CHAPTER 5

Fault Recovery and Maintenance Messages

Fault recovery and maintenance (FRM) messages describe system processing and may appear at any time during system operation.

FRM messages are described in the following manner:

`FRMnnn: Message`

Explanation An explanation of the message.

Action A description of the action the user should take.

FRM Messages

`FRM001: PHASE 3 – System Initialization Complete`

Explanation The system controller, NBC, and DVCs (if any) are initialized. The DVCs may not have come into service.

Action None required.

`FRM002: PHASE 3 – (DVC or IPRC) Downloading Complete`

Explanation Voice announcement data was broadcast to all in-service DVCs or IPRCs in the system. DVC/IPRC cards will go active.

Action None required.

`FRM003: (DVC or IPRC) Download Complete – Card RLS X,X,XX`

Explanation Voice announcement data was downloaded to the DVC or IPRC in the slot location specified in the message. A single card download occurs whenever a voice card is removed and replaced in a subrack. The identified DVC/IPRC card will go active.

Action None required.

FRM004: Starting (DVC or IPRC) Data Download

Explanation At this point in a system restart, voice announcement data is being broadcast to all in-service DVCs or IPRCs in the system.

Action None required.

FRM005: (DVC or IPRC) Download Did Not Reach Completion

Explanation The download of voice data from the hard disk to the voice cards was abnormally interrupted. A minor system alarm was set. A previous FRM message should appear in the log file showing the download aborted. The affected DVC/IPRC card cannot provide announcement services.

Action Reseat the DVC/IPRC card to reinitialize the card and start a new voice data download from the system hard disk drive. If the problem continues, replace the DVC/IPRC card. Ensure that the SCSI cable connection to the card is secure.

FRM006: Transition From Standby To Active

Explanation Controller is switching from standby to active status. This system now carries the call traffic.

Action None required.

FRM007: Transition From Active To Standby

Explanation Controller is switching from active to standby status. This system marks itself off line to the AAC to reinitialize, then acts as standby until another transition occurs.

Action None required.

FRM010: Exception Data for Previous Fault Written To Log

Explanation This message is generated by the system during initialization following a system crash. The information related to the exception fault has been written to the system log file. The exception fault information is listed in the system log file.

Action Contact the Cisco Systems TAC with the exception fault information from the log file.

FRM011: No Voice Cards Responding Speech Download Aborted

Explanation Following a reboot, the cards were reset. There are DVCs in the database but none have come into service in the ten seconds since system initialization. Message FRM001 follows this message. If a DVC comes into service later, a directed download is performed for that card. A minor system alarm was set. Calls made without DVC resources generate the message FRM068: Announcement Pool Exhausted.

Action Check the affected DVC card. Reseat the card to force a reinitialization. Replace the card if necessary.

FRM012: Establishing Update Channel (MIN ALRM CLRD)

Explanation At this point in a redundant system restart, the active controller is establishing the update channel with the standby controller. File synchronization processing should begin.

Action None required.

FRM015: **Critical** Timeout Waiting For Tone Card

Explanation At system boot, a timer is set to wait for a DTG card to become active. The timer expired before a DTG card came into service. In a redundant system configuration, this system controller is not allowed to be the active controller. An active DTG card is required for the system to run.

Action Check the DTG card. Reseat the card to force a reinitialization. Replace the DTG card as necessary.

FRM016: UPD Message Too Big – Message Discarded

Explanation An internal update channel message was processed that exceeded the length restrictions. The message was discarded.

Action None required. The system should correct itself automatically.

FRM017: CP Message Overrun – Message Discarded

Explanation A call processing message was processed that exceeded the length restrictions. The message was discarded.

Action None required. The system should correct itself automatically.

FRM018: UPD VERIFICATION OF CONTROLLER STATUS FAILED

Explanation The active and standby status of both system controllers is verified when the update channel is established. This message warns of a failure in this internal software check. Processing verifies that one side knows it is A and the other knows it is B; also that one side knows it is active and the other knows it is standby.

Action If this problem persists, possible problems may include the SWI card or the Combined Controller assembly for either side. Replace the SWI or Combined Controller assembly as required.

FRM020: NBC EXTERNAL REFERENCE SIGNAL NOT PRESENT

Explanation The NBC attempted to synchronize to an external reference, and no external synchronization signal was detected at the jack on the front panel of the NBC. Having detected this fault, the NBC automatically synchronizes to the internal reference.

Action If external synchronization is desired, ensure that a suitable external timing reference signal is connected to the NBC front panel jack.

FRM021: NBC INCOMING REFERENCE SIGNAL NOT PRESENT

Explanation No incoming synchronization signal was detected at the T1 card location specified. The NBC automatically synchronizes to the internal reference. If either incoming link becomes available (present with no alarm conditions), the system tries to synchronize to it. Otherwise, the system remains synchronized to the internal reference.

