENQUIRY	Q.931
0	0	1	1	1 1 1	31. Normal, unspecified	Q.931, Q.763

TABLE B-1/Q.699 (2 of 4)

Cause value					
Class	Value	Cause number		Cause	Recommendations
7 6 5	4 3 2 1				
0 1 0	0 0 1 0	34.	No circuit/channel available	Q.931, Q.763	
0 1 0	0 1 1 0	38.	Network out of order	Q.931, Q.763	
0 1 0	1 0 0 1	41.	Temporary failure	Q.931, Q.763	
0 1 0	1 0 1 0	42.	Switching equipment congestion	Q.931, Q.763	
0 1 0	1 0 1 1	43.	Access information discarded	Q.931	
0 1 0	1 1 0 0	44.	Requested circuit/channel not available	Q.931, Q.763	
0 1 0	1 1 1 1	47.	Resources unavailable, unspecified	Q.931, Q.763	
0 1 1	0 0 0 1	49.	Quality of service unavailable	Q.931	

TABLE B-1/Q.699 (1 of 4)

Cause values

Cause value			Cause	Recommendations
Class	Value	number		
7 6 5	4 3 2 1			
0 0 0	0 0 0 1	1.	Unallocated (unassigned) number (Note 1)	Q.931, Q.763
0 0 0	0 0 1 0	2.	No route to specified transit network	Q.931, Q.763
0 0 0	0 0 1 1	3.	No route to destination	Q.931, Q.763
0 0 0	0 1 0 0	4.	Send special information tone	Q.763
0 0 0	0 1 0 1	5.	Misdialled trunk prefix	Q.763
0 0 0	0 1 1 0	6.	Channel unacceptable	Q.931
0 0 0	0 1 1 1	7.	Call awarded and being delivered in an established channel	Q.931
0 0 1	0 0 0 0	16.	Normal call clearing	Q.931, Q.763
0 0 1	0 0 0 1	17.	User busy	Q.931, Q.763
0 0 1	0 0 1 0	18.	No user responding	Q.931, Q.763
0 0 1	0 0 1 1	19.	No answer from user (user alerted)	Q.931, Q.763
0 0 1	0 1 0 1	21.	Call rejected	Q.931, Q.763
0 0 1	0 1 1 0	22.	Number changed	Q.931, Q.763
0 0 1	1 0 1 0	26.	Non-selected user clearing	Q.931

B.2.4Recommendation

B.2.5Cause value

(2) The cause values are listed in Table B-1/Q.699 below.

FIGURE B-1/Q.699

Format of "Cause"

B.2 Codes used in the sub-field of the "Cause"

B.2.1 Extension indicator (ext)

Bit

8

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

1 last octet

B.2.2 Coding standard

B.2.3 Location

This Recommendation forms part of a set of interlocking ISDN service and signalling Recommendations. Other members of this set include the following:

- the operation of basic ISDN telephony teleservice and 64 kbit/s bearer service, which is supported in part via the interworking of the ISDN signalling systems described herein, is defined in detail in Recommendation Q. (basic service stage 2 description);

- the signalling messages and elements of procedure of layer of the Digital Subscriber Signalling System No. 1 and the ISDN User Part of Signalling System No. 7 are defined in Recommendations Q.930/931 (I.450/451) and Recommendations Q.761-Q.764 and Q.766, respectively.

2.Methodology

2.1General

This chapter describes the methodology used to model and define interworking between the ISDN User Part and layer 3 of Digital Subscriber Signalling System No. 1. The methodology is based on the layer service concepts prescribed by the Reference Model of Open System Interconnection (OSI) for CCITT Applications (Recommendation X.200) and uses the terms and conventions defined in Recommendation X.210 (OSI Layer Service Definition Conventions).

ANNEX B

(to Recommendation Q.699)

Usage of "Cause" in Recommendations Q.937, Q.763 and Q.730

B.1Format

Format of Q.931 Cause information element or Q.763/Q.730 Cause indicators parameter contents is shown in Figure B-1/Q.699.

SECTION 3 - INTERWORKING BETWEEN DIGITAL SUBSCRIBER SIGNALLING SYSTEM No. 1 AND SIGNALLING SYSTEM No. 7

Recommendation Q.699

INTERWORKING BETWEEN THE DIGITAL SUBSCRIBER SIGNALLING SYSTEM LAYER 3 PROTOCOL AND THE SIGNALLING SYSTEM No. 7 ISDN USER PART

1.General

1.1Introduction

This Recommendation defines the interworking relationship between the layer 3 functions and protocol of Digital Subscriber Signalling System No. 1 (DSS 1) and the ISDN User Part functions and protocol of Signalling System No. 7.

The interworking between the above two signalling protocols typically may occur in an ISDN local exchange and is specified in the context of a typical call in a pure ISDN or mixed ISDN/non-ISDN environment.

1.2Purpose

The purpose of the Recommendation is:

a) to define how the layer 3 protocol of DSS 1 and Signalling System No. 7 ISDN User Part protocol should be used in combination with call control functions, to support the basic bearer service;

b) to provide a logical bridge between the abstract signalling information flows, which are used in the description of ISDN services, and the corresponding messages and elements of procedure of the ISDN User-Network Interface User Part protocols.

1.3Scope

This Recommendation is aimed at defining the interworking relationship between the call control protocol of the Digital Subscriber Signalling System No. 1 and the ISDN User Part of Signalling System No. 7.

The Recommendation defines in detail the relationship between signalling information conveyed via the Digital Subscriber Signalling System No. 1 protocol and similar signalling information conveyed via the ISDN User Part of Signalling System No. 7. The above relationship is described within the context of supporting the provision of basic bearer service for a call within an ISDN or mixed ISDN/non-ISDN environment.

1.4Relationship to other Recommendations