ISDN Cause Codes

The following is a comprehensive list of call clearing codes that will appear on a Norstar set when a call is placed over a PRI circuit. The codes are also known as:

ISDN Event Cause Codes Bellcore Standard ISDN Cause Codes SS7 Cause Codes

The most common codes are 16 (normal disconnect) and 17 (busy).

Cause codes and definitions:

Cause No. 1: Unallocated (unassigned number). This cause indicates that the destination requested by the calling user cannot be reached because, although the number is in a valid format, it is not currently assigned (allocated).

Cause No. 2: no route to specified transit network. 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 network, while it does exist, does not serve the equipment that is sending this cause.

This cause is supported on a network-dependent basis.

Cause No. 3: no route to destination. This cause indicates that the called user 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.

Cause No. 6: channel unacceptable. This cause indicates that the channel used in this call is not acceptable to the sending entity.

Cause No.7: call awarded and being delivered in an established channel. This cause indicates that the user is receiving an incoming call, which is being connected to a channel already used by that user for similar calls (e.g., packet-mode X.25 virtual calls).

Cause No. 16: 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: user busy. This cause is used when the called user has indicated the inability to accept another call.

It is noted that the user equipment is compatible with call.

Cause No. 18: no user responding. This cause is used when a user does not respond to a call establishment message with either an alerting or connect indication within the prescribed period of time allocated (defined in Recommendation Q.931 by the expiry of either timer T303 or T310).

Cause No. 19: no answer from user (user alerted). This cause is used when a user has provided an alerting indication but has not provided a connect indication within a prescribed period of time. This cause is not necessarily generated by Q.931 procedures but may be generated by internal network timers.

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.

Cause No. 22: number changed. This cause is returned to a calling user when the called party number indicated by the calling user is no longer assigned. The new called party number may optionally be included in the diagnostic field. If a network does not support this <u>capability</u>, cause No. 1, unassigned (unallocated) number, shall be used.

Cause No. 26: non-selected user clearing. This cause indicates that the specified 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 signaling message was unable to be delivered to the remote user: e.g., a physical layer or data link layer failure at the remote user, user equipment off-line, etc.

Cause No. 28: invalid number format (address incomplete). This cause indicates that the called user cannot be reached because the called party number is not a valid format or is not complete.

Cause No. 29: facility rejected. This cause is returned when a facility requested by the user cannot be provided by the network.

Cause No. 30: response to STATUS INQUIRY. This cause is included in the STATUS message when the reason for generated the STATUS message was the prior receive of a STATUS INQUIRY message.

Cause No. 31: normal, unspecified. This cause is used to report a normal even only when no other cause in the normal class applies.

Cause No. 34: no circuit/channel available. This cause indicates that there is no appropriate circuit/channel presently available to handle the call.

Cause No. 38: network 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 reattempting the call is not likely to be successful.

Cause No. 41: 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.

Cause No. 42: switching equipment congestion. This cause indicates that the switching equipment generating this cause is experiencing a period of high traffic.

Cause No. 43: access information discarded. This cause indicates that the network could not deliver access information to the remote user as requested: i.e., user-to-user information, low layer compatibility, high layer compatibility, or a sub-address as indicated in the diagnostic. It is noted that the particular type of access information discarded is optionally included in the diagnostic.

Cause No. 44: 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, unspecified. This cause is used to report a resource unavailable event only when no other cause in the resource unavailable class applies.

Cause No 49: Quality of Service not available. This cause is used to report that the requested Quality of Service, as defined in Recommendation X.213, cannot be provided (e.g., throughput or transit delay cannot be supported).

Cause No. 50: requested facility not subscribed. This cause indicates that the requested supplementary service could not be provided by the network because the user has not completed the necessary administrative arrangements with its supporting networks.

Cause No 57: bearer capability not authorized. This cause indicates that the user has requested a bearer capability implemented by the equipment that generated this cause that the user is not authorized to use.

Cause No. 58: bearer capability not presently available. This cause indicates that the user has requested a bearer capability implemented by the equipment that generated this cause which is not available at this time.

Cause No 63: service or option not available, unspecified. This cause is used to report a service or option not available event only when no other cause in the service or option not available class applies.

Cause No. 65: bearer capability not implemented. 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 indicates that the equipment sending this cause does not support the channel type requested.

Cause No. 69: requested facility not implemented. This cause indicates that the equipment sending this cause does not support the requested supplementary service.

Cause No. 70: only restricted digital information bearer capability is available. This cause indicates that a device 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 the service or option not implemented class applies.

Cause No. 81: invalid call reference <u>value</u>. 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.

Cause No. 82: identified channel does not exist. This cause indicates that the equipment sending this cause has received a request to use a channel not activated on the interface for a call. For example, if a user has subscribed to those channels on a primary rate interface numbered from 1 to 12 and the user equipment or the network attempts to use channels 13 through 23, this cause is generated.

Cause No. 83: a suspended call exists, but this call identify does not. This cause indicates that a call resume has been attempted with a call identity which differs from that in use for any presently suspended call(s).

Cause No. 84: call identity in use. This cause indicates that the network has received a call suspend request. The call suspend request contained a call identity (including the null call identity) which is already in use for a suspended call within the <u>domain</u> of interfaces over which the call might be resumed.

Cause No. 85: no call suspended. This call indicates that the network has received a call resume request. The call resume request contained a call identity information element that presently does not indicate any suspended call within the domain interfaces over which calls may be resumed.

Cause No. 86: call having the requested call identity has been cleared. This cause indicates that the network has received a call resume request. The call resume request contained a call identity information element that once indicated a suspended call; however, that suspended call was cleared while suspended (either by network timeout or by remote user).

Cause No. 88: incompatible destination. This cause indicates that the equipment sending this cause has received a request to establish a call that has a low layer compatibility, high layer compatibility, or other compatibility attributes (e.g., data rater) that cannot be accommodated.

Cause No. 91: invalid transit network selection. This cause indicates that a transit network identification of an incorrect format as defined in Annex C/Q.931 was received.

Cause No. 95: invalid message, unspecified. This cause is used to report an invalid message event only when no other cause in the invalid message class applies.

Cause No. 96: mandatory information element is missing. This cause indicates that the equipment sending this cause has received a message that is missing an information element that 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 but not implemented by the equipment sending this cause.

Cause No. 98: message not compatible with call state or message type non-existent or not implemented. This cause indicates that the equipment sending this cause has received a message such that the procedures do not indicate that this is a permissible message to receive while in the call state, or a STATUS message was received indicating an incompatible call state.

Cause No. 99: information element non-existent or not implemented. This cause indicates that the equipment sending this cause has received a message that includes 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 to be present in the message in order for the equipment sending the cause to process the message.

Cause No. 100: invalid information element contents. This cause indicates that the equipment sending this cause has received an information element which it has implemented; however, one or more of the fields in the information element are coded in a way that has not been implemented by the equipment sending this

Cause No 101: message not compatible with call state. This cause indicates that a message has been received that is incompatible with the call state.

Cause No. 102: recovery on timer expiry. This cause indicates that a procedure has been initiated by the expiry of a timer in association with Q.931 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 the protocol error class applies.

Cause No. 127: interworking, unspecified. This cause indicates there has been interworking with a network that does not provide causes for actions it takes; thus, the precise cause for a message being sent cannot be ascertained.