Action Verify that the designated T1 span is Active. Select a different T1 span for the incoming reference if necessary.

FRM023: NBC CANNOT SYNC ON EXTERNAL REFERENCE

Explanation The system read the database which specifies that an external timing source or External is selected from the Master Timing Link. The attempt to synchronize on the external source failed. The system defaults to the internal reference.

Action Ensure that the external reference is connected and operating properly.

FRM024: NBC CANNOT SYNC ON INCOMING REFERENCE

Explanation The system attempted to synchronize to an incoming reference and failed. If either incoming reference becomes available (active with no alarms), the system attempts to synchronize with it. Otherwise, the system synchronizes to the internal reference.

Action Ensure that the selected incoming reference is active and operating properly. Select a different incoming reference if necessary.

FRM025: NBC SYNC OBTAINED – EXTERNAL REFERENCE

Explanation The NBC synchronized to an external reference source. If the timing link in the database is external, slips and out-of-frames (OOFs) are counted and tracked. Slips and OOFs are only ignored when the timing link indicated in the database differs from the source to which the NBC is actually synchronized.

Action None required.

FRM026: NBC SYNC OBTAINED – INCOMING REFERENCE

Explanation The NBC synchronized to an incoming reference source. Slips and OOFs are now counted and tracked.

Action None required.

FRM027: NBC SYNC OBTAINED – INTERNAL REFERENCE

Explanation The NBC synchronized to the internal reference source. If the timing link in the database is internal, slips and out-of-frames (OOFs) are not ignored. It is very likely that many of the T1/E1/PRI spans will begin to slip and/or experience OOF conditions.

Action Select a stable incoming T1/E1/PRI span as the incoming reference. The NBC should recognize the incoming reference and synchronize to it to provide reliable system timing.

FRM029: NBC ABNORMAL INTERRUPT PENDING

Explanation An abnormal T1 interrupt to the NBC is pending. A loss of synchronization may not be detected by the NBC should it occur. The NBC attempts to synchronize to a primary or secondary, if defined in the database. This could indicate an NBC hardware failure.

Action Ensure that the NBC is operating properly. If the NBC problem is evident, replace the NBC.

FRM030: NBC CANNOT OBTAIN 32M LOCK ON INTERNAL REFERENCE

Explanation The NBC cannot achieve phase lock between the 32-MHz system clock and the internal reference source. The 32-MHz clock is used for internal system timing; the system continues to operate with this condition present. This could indicate an NBC hardware failure.

Action Check the NBC for proper operation. Replace the NBC card as necessary.

FRM031: NBC LOSS OF SYNCHRONIZATION – EXTERNAL REFERENCE

Explanation The NBC lost synchronization with the external reference source. The system attempts to synchronize with the internal reference source.

Action Identify the problem with the external reference. Ensure that a reliable external reference is connected to the NBC front panel jack. If necessary, select a suitable incoming reference span for system timing. If the external reference is operating properly, replace the NBC card.

FRM032: NBC LOSS OF SYNCHRONIZATION – INCOMING REFERENCE

Explanation The NBC has lost synchronization with an incoming reference source. The system attempts to synchronize with the other incoming reference source, if it is active and shows no alarm conditions. If the system tries to synchronize to the other incoming source and fails, it tries to synchronize with the internal reference until an incoming reference is available.

Action Ensure that the selected incoming reference is operating properly. Select an alternative incoming reference if necessary. If you are unable to synchronize on any incoming reference, replace the NBC card.

FRM034: NBC ERRONEOUS REFERENCE SELECTED

Explanation The NBC was instructed to synchronize to an invalid source. Valid sources are internal, incoming and external. Current synchronization source is not altered.

Action This is likely the result of a keyboard input error causing the wrong slot to be entered. Correct the entry and try again. If the problem persists, ensure that the proper card type is defined for the desired slot. Ensure that the card is active with no alarms present. Replace the incoming reference card if necessary.

FRM035: ERROR: T1 SYNC SOURCE NOT ACTIVE – RLS X,X,XX

Explanation The NBC cannot synchronize to the primary incoming reference source because it has not been placed in active service or was removed from active service. The system attempts to synchronize to secondary if specified and available, or to internal.

Action Ensure that the primary incoming reference source is active and operating properly.

FRM036: INCOMING TIMING LINKS NOT AVAILABLE – RLS X,X,XX AND X,X,XX

Explanation The cards in the locations specified for the primary and secondary incoming Master Timing Links are not present, have alarms set, or are out-of-service. The system synchronizes to an internal reference.

Action Ensure that the necessary incoming reference spans are defined and operational.

