



## **C U S T O M E R S U P P O R T B U L L E T I N**

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### **ISDN Cause Codes (Codes Returned by the Telephone Network)**

21 February, 2001

When there is an ISDN problem in the network, a phrase appears in the ISDN protocol log that communicates information about the cause of the trouble. These "Cause Values" are messages generated by the network, which the Telos Equipment translates to the associated phrases. When possible, we use those suggested by the Bellcore standard. Note that in some cases there may be more than one meaning. This can frequently be evaluated by whether the message has been received by the calling party or the called party.

#### **CLASS 1.1 (normal)**

##### **Cause No. 1 - Check number, redial (unallocated number)**

This cause indicates that the called party cannot be reached because, although the called party number is in a valid format, it is not currently allocated (assigned).

##### **Cause No. 2 - No route to network /Prefix 0 dialed in error**

This cause indicates that the equipment sending this cause has received a request to route the call through a particular transit network which it does not recognize. The equipment sending this cause does not recognize the transit network either because the transit network does not exist or because that particular transit network, while it does exist, does not serve the equipment which is sending this cause.

or

This cause indicates the prefix 0 is invalid for the entered number

##### **Cause No. 3 - No route to dest./Prefix 1 dialed in error**

This cause indicates that the called party cannot be reached because the network through which the call has been routed does not serve the destination desired. This cause is supported on a network-dependent basis.

or

A 1 was dialed when not required. Redial without the 1.

#### **Cause No. 4 – No prefix 1/Special Information Tone**

The prefix 1 is not required for this number

or

This cause indicates that the called party cannot be reached for reasons that are of a long term nature and that the special information tone should be returned to the calling party.

#### **Cause No. 5 – Misdialed trunk prefix (National use)**

This cause indicates the erroneous inclusion of a trunk prefix in the called party number.

#### **Cause No. 6 – Channel unacceptable**

This cause indicates a called user cannot negotiate for a B-channel other than that specified in the SETUP message.

#### **Cause No. 7 – Call awarded and being delivered on an established channel**

This call indicates the user has been awarded the incoming calls, and that call is being connected to a channel already established to that user for similar calls (e.g. packet-mode, X.25 virtual calls, etc).

#### **Cause No. 8 – Call is proceeding/Preemption**

Call in process, please standby.

or

This cause indicates a call has been preempted.

#### **Cause No. 9 – Preemption, reserved**

This cause indicates a calls has been preempted due to the circuit being reserved for reuse.

#### **Cause No. 14 – Excess digits received, call is proceeding**

More digits were dialed than expected. Called number has been truncated to the expected number.

### **Cause No. 16 - Far end disconnect (Normal call clearing)**

This cause indicates that the call is being cleared because one of the users involved in the call has requested that the call be cleared. Under normal situations, the source of this cause is not the network.

### **Cause No. 17 - Busy, try again later (User busy)**

This cause is used to indicate that the called party is unable to accept another call because the user busy condition has been encountered. This cause value may be generated by the called user or by the network. In the case of user determined user busy it is noted that the user equipment is compatible with the call.

### **Cause No. 18 - No far end response (No user responding)**

This cause is used when a called party does not respond to a call establishment message with either an alerting or connect indication within the prescribed period of time allocated (before timer T303 or T310 has expired).

### **Cause No. 19 - No answer (No answer from user, user alerted)**

This cause is used when the called user has provided an alerting indication, but not a connect indication within a prescribed period of time (before timer T301 has expired).

### **Cause No. 20 – Subscriber absent**

This cause is used when a mobile station has logged off, radio contact is not obtained with a mobile station or a personal telecommunications user is temporarily not addressable at any user-network interface.

### **Cause No. 21 - Call rejected**

This cause indicates that the equipment sending this cause does not wish to accept this call, although it could have accepted the call because the equipment sending this cause is neither busy nor incompatible.

This cause may also be generated by the network, indicating that the call was cleared due to a supplementary service constraint.

### **Cause No. 22 - Number changed**

This cause is returned to a calling party when the called party number indicated by the calling party is no longer assigned, The new called party number may optionally be included in the diagnostic field. If a network does not support this cause, cause no: 1, unallocated (unassigned) number shall be used.

**Cause No. 26 – Non-selected user clearing**

This cause indicates the user has not been awarded the incoming call.

