

THE DRAWINGS CONTAINED IN THIS RECOMMENDATION HAVE BEEN DONE IN AUTOCAD.

## ANNEX A

(to Recommendation X.75)

### Definition of symbols for Annexes B, C and D

#### A.1 *General*

This annex contains the definitions for the symbols to be used in annexes B, C and D. Annex B defines the states of the X/Y interface and the transitions between states in the normal case, while Annex C contains the full definition of actions, if any, to be taken on the receipt of packets by an STE. Annex D describes the actions taken by the STE on time-outs, if any, in the packet layer.

#### A.2 *Symbol definition of the state diagrams*

Figure A-1/X.75 - CCITT 19172

#### A.3 *Order definition of the state diagrams*

For the sake of clarity, the normal procedure at the interface is described in a number of small state diagrams. In order to describe the normal procedure fully, it is necessary to allocate a priority to the different figures and to relate a higher order diagram with a lower one. This has been done by the following means:

- The figures are arranged in order of priority with Figure A-2/X.75 (*restart*) having the highest priority and subsequent figures having lower priority. Priority means that when a packet belonging to a higher order diagram is transferred, that diagram is applicable and the lower order one is not.
- The relation with a state in a lower order diagram is given by including that state inside an ellipse in the higher order diagram.

#### A.4 *Symbol definition of the action tables*

The entries given in Tables C-1/X.75 to C-5/X.75 and D-1/X.75 (see Annexes C and D) indicate the action, if any, to be taken by an STE on receipt of any kind of packet, and the state the STE enters, which is given in parenthesis, following the action taken.

ANNEX B

(to Recommendation X.75)

**State diagrams for the packet layer interface  
between STEs for normal cases**

Figure B-1/X.75 - CCITT 19180

Figure B-2/X.75 - CCITT 19190 et CCITT 19200

Figure B-3/X.75 - CCITT 19180

Figure B-4/X.75 - CCITT 19210

## ANNEX C

(to Recommendation X.75)

### **Actions taken by the STE on receipt of packets in a given state of the packet layer X/Y interface**

*Note* – Actions are specified for STE–Y only. STE–X should follow the same procedure.

TABLE C–1/X.75

#### **Action taken by STE–Y on receipt of packets**

State of the interface as perceived by STE–Y	
Packet received by STE–Y	Any state
Any packet with unassigned logical channel (see Note)	DISCARD
Any packet with less than 2 octets	
Any packet with an incorrect general format identifier	
Any packet with correct general format identifier and assigned logical channel (see Note)	(See Table C–2/X.75)

**DISCARD**     STE–Y discards the received packet and takes no subsequent action.

*Note* – Assigned logical channel includes the case where bits 1 to 4 of octet 1 and bits 1 to 8 of octet 2 are all 0s.

TABLE C-2/X.75

**Action taken by STE-Y on receipt of packets in a given state: restart**

State of the interface as perceived by STE-Y Packet received by STE-Y	Packet layer ready r1	STE-X restart request r2	STE-Y restart request r3
Restart request	NORMAL (r2)	DISCARD (r2)	NORMAL (r1)
Restart confirmation	ERROR (r3) ##17	ERROR (r3) (see Note 1) ##18	NORMAL (r1)
Restart request or confirmation with bit 1 to 4 of octet 1 or bit 1 to 8 of octet 2 = 0	(See Table C-3/X.75)	ERROR (r3) (see Note 1) ##41	DISCARD (r3)
Data, interrupt, flow control, reset, call set-up or clear when both logical channel number and logical channel group number are not all 0s		ERROR (r3) (see Note 1) ##18	
Packet having a packet type identifier which is shorter than 1 octet or is incompatible with the ones defined in § 4 of the text when both logical channel number and logical channel group number are not all 0s		ERROR (r3) (see Note 1) ##38 or ##33	
Data, interrupt, flow control, reset, call set up, clear, packet having a packet type identifier which is shorter than 1 octet or is incompatible with the ones defined in § 4 of the text when both logical channel number and logical channel group number are all 0s	DISCARD (r1)	DISCARD (r2)	DISCARD (r3)

**NORMAL** The action taken by STE-Y follows the normal procedures as defined in § 3 of the text (see Note 2).

**DISCARD** STE-Y discards the received packet and takes no subsequent action.

**ERROR** STE-Y discards the received packet and indicates restarting with “network congestion” cause and decimal diagnostic value ##n.