FRM037: NBC LOSS OF INCOMING REFERENCE

Explanation The NBC lost incoming reference over the internal bus. Loss may be due to a loss of carrier or to an internal bus failure. The system checks the status of the other incoming reference. If it is available, the system tries to synchronize to it. If the system tries to synchronize to the other incoming source and fails, it tries to synchronize with the internal reference.

Action Ensure that the necessary incoming reference is operational.

FRM038: Error: PRI Sync Source Not Active – RLS X,X,XX

Explanation The NBC cannot synchronize to the primary incoming reference (the ICC ISDN span specified in the message) because it has not been placed in, or was removed from, active service. The system attempts to synchronize with the secondary incoming reference, if so specified and available, or attempts to synchronize with the internal reference.

Action Ensure that the primary incoming reference is operational.

FRM040: Internal Timing Reference Selected

Explanation A confirmation message that is received when the internal reference was selected. The system will synchronize on the internal timing reference. Slips and out-of-frames will likely be experienced by incoming T1/E1/PRI spans.

Action None required.

FRM041: External Timing Reference Selected

Explanation A confirmation message that is received when the external reference was selected. The system will synchronize on the external timing reference.

Action None required.

FRM042: Incoming Sync Master Selected – RLS X,X,XX

Explanation A confirmation message that is received when an incoming reference was selected, either primary or secondary. The specified incoming span has been identified and the system will synchronize the system clock using the incoming reference.

Action None required.

FRM045: Waiting For Incoming Master Timing Link

Explanation After the system boots, if an incoming reference is selected in the database, the system waits 30 seconds for the primary link to become available (active with no alarms). If the primary link becomes available before the timer expires, it is selected as master. If the 30-second timer expires, the secondary link is checked. If available, it is selected as the master. Otherwise the internal reference is selected.

Action None required.

FRM046: PRIMARY TIMING LINK NOT AVAILABLE – RLS X,X,XX

Explanation The card in the location specified for the primary incoming Master Timing Link is not present, is out-of-service, or has alarms active. The system attempts to synchronize to the secondary if defined.

Action Ensure that the primary timing link is operational.

FRM047: MASTER TIMING LINK NOT AVAILABLE – RLS X,X,XX

Explanation The card in the location specified for the primary incoming Master Timing Link is not present, is out-of-service, or has alarms active. The $C0 02 host command was used. The specified Master Timing link is not available. The system will try to synchronize on the secondary timing link if one is defined, else the system will switch to internal timing.

Action Ensure that the necessary Master Timing Link is available and operational.

FRM050: ERROR READING NBC DOWNLOAD FILE – CODE XX

Explanation An error was detected while attempting to read the NBC boot file from hard disk. The system is not operational; a system restart may follow.

Action If the problem persists, replace the NBC card. Continuing problems may require reinstallation of the system software.

FRM051: ERROR READING DOWNLOAD FILE – CODE XX FILE TYPE XX

Explanation An error was detected while attempting to read the voice data files from hard disk. No announcement data is downloaded to the DVCs. The system does not have announcement capability.

Action Use the Installation Utilities to reload the voice announcements onto the hard disk. Refer to the *Cisco VCO/4K Software Installation Guide* for instructions.

FRM056: TIMING LINK SELECTION NOT SAVED IN DATABASE!

Explanation The Timing Link selection made under the Maintenance menu is not saved to disk. If the system is restarted, the necessary timing link selection will not be restored.

Action Suspect a problem associated with the storage subsystem. This includes the SCSI cabling, the P2 connector board assembly, the hard disk drive, and/or the storage I/O module.

FRM057: Master Timing Link Selection Saved In Database

Explanation The Timing Link selection made under the Maintenance menu was saved to disk.

Action None required.

FRM058: Master Timing Link NOT Initialized In Database

Explanation The system read the system .tbl file and no entry was made to select a Master Timing Link. The system defaults to synchronize with the internal reference.

Action Select the necessary Master Timing link. Ensure that the link is operational.

FRM060: START RECORD MEMORY POOL EXHAUSTED

Explanation The system is unable to assign memory space marking the start record portion of a call record. In most cases, this is a call just starting and the incoming port is presented with a reorder tone. This also may occur for an outgoing port added to a conference. This message prints once and is followed by an FRM021 message when the condition clears.

Action The host must take action for the port. The host receives the command returned with a network status byte value of $29 – Internal error. The command cannot be completed.

FRM061: END RECORD MEMORY POOL EXHAUSTED

Explanation The system is unable to assign memory space marking the end record portion of a call record. In most cases, this is a call just starting and the incoming port is presented with a reorder tone. This also may occur for an outgoing port added to a conference. This message prints once and is followed by an FRM211 message when the condition clears.