**Cause No. 27 – Destination out of order**

This cause indicates that the destination indicated by the user cannot be reached because the interface to the destination is not functioning correctly. The term "not functioning correctly" indicates that a signal message was unable to be delivered to the remote party; e.g. a physical layer or data link layer failure at the remote party, or user equipment off-line.

**Cause No. 28 - Incorrect number (invalid number format, address incomplete)/Special intercept announcement**

This cause indicates that the called party cannot be reached because the called party number is not in a valid format or is not complete.

or

This cause indicates the user should be returned a Special Intercept Announcement.

**Cause No. 29 – Facility rejected/Special Intercept announcement: undefined code**

This cause indicates a facility requested cannot be provided by the network.

or

This cause indicates that a user in a special business group (i.e. Centrex) dialed an undefined code.

**Cause No. 30 – Result of a STATus ENquiry/Special intercept announcement: number unassigned**

This cause is included in the Status Message when the reason for sending the Status Message was previous receipt of a Status Enquiry message.

or

This value indicates that a user from outside a basic business group (i.e. Centrex) has violated an access restriction feature.

**Cause No. 31 - Network disconnect (Normal, unspecified)/Special intercept announcement: Call blocked because of group restrictions**

This cause is used to report a normal event only when no other cause in the normal class applies.

or

This value indicates that a user from outside a basic business group (i.e. Centrex) violated an access restriction feature

## **CLASS 1.2 (Resource unavailable)**

### **Cause No. 34 - No circuit available (circuit/channel congestion)**

This cause indicates that there is no appropriate circuit/channel presently available to handle the call.

### **Cause No. 38 - Net out of order**

This cause indicates that the network is not functioning correctly and that the condition is likely to last a relatively long period of time e.g. immediately re-attempting the call is not likely to be successful.

### **Cause No. 41 - Net problem, redial (Temporary Failure)**

This cause indicates that the network is not functioning correctly and that the condition is not likely to last a long period of time; e.g. the user may wish to try another call attempt almost immediately. May also indicate a data link layer malfunction locally or at the remote network interface or that a call was cleared due to protocol error(s) at the remote network interface.

### **Cause No. 42 - Net busy, redial (Switching Equipment Congestion)**

This cause indicates that the switching equipment generating this cause is experiencing a period of high traffic.

### **Cause No. 43 – Access/user information discarded**

This cause indicates that the network unable to deliver user information (i.e user-to-user information, low level compatibility or sub-address, etc) to the remote users as requested.

### **Cause No. 44 - No channel available (Requested circuit/channel not available)**

This cause is returned when the circuit or channel indicated by the requesting entity cannot be provided by the other side of the interface.

### **Cause No. 47 - Resource unavailable/New Destination**

This cause is used to report a resource unavailable event only when no other cause in the resource unavailable class applies.

or

This cause is used to indicate that the original destination is unavailable and to invoke redirection to a new destination.

**Cause No. 49 – QOS unacceptable**

This cause is returned when the Quality of Service is unacceptable.

**CLASS 1.3 (service or option not available)**

**Cause No. 50 – Requested facility not subscribed**

The cause is used to report that the user cannot use this feature because s/he has not subscribed to it.

**Cause No. 51 – Bearer capability incompatible with service request**

This cause indicates a user request for action was rejected because the action was incompatible with the capability of the call.

**Cause No. 52 – Outgoing calls barred**

This cause indicates that because of call screening provided by the network, the calling user is not permitted to make a call.

**Cause No. 53 – Service operation violated**

This cause indicates that the user has violated the service operation.

**Cause No. 54 – Incoming calls barred**

The user will not accept the call delivered in the SETUP message.

**Cause No. 57 – Bearer capability (Data/voice) not authorized.**

This cause indicates that the user has requested a bearer capability which is implemented by the equipment which generated this cause but the user is not authorized to use it. This is a common problem caused by wrong Telco provisioning of the line at the time of installation.

**Cause No. 58 – Bearer capability not presently available**

This caused indicates the users has requested a bearer capability which has been implemented by the equipment, but is not available at this time.

## **CLASS 1.4 (Service or option not implemented)**

### **Cause No. 63 – Service or option not available, unspecified**

This cause is used to report a service or option not available, only when no other cause in this class applies.