*Note 1* – If STE-Y issues a *restart request* packet as a result of an error condition in state r2, it should follow the actions described in Annex D.

*Note 2* – In the two following error situations the STE will invoke the ERROR (r3) procedure:

- a *restart request* packet or *restart confirmation* packet received in state r3 exceeds the maximum permitted length, is too short or (where detection of non-octet alignment is made at packet layer) is not octet aligned; diagnostic values ##39, ##38 and ##82 respectively are used.
- b a *restart request* packet received in state r1 exceeds the maximum permitted length, is too short or (where detection of non-octet alignment is made at packet layer) is not octet aligned; diagnostic values ##39, ##38 and ##82 respectively, are used.

TABLE C-3/X.75

**Action taken by STE-Y on receipt of packets specifying an assigned logical channel in a given state:  
call establishment and clearing**

State of the interface as perceived by STE-Y	Packet layer ready r1					
	Ready p1	STE-X call request p2	STE-Y call request p3	Data transfer p4	STE-X clear request p6	STE-Y clear request p7
Call request	NORMAL (p2)	ERROR (p7) ## 21	ERROR (p7) ## 116	ERROR (p7) ## 23	ERROR (p7) (see Note 1) ## 25	ERROR (p7) ## 26
Call connected	ERROR (p7) ## 20	ERROR (p7) ## 21	NORMAL (p4) (see Note 2)	ERROR (p7) ## 23	ERROR (p7) (see Note 1) ## 25	DISCARD (p7)
Clear request	NORMA L (p6)	NORMAL (p6)	NORMAL (p6)	NORMA L (p6)	DISCARD (p6)	NORMAL (p1)
Clear confirmation	DISCAR D (p1)	ERROR (p7) ## 21	ERROR (p7) ## 22	ERROR (p7) ## 23	ERROR (p7) (see Note 1) ## 25	NORMAL (p1)
Data, interrupt, flow control or reset	ERROR (p7) ## 20	ERROR (p7) ## 21	ERROR (p7) ## 22	(See Table C-4/X.75)	ERROR (p7) (see Note 1) ## 25	DISCARD (p7)
Restart request or confirmation with bit 1 to 4 of octet 1 or bit 1 to 8 of octet 2 $\neq$ 0	ERROR (p7) ## 41	ERROR (p7) ## 41	ERROR (p7) ## 41		ERROR (p7) (see Note 1) ## 41	
Packet having a packet type identifier which is shorter than 1 octet or is incompatible with the ones defined in § 4 of the text	ERROR (p7) ## 38 or ## 33	ERROR (p7) ## 38 or ## 33	ERROR (p7) ## 38 or ## 33		ERROR (p7) (see Note 1) ## 38 or ## 33	

**NORMAL** The action taken by STE-Y follows the normal procedures as defined in § 3 of the text. However, if an error condition specified in Annex F occurs, STE-Y discards the received packet and indicates clearing with the cause and diagnostic codes specified in Annex F.

**DISCARD** STE-Y discards the received packet and takes no subsequent action.

**ERROR** STE-Y discards the received packet and indicates clearing with “network congestion” cause and decimal diagnostic value ## n.

*Note 1* – If STE-Y issues a *clear request* packet as a result of an error condition in state p6, it should follow the actions described in Annex D.

*Note 2* – The ERROR (p7) procedure is invoked if STE-Y receives a *call connected* packet in response to a *call request* packet from STE-Y requesting the *fast select* facility with restriction on response.