Action The host must take action for the port. The host receives the command returned with a network status byte value of $29 – Internal error. The command cannot be completed.

FRM062: UPD START RECORD MEMORY POOL EXHAUSTED

Explanation The standby system controller is unable to assign memory space marking the start record portion of a call record. This fatal condition is followed by a Phase 4 system restart.

Action None required.

FRM063: UPD END RECORD MEMORY POOL EXHAUSTED

Explanation The standby system controller is unable to assign memory space marking the end record portion of a call record. This fatal condition is followed by a Phase 4 system restart.

Action None required.

FRM064: DTMF RECEIVER POOL EXHAUSTED

Explanation There is no DTMF receiver circuit available to service a call. The system is unable to hunt an idle DTMF receiver port. The command (if any) is returned to the host with a network status byte value of $1F. If the condition is encountered in inpulse rule processing, the rule is aborted. The host receives a Resource Limitation ($D6) report.

Action Add DTMF resources to the DTMF resource group.

FRM065: DTMF/MF SENDERS EXHAUSTED

Explanation There are no outpulsing channels on the DTG available to service a call. The command is returned with a network status byte value of $25.

Action This is a result of a high level of outgoing activity in the switch. Wait until the level is reduced and outpulsing channels are available.

FRM066: CONFERENCE POOL EXHAUSTED

Explanation There are no DCC ports available to satisfy the Conference Control command received from the host. The Command is returned with a network status byte value of $1F. The host receives a Resource Limitation ($D6) report.

Action This is a result of a high level of conference activity on the switch. Wait until conference resources are released and available for additional calls.

FRM067: MF RECEIVER POOL EXHAUSTED

Explanation There is no MF receiver circuit available to service a call. The system is unable to hunt an idle MF receiver port. The command (if any) is returned to the host with a network status byte value of $1F. If the condition is encountered in inpulse rule processing, the rule is aborted. The host receives a Resource Limitation ($D6) report. The incoming port is presented with a reorder tone.

Action Add MF receivers to the MF receiver resource group.

FRM068: ANNOUNCEMENT POOL EXHAUSTED

Explanation There is no DVC/IPRC circuit available to service a call. The system is unable to hunt an idle DVC/IPRC port. The command (if any) is returned to the host with a network status byte value of $1F. If the condition is encountered in inpulse rule processing, the rule is aborted. The host receives a Resource Limitation ($D6) report.

Action Add DVC/IPRC resources to the resource group.

FRM069: MFCR2 TRANSCEIVER POOL EXHAUSTED

Explanation No MFCR2 Transceivers are available to process the call. The system is unable to hunt an idle MFCR2 port. The command (if any) is returned to the host with a network status byte of $1F. If the condition is encountered during the processing of an inpulse rule, the rule is aborted. The host receives a Resource Limitation ($D6) report. The incoming port is presented with a reorder tone.

Action Add MFCR2 receivers to the resource group.

FRM070: **FATAL** NBC ERROR

Explanation A hard error was detected on either the SWI or NBC. This is a fatal alarm condition; a system reboot is imminent.

Action If the problem persists, replace the NBC.

FRM071: NBC RAW DATA – PC=XXXXXXXX ERROR MODE=XXXX

Explanation A hard error was detected on either the SWI or NBC. If the error persists, it may cause the system to reset.

Action Information useful to Cisco Systems TAC for identifying the cause of the fault is displayed in the message line. Contact Cisco Systems TAC. If the error persists, replace the NBC and/or SWI card or the Combined Controller assembly.

FRM072: UNABLE TO BOOT THE NBC

Explanation The first stage initialization task failed to recognize the NBC during the system boot process. The system is not operational. The system cannot operate without an operational NBC.

Action Remove and reseat the NBC and SWI; check the ribbon cable from the SWI to the NBC. Reset the system controller.

FRM073: NO RESPONSE FROM NBC FOR INITIALIZATION

Explanation The initialization task recognized but failed to reset the NBC as part of the system boot process. The system is not operational.

Action Check the ribbon cable from the SWI to the NBC, and remove and reseat the NBC and SWI. Reset the system. If the problem persists, replace the NBC.

FRM074: CONTINUAL NBC DOWNLOAD FAILURE

Explanation Multiple attempts to boot the NBC have failed. The system is not operational.

Action Power down, then remove and reseat the NBC and SWI. Check NBC and SWI cabling. Replace the NBC and reset the system. Contact Cisco Systems TAC.

FRM075: NBC REBOOT FAILED

Explanation An attempt to reboot the NBC failed. The system is not operational.

Action Power down, then remove and reseat the NBC and SWI. Check NBC and SWI cabling. Replace the NBC and reset the system. Contact Cisco Systems TAC.