### **Cause No. 65 - Bearer Capability not implemented (Incompatible bearcap)**

This cause indicates that the equipment sending this cause does not support the bearer capability requested.

### **Cause No. 66 – Channel type not implemented**

This cause is returned when the called party has reached a channel type not supported.

### **Cause No. 69 – Requested facility not implemented**

This cause indicates that the network (or node) does not support the requested bearer capability and therefore cannot be accessed at this time.

### **Cause No. 70 - Restricted only**

This cause indicates that the calling party has requested an unrestricted bearer service but the equipment sending this cause only supports the restricted version of the requested bearer capability.

### **Cause No. 79 – Service or option not implemented, unspecified**

This cause is used to report a service or option not implemented event only when no other cause in this class applies.

## **CLASS 1.5 (Invalid message; e.g. parameter out of range)**

### **Cause No. 81 – Invalid call reference value**

This cause indicates that the equipment sending this cause has received a message with a call reference which is not currently in use on the user-network interface. This value only applies if the call reference values 1 or 2 octets long and is not the global call reference.

### **Cause No. 82 – Identified channel does not exist**

This cause is sent when the equipment sending this cause has received a request to use a channel not active on the interface for a call

**Cause No. 83**

A suspended call exists, but this call's identity does not

**Cause No. 84 – Call identity in use**

This cause indicates that a call identity is in use.

**Cause No. 85 – No call suspended**

This cause indicates that no call is suspended.

**Cause No. 86 – Requested call identity cleared**

This cause indicates that the call having the requested called entity has cleared.

**Cause No. 88 - Incompatible destination**

This cause indicates that the equipment sending this cause has received a request to establish a call which has low layer compatibility, high layer compatibility or other compatibility attributes (e.g. data rate, DN subaddress) which cannot be accommodated. This call can also be returned by a switch to a CPE when trying to route a call to an incompatible facility, or one without data rate.

**Cause No. 91 - Invalid transit network selection**

This cause indicates that an Invalid transit network selection has been requested.

**Cause No. 95 – Invalid message, unspecified**

This cause indicates that the entity sending this cause has received an Invalid message, only when no other cause in this class applies.

**CLASS 1.6 (Protocol error; e.g. unknown message)****Cause No. 96 – Mandatory Info missing**

This cause indicates that the equipment sending this cause has received a message which is missing an information element which must be present in the message before that message can be processed.

### **Cause No. 97 - Message type non-existent or not implemented**

This cause indicates that the equipment sending this cause has received a message with a message type it does not recognize either because this is a message not defined, or defined and not implemented by the equipment sending this cause.

### **Cause No. 98 – Message not compatible**

This cause indicates that the message received is not compatible with the call state or the message type is non-existent or not implemented.

### **Cause No. 99 – Info non-existent or not implemented, call processed**

This cause is sent when the equipment sending this cause has received a message which includes the information elements not recognized because the information element identifier is not defined or it is defined but not implemented by the equipment sending the cause. However, the information element is not required for the equipment sending the cause to process the message.

### **Cause No. 100 – Invalid information element contents**

This cause is returned when the equipment sending this cause has received an information element that it has implemented; however one or more field of the information element are coded in such a way (e.g., truncated, invalid extension bit, invalid field values, etc) that has not been implemented by the equipment sending this cause.

### **Cause No. 101 – Message not compatible with call state/Protocol error threshold**

This cause is returned when the equipment sending this cause has received a message that procedures indicate is not a permissible message to receive at this time.

or

This cause indicates that the switch sending this cause is clearing the call because a threshold has been exceeded for multiple protocol errors during an active call.

### **Cause No. 102 - Timeout disconnect (Recovery on timer expiration)**

This cause indicates that a procedure has been initiated by the expiry of a timer in association with error handling procedures.

### **Cause No. 111 – Protocol Error, unspecified**

This cause is used to report a protocol error event only when no other cause in this class applies.

Among other things, this cause may be displayed if you failed to dial a “9” or “8” for an outside line, if required. Also may be returned if you have some types of restrictions as to the number of calls, etc.

## **CLASS 1.7 (Interworking class)**

### **Cause No. 127 - SW56 disconnect (Internetworking, unspecified)**

This cause indicates that an interworking call (usually a call to SW56 service) has ended. May also be seen in the case of a non specific rejection by your long distance carrier (try again at a different rate)

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