TABLE C-4/X.75

**Action taken by STE-Y on receipt of packets specifying an assigned logical channel in a given state: reset**

State of the interfaces perceived by STE-Y	Data transfer p4		
	Flow control ready d1	STE-X reset request d2	STE-Y reset request d3
Reset request	NORMAL (d2)	DISCARD (d2)	NORMAL (d1)
Reset confirmation	ERROR (d3) ## 27	ERROR (d3) ## 28	NORMAL (d1)
Data, interrupt or flow control	(See Table C-5/X.75)	ERROR (d3) ## 28	DISCARD (d3)
Restart request or confirmation with bit 1 to 4 of octet 1 or bit 1 to 8 of octet 2 $\neq 0$	ERROR (d3) ## 41	ERROR (d3) (see Note 1) ## 41	DISCARD (d3)
Packet having a packet type identifier which is shorter than 1 octet or is incompatible with the ones defined in § 4 of the text	ERROR (d3) ## 38 or ## 33	ERROR (d3) (see Note 1) ## 38 or ## 33	
Invalid packet type on a permanent virtual circuit	ERROR (d3) ## 35	ERROR (d3) (see Note 1) ## 35	

**NORMAL** The action taken by STE-Y follows the normal procedures as defined in § 3 of the text (see Note 2).

**DISCARD** STE-Y discards the received packet and takes no subsequent action.

**ERROR** STE-Y discards the received packet and indicates resetting with “network congestion” cause and decimal diagnostic value ## n.

*Note 1* – If STE-Y issues a *reset request* packet as a result of an error condition in state d2, it should follow the actions described in Annex D.

*Note 2* – In the following error situations the STE will invoke the ERROR (d3) procedure: the received packet exceeds the maximum permitted length, is too short or (where detection of non-octet alignment is made at packet layer) is not octet aligned; diagnostic values ## 39, ## 38 and ## 82 respectively are used.

TABLE C-5/X.75

**Action taken by receipt of packets specifying an assigned logical channel in a given state: data, interrupt or flow control**

State of the interfaces perceived by STE-Y	Flow control ready d1			
	Not interrupted i1	STE-X interrupt request i2	STE-Y interrupt request i3	STE-X and Y interrupt request i4
Interrupt	NORMAL (i2)	DISCARD (i2) or ERROR (d3) (see Note 1) ## 44	NORMAL (i4)	DISCARD (i4) or ERROR (d3) (see Note 1) ## 44
Interrupt confirmation	DISCARD (i1)	DISCARD (i2)	NORMAL (i1)	NORMAL (i2)
Data with out of sequence P(S) or P(S) outside of window	ERROR (d3) ## 1	ERROR (d3) ## 1	ERROR (d3) ## 1	ERROR (d3) ## 1
Data with M bit violation	ERROR (d3) ## 103	ERROR (d3) ## 103	ERROR (d3) ## 103	ERROR (d3) ## 103
Data with inconsistent Q bit setting	NORMAL (i1) or ERROR (d3) ## 83 (see Note 3)	NORMAL (i2) or ERROR (d3) ## 83 (see Note 3)	NORMAL (i3) or ERROR (d3) ## 83 (see Note 3)	NORMAL (i4) or ERROR (d3) ## 83 (see Note 3)
Data or flow control with invalid P(R)	ERROR (d3) ## 2	ERROR (d3) ## 2	ERROR (d3) ## 2	ERROR (d3) ## 2
A first data packet after entering state d1 with P(S) 0	ERROR (d3) ## 1	ERROR (d3) ## 1	ERROR (d3) ## 1	ERROR (d3) ## 1
When modulo 128 numbering is used, a flow control or data packet with octet 4 shorter than 1 octet	ERROR (d3) ## 38	ERROR (d3) ## 38	ERROR (d3) ## 38	ERROR (d3) ## 38
Valid data or flow control	NORMAL (i1)	NORMAL (i2)	NORMAL (i3)	NORMAL (i4)

**NORMAL** The action taken by STE-Y follows the normal procedures as defined in § 3 of the text (see Note 2).

**DISCARD** STE-Y discards the received packet and takes no subsequent action.

**ERROR** STE-Y discards the received packet and indicates reset with “network congestion” cause and decimal diagnostic value ## n.