FRM076: NBC T1 HARDWARE TEST FAILED

Explanation On power up or reset, the NBC failed to pass T1 related hardware self-tests. The system enters a Phase 4 – System Restart condition.

Action If the restart condition fails to reset the hardware, replace the NBC card.

FRM077: NBC RAM TEST FAILED

Explanation Firmware tests on the NBC have indicated that RAM on the NBC is defective. The affected side of the switch will be unable to process calls.

Action Replace the NBC.

FRM078: NBC COMM. BUS HARDWARE TESTS FAILED

Explanation Firmware tests on the NBC have indicated that internal communication bus hardware failed. The affected side of the switch will be unable to process calls.

Action Replace the NBC.

FRM079: NBC TSA CIRCUITRY TESTS FAILED

Explanation Firmware tests on the NBC have indicated that port address hardware failed. The affected side of the switch will be unable to process calls.

Action Replace the NBC.

`FRM080: NBC SHIFT REGISTER TESTS FAILED`

Explanation Firmware tests on the NBC have indicated that shift register hardware failed. The affected side of the switch will be unable to process calls.

Action Replace the NBC.

`FRM081: NBC PIT DEVICE TEST FAILED`

Explanation Firmware tests on the NBC have indicated that programmable interface timer hardware failed. The affected side of the switch will be unable to process calls.

Action Replace the NBC.

`FRM82: NBC INTERRUPT PROCESSING TEST FAILED`

Explanation Firmware tests on the NBC have indicated that hardware associated with generating and processing interrupt requests to or from the CPU failed. The affected side of the switch will be unable to process calls.

Action Replace the NBC.

`FRM83: NBC Retransmit Request – Buffer X, Addr X`

Explanation This is a diagnostic message for the System Controller/SWI/NBC interface. It indicates the Transmit SWI buffer, number X with address Y, is requested for retransmission due to negative acknowledgment received. It is only printed when the debug switch 24 is set.

Action The system will recover automatically. If the problem persists, replace the SWI or Combined Controller assembly, and/or the NBC.

`FRM085: NBC Reboot Completed`

Explanation The system controller successfully booted the NBC. The NBC is now fully initialized. Card initialization begins.

Action None required.

`FRM086: NBC Hardware Tests Passed`

Explanation Firmware tests on the NBC have indicated that circuitry is functional.

Action None required.

FRM087: NBC Status Set To Active

Explanation The system controller connected to this NBC was marked active by the AAC. The log file messages and system administration terminal are marked "ACT." A $DC report is sent to the host.

Action None required.

FRM088: NBC Status Set To Standby

Explanation The system controller connected to the NBC was marked standby by the AAC. The log file messages and system administration terminal are marked "SBY." An Active/Standby Mode ($DC) report is sent to the host.

Action None required.

FRM090: T1 Card Restored – RLS (CARD ALRM CLRD)

Explanation The card at the specified location was successfully reset and is now available. The card failure alarm was cleared. The card is available when the alarms for the card have cleared. The host is sent a System Card Status ($D9) report.

Action None required.

FRM091: Tone Card Restored – RLS X,X,XX (CARD ALRM CLRD)

Explanation The DTG card at the specified location was successfully reset and is now available. The card failure alarm was cleared. The host is sent a System Card Status ($D9) report.

Action None required.

FRM092: Unknown Card Type Detected – RLS X,X,XX Type X

Explanation An unrecognized type of card was inserted into the specified location. The system does not place this card into service.

Action It is not recommended that cards be inserted into the system for extended periods of time unless they are defined in the database. This condition interferes with normal system operation.

FRM093: Card in UNEQ Slot – RLS X,X,XX

Explanation A card was inserted into an unequipped slot at the specified location. The database indicates the location should be empty (UNEQ = Unequipped). The system does not place this card in service.

Action Check the card location against the Card Summary screen under the Database Administration menu. Use the Card Maintenance screen under the Maintenance menu to add the card to a location. It is not recommended that cards be inserted into the system for extended periods of time unless they are defined in the database. This condition interferes with normal system operation.

FRM094: Wrong Card TYPE Detected – RLS X,X,XX Card Type Reported – X

Explanation A card different from the type entered into the database for the specified location was inserted into the backplane slot. The system does not place this card in service.

Action Check the card location against the Card Summary screen under the Database Administration menu. Use the Card Maintenance screen under the Maintenance menu to assign the correct card to the location. It is not recommended that cards be inserted into the system for extended periods of time unless they are defined in the database. This condition interferes with normal system operation.

FRM095: Card Restored – RLS X,X,XX (CARD ALRM CLRD)

Explanation The card at the specified location was successfully reset and is now available. The card alarm was cleared. The host is sent a System Card Status ($D9) report.

