APPENDIX A

Call Termination Cause Codes

Introduction

This appendix lists call termination cause values and definitions.

BTS 10200 Call Termination Cause Values and Definitions

Table A-1 lists the BTS 10200 call termination cause values and definitions.

Note A "*" next to the value in Table A-1 indicates the cause code is not a standard BAF cause code; it is unique to the Cisco BTS 10200 Softswitch. All values of 400 or higher are used internally only and do not appear in the billing records transmitted from the EMS.

Table A-1   Call Termination Cause Values and Definitions

Value	Cause Definition	In Release 7.0
1	Attempted termination to an unallocated or unassigned directory number.	Yes
2	No route available to the specified transit network.	Yes
3	No route available to the specified destination.	Yes
4	Vacant code.	Yes
6	Channel unacceptable.	Yes
7	Call awarded and being delivered in an established channel.	Yes
8	Prefix 0 was dialed in error.	Yes
9	Prefix 1 was dialed in error.	Yes
10	Prefix 1 was not dialed when required.	Yes
11	Excessive digits received, call is progressing.	Yes
12	Call is proceeding.	Yes

Table A-1   Call Termination Cause Values and Definitions (continued)

Value	Cause Definition	In Release 7.0
13	The requested service was denied.	Yes
14	Indicates an exchange detected that the called number was ported out.	Yes
16	Normal call clearing.	Yes
17	Termination called is busy.	Yes
18	No user responding.	Yes
19	User altering, no answer.	Yes
21	Call was rejected.	Yes
22	The terminating number was changed.	Yes
23	Terminating party rejects all calls with Calling Line Identification Restriction.	Yes
24	The destination business group is not defined.	Yes
25*	Exchange routing error occurred.	Yes
26*	For ANSI calls, the destination is misrouted because the number is ported out of the switch. For ISDN calls, the destination is able to accept calls but no user is assigned to the endpoint.	Yes
27	The specified destination was out of order.	Yes
28	Invalid number format or incomplete address.	Yes
29	Facility rejected.	Yes
30	Response to STATUS ENQ message.	Yes
31	Normal, unspecified.	Yes
34	Circuit or channel congestion.	Yes
35	Requested VPCI/VCI was not available.	Yes
36	VPCI/VCI assignment failure.	Yes
37	The user cell rate was unavailable.	Yes
38*	Network out of order.	Yes
39	The destination Permanent Virtual Circuit (PVC) is out of order.	Yes
41	Temporary failure.	Yes
42	Switching Equipment Congestion.	Yes
43	Access information discarded.	Yes
44	Requested channel not available.	Yes
45	No VPCI/VCI available.	Yes
46	Precedence call blocked.	Yes
47	Network resource unavailable or unspecified.	Yes
49	Quality of service unavailable.	Yes
50	Requested facility not subscribed to.	Yes

Table A-1   Call Termination Cause Values and Definitions (continued)

Value	Cause Definition	In Release 7.0
51	Bearer capability incompatible with service request.	Yes
53	Service operation violated.	Yes
57	Bearer capability not authorized.	Yes
58	Bearer capability not presently available.	Yes
63	Service or option unspecified.	Yes
65	Bearer capability not implemented.	Yes
66*	Channel type not implemented.	No
69	Requested facility not implemented.	Yes
70	Restoration digital bearer capacity only available.	No
73	Unsupported combination of traffic parameters.	Yes
78	AAL parameter cannot be supported.	Yes
79	Service or option not implemented.	Yes
81	Invalid call reference value.	Yes
82	Identified channel does not exist.	Yes
84*	Call id already in use.	No
85*	No call suspended.	No
86*	Call id cleared.	No
88	Incompatible destination.	Yes
89	Invalid endpoint reference.	Yes
90*	Unspecified invalid message error.	No
91	Invalid transit network selection.	Yes
92	Too many pending add party requests.	Yes
96	Mandatory information element missing.	Yes
97	Message type nonexistent or not implemented.	Yes
98*	Message type not compatible.	No
99	Information element nonexistent or not implemented.	Yes
100	Invalid information element contents.	Yes
101	Message not compatible with call state.	Yes
102	Recovery on timer expiration.	Yes
104	Incorrect message length.	Yes
111	Protocol error – unspecified.	Yes
112	Protocol error – threshold exceeded.	Yes
120	Special intercept announcement.	No
121	Special intercept announcement—undefined code.	No
122	Special intercept announcement—call blocked due to group restriction.	No