*Note 1* – According to § 3.3.5 an STE receiving a further *interrupt* packet in the time between receiving one *interrupt* packet and transferring the interrupt confirmation may either discard this *interrupt* packet or reset the virtual call or the permanent virtual circuit.

*Note 2* – In the following error situations the STE will invoke the ERROR (d3) procedure: the received packet exceeds the maximum permitted length, is too short or (where detection of non-octet alignment is made at packet layer) is not octet aligned; diagnostic values ## 39, ## 38 and ## 82 respectively are used.

*Note 3* – According to § 3.3.4 if an STE detects that the value of the Q bit has changed within a packet sequence it may reset the virtual call or permanent virtual circuit.

# ANNEX D

(to Recommendation X.75)

## Actions taken by the STE on time-outs in the packet layer

Under certain circumstances, the STE Y/X is required to respond to a packet from the STE X/Y within a stated maximum time. If any of these maximum times are exceeded, a time-out in the STE X/Y will initiate the actions summarized in Tables D-1/X.75 and D-2/X.75. Therefore, this must be taken into account in the STE design.

TABLE D-1/X.75

STE X/Y time-outs (first time)

Time-out number	Time-out value	State of the logical channel	Started when	Normally terminated when	Actions to be taken the first time the time-out expires	
					Toward STE Y/X	Toward network
T30	180 sec	r2/r3	STE X/Y issues a <i>restart request</i> packet	STE X/Y leaves the r2/r3 state (i.e., a <i>restart confirmation</i> or <i>restart request</i> packet is received)	STE X/Y signals a <i>restart request</i> packet ( <i>network congestion</i> , ## 52) again, and restarts time-out T30	For permanent virtual circuits, the STE signals a <i>reset request</i> packet ( <i>network congestion</i> , ## 52)
T31	200 sec	p2/p3	STE X/Y issues a <i>call request</i> packet	STE X/Y leaves the p2/p3 state (e.g., a <i>call connected</i> , <i>clear request</i> or <i>call request</i> packet is received)	STE X/Y enters the p6/p7 state signalling a <i>clear request</i> packet ( <i>network congestion</i> , ## 49)	STE X/Y signals a <i>clear request</i> packet ( <i>network congestion</i> , ## 49)
T32	180 sec	d2/d3	STE X/Y issues a <i>reset request</i> packet	STE X/Y leaves the d2/d3 state (e.g., a <i>reset confirmation</i> or <i>reset request</i> packet is received)	STE X/Y signals a <i>reset request</i> packet ( <i>network congestion</i> , ## 51) again and restarts time-out T32	STE X/Y signals <i>reset request</i> packet ( <i>network congestion</i> , ## 51)
T33	180 sec	p6/p7	STE X/Y issues a <i>clear request</i> packet	STE X/Y leaves the p6/p7 state (e.g., a <i>clear confirmation</i> or <i>clear request</i> packet is received)	STE X/Y signals a <i>clear request</i> packet ( <i>network congestion</i> , ## 50) again, and restarts time-out T33	



TABLE D-2/X.75

**STE X/Y time-outs (second time)**

Time-out number	Actions to be taken the second time the time-out expires	
	Toward STE Y/X	Toward network
T30	STE X/Y enters the r1 state <i>Note</i> – Further actions may be initiated at higher level	For permanent virtual circuits, STE X/Y signals a <i>reset request</i> packet ( <i>network congestion</i> , ## 52)
T31	(Not possible; T31 is not restarted after it has expired)	
T32	For virtual calls, STE X/Y enters the p6/p7 state signalling a <i>clear request</i> packet ( <i>network congestion</i> , ## 51)  For permanent virtual circuits, STE X/Y enters the d1 state	For virtual calls, STE X/Y signals a <i>clear request</i> packet ( <i>network congestion</i> , ## 51)  For permanent virtual circuits, STE X/Y signals a <i>reset request</i> packet ( <i>network congestion</i> , ## 51)
T33	STE X/Y enters the p1 state.	