Action None required.

FRM096: T1 CARD OOS – RLS X,X,XX (CARD ALRM SET)

Explanation The specified card failed to respond correctly on five successive polling attempts by the NBC and is thus considered out-of-service or was removed from service via system administration. The system issues a directed reset of the card at this location. The card alarm was set. The host is sent a System Card Status ($D9) report.

Action If the card will not reset and become active normally, replace the card.

FRM097: (DVC or IPRC) CARD OOS – RLS X,X,XX (CARD ALRM SET)

Explanation The specified card failed to respond correctly on five successive polling attempts by the NBC and is thus considered out-of-service or was removed from service via system administration. The system issues a directed reset of the DVC or IPRC in the slot number identified in the message. The card alarm was set. The host is sent a System Card Status ($D9) report.

Action If the card will not reset and become active normally, replace the card.

FRM098: **FATAL** DTG Card OOS – RLS X,X,XX (CARD ALRM SET)

Explanation The specified card failed to respond correctly on five successive polling attempts by the NBC and is thus considered out-of-service or was removed from service via system administration. Real-time diagnostics in DTG firmware have detected an error. There is no standby DTG available. This is a fatal alarm condition; a system reboot is imminent. The card alarm was set.

Action If the card does not reset and become active, replace the card.

```
FRM099: DTG CARD OOS – RLS X,X,XX SWITCHING TO RLS X,X,XX (CARD ALRM SET)
```

Explanation The first specified card failed to respond correctly on five successive polling attempts by the NBC and is thus considered out-of-service (OOS) or was removed from service via system administration. The active DTG is OOS. Call processing is switching to the standby DTG in the second specified slot. The card alarm was set. The host is sent a System Card Status ($D9) report.

Action Reseat the affected DTG card. If it will not reset successfully, replace the card.

```
FRM100: STANDBY DTG CARD OOS – RLS X,X,XX (CARD ALRM SET)
```

Explanation The specified card failed to respond correctly on five successive polling attempts by the NBC and is thus considered out-of-service or was removed from service via system administration. Real-time diagnostics in DTG firmware have detected an error. The card alarm was set. The active DTG is unaffected. The host is sent a System Card Status ($D9) report.

Action Reseat the affected DTG. If the card will not reset successfully, replace the card.

```
FRM101: CARD OOS – RLS X,X,XX (CARD ALRM SET)
```

Explanation The specified card failed to respond correctly on five successive polling attempts by the NBC and is thus considered out-of-service or was removed from service via system administration. The system issues a directed reset of the card at this location. The card alarm was set. Any calls involving this port are torn down. The host is sent a System Card Status ($D9) report.

Action If the card will not reset successfully, replace the card.

```
FRM102: CARD MSG – RLS X,X,XX Space for 45 characters here!
```

Explanation This message contains diagnostic information supplied by a card.

Action Contact Cisco Systems TAC.

```
FRM103: All Ports Deactivated - RLS X,X,X (CARD ALARM SET)
```

Explanation All ports on the card have been made inactive, either manually or automatically. An Alarm Condition ($F0) report is sent to the host specifying the card in which the alarm condition is detected.

Action Refer to the *Cisco VCO/4K Standard Programming Reference* or the *Cisco VCO/4K Extended Programming Reference* for a description of the $F0 report.

```
FRM104: All Ports No Longer Deactivated - RLS X,X,X (CARD ALARM CLRD)
```

Explanation Ports on the card have been made active, either manually or automatically. An Alarm Condition ($F0) report is sent to the host specifying the card in which the alarm condition is cleared.

Action Refer to the *Cisco VCO/4K Standard Programming Reference* or the *Cisco VCO/4K Extended Programming Reference* for a description of the $F0 report.

FRM105: TONE CARD SELFTEST FAULT ENCOUNTERED – RLS X,X,X

Explanation A DTG failed its self test. The card is out-of-service.

Action If the card will not reset automatically, replace the card.

FRM106: BRC Restored – RLS X,X,XX (CARD ALRM CLRD)

Explanation The BRC at the indicated location was restored to in service. The BRC and its pair are returned to active status if the redundant BRC pair is still in standby. The card alarm was cleared.

Action Check the status of the BRC pairs.

FRM107: BRC CARD OOS – RLS X,X,XX SWITCHING TO – RLS X,X,XX (CARD ALRM SET)

Explanation The BRC at the first location is out-of-service (OOS). The system switched over to the redundant BRC pair with the master at the second location. The card alarm was set.

Action Check the status of the BRC pairs. If the OOS BRC will not reset automatically, replace the card.