Table A-1   Call Termination Cause Values and Definitions (continued)

Value	Cause Definition	In Release 7.0
127	Interworking error—unspecified.	Yes
150	Call Terminated due to Session Timer Refresh Request Time Out.	Yes
901	NE Cause Audit Release.	Yes

BTS 10200 Bye Message Cause Code to GR-1100 Cause Code Mapping

The call termination cause code contained in a CDR is a mapping of the BTS 10200 call termination code to a GR-1100 code. In several cases, the cause code used during call processing does not map directly into a GR-1100. In these instances, the mapping shown in Table A-2 is performed to generate the CDR call termination cause code:

Table A-2   BTS 10200 Bye Message Cause Code to GR-1100 Cause Code Mapping

Bye Message Cause Code	Bye Message Cause Code Definition	Mapped BAF GR-1100 Cause Code	Mapped BAF GR-1100 Cause Code Definition
5	CA CCITT NE CAUSE TRUNKPREF MISDIAL	41	TEMPORARY FAILURE
8	CA ANSI NE CAUSE PREFIX 0 ERROR	8	ZERO DIALED IN ERROR
20	CA CCITT NE SUBSCRIBER ABSENT	1	UNASSIGNED NUMBER
23	CA ANSI NE DEST NUMBER UNALLOCATED	1	UNASSIGNED NUMBER
24	CA ANSI NE BUSINESS GRP UNDEFINED	1	UNASSIGNED NUMBER
25	CA ANSI NE CAUSE EXCHG ROUTE ERROR	47	RESOURCE UNAVAILABLE
38	CA CCITT NRU CAUSE NET OUTOFORDER	47	RESOURCE UNAVAILABLE
39	CA CCITT NRU CAUSE PVC OUTOFORDER	47	RESOURCE UNAVAILABLE
46	CA CCITT NRU PRECEDENCE CALL BLOCKED	21	CALL REJECTED
54	CA ANSI SNA GRP RESTR CALL BLOCKED	21	CALL REJECTED

Table A-2   ***BTS 10200 Bye Message Cause Code to GR-1100 Cause Code Mapping (continued)***

Bye Message Cause Code	Bye Message Cause Code Definition	Mapped BAF GR-1100 Cause Code	Mapped BAF GR-1100 Cause Code Definition
55	CA CCITT SNA IN CUG CALL BARRED	21	CALL REJECTED
62	CA CCITT SNA CAUSE SERVICE INCONSISTENCY	13	SERVICE DENIED
66	CA CCITT SNI CAUSE CHANNELTYPE UNIMPLEMENTED	65	BEARER CAPABILITY NOT IMPLEMENTED
70	CA CCITT SNI CAUSE RESTDIGITAL BEARERCAP ONLYAVAIL	49	QOS UNAVAILABLE
83	CA CCITT IM CAUSE SUSP CALLID NOTEXIST	31	NORMAL UNSPECIFIED
84	CA CCITT IM CAUSE CALLID INUSE	31	NORMAL UNSPECIFIED
85	CA CCITT IM CAUSE NOCALL SUSPENDED	31	NORMAL UNSPECIFIED
86	CA CCITT IM CAUSE CALLID CLEARED	31	NORMAL UNSPECIFIED
87	CA CCITT IM CAUSE USER NOT CUG MEMBER	31	NORMAL UNSPECIFIED
90	CA CCITT IM CAUSE CUG NOT EXIST	31	NORMAL UNSPECIFIED
95	CA CCITT IM CAUSE UNSPECIFIED	31	NORMAL UNSPECIFIED
98	CA CCITT PE CAUSE MSGTYPE NOTCOMPAT	101	MESSAGE INCOMPATIBLE WITH CALLSTATE
103	CA CCITT PE CAUSE NOTEXIST UNIMPL PARAM PASSON	100	INVALID INFOELEMENT
110	CA CCITT PE CAUSE UNRECOGNIZE PARAM DISCARD	100	INVALID INFOELEMENT