ANNEX E

(to Recommendation X.75)

**Coding of network generated diagnostic fields in X.75 clear,  
reset and restart packets**

TABLE E-1/X.75

(See Notes 1, 2, 3 and 9)

Diagnostics	Bits								Decimal
	8	7	6	5	4	3	2	1	
<i>No additional information</i>	0	0	0	0	0	0	0	0	0
Invalid P(S)	0	0	0	0	0	0	0	1	1
Invalid P(R)	0	0	0	0	0	0	1	0	2
	0	0	0	0	1	1	1	1	15
<i>Packet type invalid</i>	0	0	0	1	0	0	0	0	16
For state r1	0	0	0	1	0	0	0	1	17
For state r2	0	0	0	1	0	0	1	0	18
For state r3	0	0	0	1	0	0	1	1	19
For state p1	0	0	0	1	0	1	0	0	20
For state p2	0	0	0	1	0	1	0	1	21
For state p3	0	0	0	1	0	1	1	0	22
For state p4	0	0	0	1	0	1	1	1	23
For state p5	0	0	0	1	1	0	0	0	24
For state p6	0	0	0	1	1	0	0	1	25
For state p7	0	0	0	1	1	0	1	0	26
For state d1	0	0	0	1	1	0	1	1	27
For state d2	0	0	0	1	1	1	0	0	28
For state d3	0	0	0	1	1	1	0	1	29
	0	0	0	1	1	1	1	1	31
<i>Packet not allowed</i>	0	0	1	0	0	0	0	0	32
Unidentifiable packet	0	0	1	0	0	0	0	1	33
Call on one way logical channel (Note 4)	0	0	1	0	0	0	1	0	34
Invalid packet type on a permanent virtual circuit	0	0	1	0	0	0	1	1	35
Packet on unassigned logical channel	0	0	1	0	0	1	0	0	36
Reject not subscribed to (Note 4)	0	0	1	0	0	1	0	1	37
Packet too short	0	0	1	0	0	1	1	0	38
Packet too long	0	0	1	0	0	1	1	1	39
Invalid general format identifier	0	0	1	0	1	0	0	0	40
Restart with non-zero in bits 1-4, 9-16	0	0	1	0	1	0	0	1	41
Packet type not compatible with facility/utility (Note 5)	0	0	1	0	1	0	1	0	42
Unauthorized interrupt confirmation	0	0	1	0	1	0	1	1	43
Unauthorized interrupt	0	0	1	0	1	1	0	0	44
Unauthorized reject (Note 4)	0	0	1	0	1	1	0	1	45
	0	0	1	0	1	1	1	1	47

TABLE E-1/X.75 (continued)

Diagnostics	Bits								Decimal
	8	7	6	5	4	3	2	1	
<i>Time expired</i>	0	0	1	1	0	0	0	0	48
For incoming call/call request (Note 6)	0	0	1	1	0	0	0	1	49
For clear indication/request (Note 6)	0	0	1	1	0	0	1	0	50
For reset indication/request (Note 6)	0	0	1	1	0	0	1	1	51
For restart indication/request (Note 6)	0	0	1	1	0	1	0	0	52
	0	0	1	1	1	1	1	1	63
<i>Call set-up or clearing problem</i>	0	1	0	0	0	0	0	0	64
Facility/utility code not allowed (Note 5)	0	1	0	0	0	0	0	1	65
Facility/utility parameter not allowed (Note 5)	0	1	0	0	0	0	1	0	66
Invalid called address	0	1	0	0	0	0	1	1	67
Invalid calling address	0	1	0	0	0	1	0	0	68
Invalid facility length	0	1	0	0	0	1	0	1	69
Incoming call barred	0	1	0	0	0	1	1	0	70
No logical channel available	0	1	0	0	0	1	1	1	71
Call collision	0	1	0	0	1	0	0	0	72
Duplicate facility/utility requested (Note 5)	0	1	0	0	1	0	0	1	73
Non-zero address length	0	1	0	0	1	0	1	0	74
Non-zero facility length	0	1	0	0	1	0	1	1	75
Facility/utility not provided when expected (Note 5)	0	1	0	0	1	1	0	0	76
Invalid CCITT-specified DTE facility	0	1	0	0	1	1	0	1	77
	0	1	0	0	1	1	1	1	79
<i>Miscellaneous</i>	0	1	0	1	0	0	0	0	80
Improper cause code from DTE/STE (Note 7)	0	1	0	1	0	0	0	1	81
Octet non-aligned	0	1	0	1	0	0	1	0	82
Inconsistent Q bit setting	0	1	0	1	0	0	1	1	83
NUI problem	0	1	0	1	0	1	0	0	84
	0	1	0	1	1	1	1	1	95
<i>Inter-network call set-up or clearing problem</i>	0	1	1	0	0	0	0	0	96
Unknown calling DNIC	0	1	1	0	0	0	0	1	97
TNIC mismatch	0	1	1	0	0	0	1	0	98
Call identifier mismatch	0	1	1	0	0	0	1	1	99
Negotiation error in utility parameter value	0	1	1	0	0	1	0	0	100
Invalid utility length	0	1	1	0	0	1	0	1	101
Non-zero utility length	0	1	1	0	0	1	1	0	102
M bit violation	0	1	1	0	0	1	1	1	103
	0	1	1	0	1	1	1	1	111