FRM108: **CRITICAL** BRC OOS – RLS X,X,XX (CARD ALRM SET)

Explanation The active BRC at the specified location is out-of-service (OOS) and there are no standby BRCs to switch over. The rack level is OOS and a card alarm was set. This will affect all cards in the affected subrack.

Action If the BRC will not reset, replace the card.

FRM109: STANDBY BRC OOS – RLS X,X,XX (CARD ALRM SET)

Explanation The standby BRC at the location indicated is out-of-service. The standby BRC pair cannot be used for switchover. A card alarm was set.

Action If the BRC will not reset successfully, replace the card.

FRM111: T1 OUT-OF-FRAME DETECTED – RLS X,X,XX (CARD ALRM SET)

Explanation An out-of-frame (OOF) condition was detected at the card at the location specified in the message. The OOF threshold counter was increased but not exceeded; the card is placed into maintenance mode and a card alarm is set.

Action If the condition does not clear, check for possible T1 path problems. Check for possible system timing irregularities. If the path and system timing are without problem, replace the T1 card.

FRM112: T1 CARRIER ALARM – RLS X,X,XX (CARD ALRM SET)

Explanation The system detected a loss of carrier at the card whose location is specified in the message. The card is placed into maintenance mode and a carrier lost card alarm is set.

Action Investigate the reason for loss of carrier from the incoming T1 span.

FRM113: T1 REMOTE CARRIER ALARM – RLS X,X,XX (CARD ALRM SET)

Explanation The system detected a loss of carrier signal from the far end of the span connected to the T1 card at the location specified in the message. The card is placed into maintenance mode and a remote carrier alarm is set.

Action The far end is signaling the loss of the incoming carrier. Ensure that the T1 span is generating a carrier. Investigate possible path problems going to the far end.

FRM114: T1 SLIP MAINTENANCE LIMIT REACHED – RLS X,X,XX (CARD ALRM SET)

Explanation The number of slips counted exceeds the number allowed for the system (256). The slip maintenance limit alarm is set. If the feature for Manual Intervention for slips/OOFs is set to Y, the card is put into maintenance mode. Otherwise, the card returns to active when the alarm clears at midnight.

Action If slips are a continuing problem on the affected span, investigate system timing settings, possible problems in the span path, and the T1 span card.

FRM115: T1 OUT-OF-FRAME Cleared – RLS X,X,XX (CARD ALRM CLRD)

Explanation The out-of-frame (OOF) condition detected at the card at the location specified in the message was cleared. The card alarm was cleared but the OOF threshold counter is not affected. This message does not print if the OOF maintenance limit was reached. The card returns to active mode.

Action None required.

FRM116: T1 CARRIER RESTORED – RLS X,X,XX (CARD ALRM CLRD)

Explanation The system detected restoration of carrier at the card whose location is specified in the message. The remote carrier alarm is cleared. If the carrier card alarm, slip maintenance limit, and out-of-frame maintenance limit card alarms are clear, the card returns to active mode and the host is sent a System Card Status ($D9) report.

Action None required.

FRM117: T1 REMOTE CARRIER ALARM CLEAR – RLS X,X,XX (CARD ALRM CLRD)

Explanation The system detected an alarm cleared signal from the far end of the T1 span connected to the card at the location specified in the message. If the carrier card alarm, slip maintenance limit, and out-of-frame maintenance limit card alarms are clear, the card returns to active mode and the host is sent a System Card Status ($D9) report.

Action None required.

FRM118: T1 INIT CODE XX – RLS X,X,XX

Explanation The system is unable to initialize the T1 card at the location specified in the message. The affected card is out-of-service.

Action If the card will not reset and initialize, replace the card.

FRM120: T1 OOF MAINTENANCE LIMIT REACHED – RLS X,X,XX (MIN ALRM SET)

Explanation The system threshold limit for out-of-frame (OOF) occurrences was exceeded by the card at the location specified in the message. The card is placed maintenance mode. If the card serves as the master timing link, the system attempts to resynchronize itself to another incoming link or to the internal reference source. The card alarm for OOF maintenance limit remains set until the card is reset. If the Manual Intervention for slip/OOF feature is enabled, the card remains in maintenance mode until reset via the Card Maintenance utility. No further log messages are printed for OOF conditions for this card, although the OOF alarm continues to cycle on/off.

Action If OOF occurrences continue, investigate problems on the path of the T1 span, system timing settings, or the T1 span card.

FRM121: T1 SIGNALING BIT ALARM – RLS X,X,XX (CARD ALRM SET)

Explanation A signaling bit error was detected at the card identified in the message. A card alarm was set. Call processing on the affected card may be interrupted or inhibited.

Action If the card does not recover automatically, try reseating the card. If problems persist, replace the card, or investigate problems with the T1 signaling path.