TABLE E-1/X.75 (continued)

Diagnostics	Bits								Decimal
	8	7	6	5	4	3	2	1	
<i>Inter-network problem</i>	0	1	1	1	0	0	0	0	112
Remote network problem	0	1	1	1	0	0	0	1	113
Inter-network protocol problem	0	1	1	1	0	0	1	0	114
Inter-network link out of order	0	1	1	1	0	0	1	1	115
Inter-network link busy	0	1	1	1	0	1	0	0	116
Transit network facility problem	0	1	1	1	0	1	0	1	117
Remote network facility problem	0	1	1	1	0	1	1	0	118
Inter-network routing problem	0	1	1	1	0	1	1	1	119
Temporary routing problem	0	1	1	1	1	0	0	0	120
Unknown called DNIC	0	1	1	1	1	0	0	1	121
Maintenance action	0	1	1	1	1	0	1	0	122
	0	1	1	1	1	1	1	1	127
<i>Reserved for network specific diagnostic information</i> (Note 8)	1	0	0	0	0	0	0	0	128
	1	1	1	1	1	1	1	1	255

*Note 1* – Not all diagnostic codes need apply to a specific network, but those used are coded as in the table.

*Note 2* – A given diagnostic need not apply to all packet types (i.e. *reset request*, *clear request* and *restart request* packets).

*Note 3* – The first diagnostic in each grouping is a generic diagnostic and can be used in place of the more specific diagnostics within the grouping. The decimal 0 diagnostic code can be used in situations where no additional information is available.

*Note 4* – Only generated at a user interface (see Recommendation X.25).

*Note 5* – When associated with the cause “Network congestion”, this indicates a utility problem; when associated with any other valid cause (see Tables 13/X.75, 15/X.75 and 17/X.75) this indicates a facility problem at a user interface.

*Note 6* – When associated with the cause “Network congestion”, this indicates an X.75 packet timer problem; when associated with any other valid cause (see Tables 13/X.75, 15/X.75 and 17/X.75) this indicates a packet timer problem at a user interface.

*Note 7* – When associated with the cause “Network congestion”, this indicates an invalid cause detected on an X.75 link; when associated with any other valid cause (see Tables 13/X.75, 15/X.75 and 17/X.75) this indicates an invalid cause detected at a user interface.

*Note 8* – When the associated cause is “Network congestion”, diagnostic codes in this range may by bilateral agreement between Administrations, be transferred across an X.75 link. However, the receiving network will alter such values, as described in §§ 4.2.3.2, 4.4.3.2 or 4.5.1.2 as appropriate, before passing them to another network or across a user interface.

*Note 9* – When the associated cause is “Network congestion”, diagnostic codes in the range 1 to 111 will be altered by the receiving network, as described in §§ 4.2.3.2 , 4.4.3.2 or 4.5.1.2 as appropriate, before passing them to another network or across a user interface.

# ANNEX F

(to Recommendation X.75)

## Association of error conditions with cause and diagnostic codes

### a) Call request packet

Error condition	Cause	Specific diagnostics (see Note 3 of Annex E)
1. Not octet aligned packet (where detection of non-octet alignment is made at packet level if implemented; see § 3)	Network congestion	## 82
2. Address contains a non-BCD digit	Network congestion	## 67, 68
3. Address less than four digits	Network congestion	## 67, 68
4. Bit 8 of the octet which indicates the facility length field not set to 0	Network congestion	## 69
5. No combination of utilities could equal utility length	Network congestion	## 101
6. Facility or utility length larger than remainder of packet	Network congestion	## 38
7. Utility value conflicts (e.g., a particular combination not supported)	Network congestion	## 66
8. Utility code not allowed	Network congestion	## 65
9. Utility value not allowed or invalid	Network congestion	## 66
10. Utility expected and not provided	Network congestion	## 76
11. Packet too short	Network congestion	## 38
12. Address length larger than remainder of packet	Network congestion	## 38
13. Call user data larger than 16, or 128 octets in case of fast select facility	Network congestion	## 39
14. Class coding of the utility corresponding to a length of parameter larger than remainder of packet	Network congestion	## 101
15. Utility code (except TNIC and RPOA) repeated	Network congestion	## 73
16. Duplicate TNIC	Network congestion	## 66
17. Unknown calling network identification	Network congestion	## 97
18. Bits 7 or 8 of the utility length field octet not set to 0	Network congestion	## 101
19. Unknown number	Not obtainable	## 67
20. Incoming call barred	Access barred	## 70
21. Closed user group protection	Access barred	## 65

Error condition		Cause	Specific diagnostics (see Note 3 of Annex E)
22.	Reverse charging rejected	Reverse charging acceptance not subscribed	## 0
23.	Fast select rejected	Fast select acceptance not subscribed	## 0
24.	National address smaller than national address format permits	Not obtainable	## 67, 68
25.	National address larger than national address format permits	Not obtainable	## 67, 68
26.	Called DTE out of order	Out of order	## 0 ## greater than 127
27.	No logical channel available	Number busy	## 71
28.	Call collision	Number busy	## 71, 72
29.	The remote DTE/DCE interface does not support a function or a facility request	Incompatible destination	## 0
30.	Procedure error at the remote DTE/DCE interface	Remote procedure error	(see Annex E)
31.	Network congestion or fault condition within the network	Network congestion	## 0 ## greater than 127 (see Note 8 to Annex E)
32.	Planned maintenance activity within the network	Network congestion	## 122
33.	Network fault condition detected other than at the local STE–X/Y interface	Network congestion	## 113
34.	X.75 protocol error detected other than at the local STE–X/Y interface	Network congestion	## 114
35.	No inter–Administration service agreement is recorded for calls from the calling network to the called network	Access barred	## 119
36.	No inter–Administration service agreement is recorded for calls from the calling network to the called network using the routing indicated	Access barred	## 119
37.	The inter–Administration service agreement does not permit calls using the requested facility(ies) from the calling network to the called network	Incompatible destination	## 118

Error condition	Cause	Specific diagnostics (see Note 3 of Annex E)
38. The routing process is unable to determine any suitable outgoing link for the called network	Not obtainable	## 121
39. The routing process is unable to determine a suitable outgoing link with a free logical channel	Network congestion	## 116
40. Call collision is detected on the selected outgoing link	Network congestion	## 116
41. The routing indicated in the received <i>call request</i> packet is too long for an overall routing conforming to X.110 to be provided [e.g., because alternative routing has already been used]	Network congestion	## 120
42. The routing indicated in the received <i>call request</i> packet cannot be extended to provide an overall routing in conformance with X.110 [e.g., because the prior use of alternative routing means that a circular routing would be formed]	Network congestion	## 120
43. Each of the suitable outgoing links determined by the routing process is subject to an unplanned outage	Network congestion	## 115
44. The routing process is unable to determine a suitable operational outgoing link supporting the requested facility(ies)	Network congestion	## 117
45. The routing process is unable to determine a suitable operational outgoing link supporting the parameter value of a requested facility	Network congestion	## 117
46. None of the suitable outgoing links determined by the routing process is operational, and at least one is subject to a planned outage for essential maintenance	Network congestion	## 122
47. Requested RPOA out of order	RPOA out of order	## 0
48. Requested RPOA invalid or not supported	RPOA out of order	## 119
49. NUI utility value invalid/unsupported or NUI utility required but absent	Access barred	## 84

Note – Error conditions 19 to 30 are examples for problems related to the destination network.

b) *Call connected packet*

Error condition		Cause	Specific diagnostics (see Note 3 of Annex E)
1.	Not octet aligned packet (where detection of non-octet alignment is made at packet level if implemented; see § 3)	Network congestion	## 82
2.	Address contains a non-BCD digit	Network congestion	## 67, 68
3.	Address less than four digits	Network congestion	## 67, 68
4.	Bit 8 of the octet which indicates the facility length field not set to 0	Network congestion	## 69
5.	No combination of utilities could equal utility length	Network congestion	## 101
6.	Facility or utility length larger than remainder of packet	Network congestion	## 38
7.	Utility value conflicts (e.g., a particular combination not supported)	Network congestion	## 66
8.	Utility code not allowed	Network congestion	## 65
9.	Utility value not allowed or invalid	Network congestion	## 66
10.	Utility expected and not provided	Network congestion	## 76
11.	Packet too short	Network congestion	## 38
12.	Address length larger than remainder of packet	Network congestion	## 38
13.	Call user data larger than 128 octets in case of <i>fast select</i> facility	Network congestion	## 39
14.	Call user data present (if <i>fast select</i> facility not requested)	Network congestion	## 39
15.	Class coding of the utility corresponding to a length of parameter larger than remainder of packet	Network congestion	## 101
16.	Utility code (except TNIC and RPOA) repeated	Network congestion	## 73
17.	Unknown calling network identification	Network congestion	## 97
18.	Bits 7 or 8 of the utility length field octet not set to 0	Network congestion	## 101
19.	Duplicate TNIC	Network congestion	## 66
20.	The <i>call request</i> packet indicated <i>fast select</i> with restriction on response	Network congestion	## 42
21.	Call identifier mismatch	Network congestion	## 99
22.	TNIC mismatch	Network congestion	## 98
23.	Negotiation error in utility parameter value	Network congestion	## 100
24.	NUI utility value invalid/unsupported or NUI utility required but absent	Access barred	## 84



c) *Clear request packet*

Error condition	Cause	Specific diagnostics (see Note 3 of Annex E)
1. Not octet aligned packet (where detection of non-octet alignment is made at packet level if implemented; see § 3)	Network congestion	## 82
2. Packet too short	Network congestion	## 38
3. Packet too long	Network congestion	## 39
4. Address length fields incorrectly set to non-zero	Network congestion	## 74
5. Utility length field incorrectly set to non-zero	Network congestion	## 102
6. Call user data larger than 128 in case of <i>fast select</i> facility (if <i>fast select</i> facility requested)	Network congestion	## 39
7. Call user data present (if <i>fast select</i> facility not requested)	Network congestion	## 39
8. Improper cause code from STE (if implemented; see § 4.2.3.1)	Network congestion	## 81

d) *Clear confirmation packet*

Error condition	Cause	Specific diagnostics (see Note 3 of Annex E)
1. Not octet aligned packet (where detection of non-octet alignment is made at packet level if implemented; see § 3)	Network congestion	## 82
2. Packet length larger than 3 octets	Network congestion	## 39

## APPENDIX I

(to Recommendation X.75)

### **Examples of multilink resetting procedures**

#### I.1 *Introduction*

The following examples illustrate application of the multilink resetting procedures in the case of:

- a) MLP reset initiated by a single STE; and
- b) MLP reset initiated by both STEs simultaneously.

#### I.2 *MLP reset initiated by a single STE*

Figure du point I.2 - T0702240-87

#### I.3 *MLP reset initiated by both STEs simultaneously*

Figure du point I.3 - T0702250-87