FRM122: T1 SIGNALING BIT ALARM CLEAR – RLS X,X,XX (CARD ALRM CLRD)

Explanation A signaling bit error detected at the card identified in the message was cleared. The card alarm was cleared.

Action None required.

FRM123: T1/E1 Card Configured for U-Law – RLS X,X,XX

Explanation The T1/E1 card with rack, level, slot (RLS) indicated are configured for -law coding. The message is generated whenever a T1/E1 card is activated.

Action None required.

FRM124: T1/E1 Card Configured for A-Law – RLS X,X,XX

Explanation The T1/E1 card with rack, level, slot (RLS) indicated are configured for A-law coding. The message is generated whenever a T1/E1 card is activated.

Action None required.

FRM131: CP MESSAGE PARSING ERROR

Explanation A call processing message read from the NBC cannot be decoded by the CPU. The message data is discarded. This message indicates either an internal processing fault or defective NBC or network interface cards.

Action None required.

FRM132: UPD MESSAGE PARSING ERROR

Explanation An update message passed between redundant system controllers cannot be decoded. The message data is discarded. This message indicates an internal processing fault.

Action None required.

FRM133: ILLEGAL PHYSICAL ADDRESS – ADDR XXX – MESG TYPE=XXX

Explanation A garbled message specifying an unknown physical address was processed across the NBC/SWI interface. The message data is discarded. Possibly causes call data to be lost.

Action If the problem persists, reseat the affected card. Replace the card as necessary.

FRM134: BAD NBC MESSAGE – ADDR XXX – MESG TYPE – XXX

Explanation A corrupted message was received from the NBC. Information useful to Cisco Systems TAC for identifying the cause of the fault is displayed in the message line. The message data is discarded.

Action If the problem persists, forward the error message information to the Cisco Systems TAC.

FRM135: BAD MESSAGE – RAW ADDR XX – MESG TYPE – XX

Explanation A corrupted message was received by the CPU. Information useful to Cisco Systems TAC for identifying the cause of the fault is displayed in the message line. The message data is discarded.

Action If the problem persists, forward the error message information to the Cisco Systems TAC.

FRM137: BAD UPD MESSAGE – TYPE XX

Explanation A corrupted message was read from the update channel between redundant system controllers. The type of message (xx) is information useful to Cisco Systems TAC. The message data is deleted.

Action If the problem persists, a system reset may occur due to loss of redundancy. Forward the error message information to the Cisco Systems TAC.

FRM138: FAILURE TO ESTABLISH UPDATE CHANNEL

Explanation The system failed to establish the update channel between redundant system controllers. This message is output periodically when the update channel is operating in a nonredundant system. Redundant operation is inhibited.

Action Investigate possible problems with the SWI card or Combined Controller. Replace the card as necessary.

FRM139: Download Aborted – Invalid Physical Address XX

Explanation The download reads the physical address (XX) of the card awaiting download from a mailbox. This message indicates the address read was invalid so the download process was aborted.

Action Verify if all downloadable cards are active and not in maintenance mode awaiting download. Reseat any cards that may be awaiting downloads to force a reinitialization. If a card will not reinitialize, replace it.

FRM140: OOS Buffer Received – Buffer X, Address X

Explanation Diagnostic message for the System Controller/SWI/NBC interface. An out of sequence buffer was received from the NBC3. It is only printed when debug switch 24 is set. Possible delay or failure in call processing.

Action The system should recover automatically. If the problem persists, investigate possible problems with the CPU, SWI/Combined Controller, or NBC3.

FRM141: Retransmitted Buffer Received – Buffer X, Address X

Explanation Diagnostic message for the System Controller/SWI/NBC3 interface. A buffer was received from the NBC3 in response to a retransmit request. This is only printed when debug 24 is set. This is an advisory message.

Action None required.

FRM142: Invalid Buffer Received – Buffer X, AddrX, vs X

Explanation Diagnostic message for the System Controller/SWI/NBC3 interface. The system software detected a checksum error in a buffer received from the NBC3. This is only printed when debug 24 is set. Possible delay or failure in call processing.

Action The system should recover automatically. If the problem persists, investigate possible problems with the CPU, SWI/Combined Controller, or NBC3.

FRM160: UPDATE CHANNEL XMIT REAL TIME OVERRUN PENDING

Explanation The system controller transmitting over the update channel is sending data at a rate that exceeds the capacity of the input buffer of the receiving system controller. The active system controller is transmitting data faster than the standby system controller can process the data.

Action If the condition persists, an overrun may be encountered in which update channel data will be lost. Investigate possible problems with the SWI/Combined Controller.

FRM161: UPDATE CHANNEL XMIT REAL TIME OVERRUN ENCOUNTERED

Explanation The system controller transmitting over the update channel exceeded the input buffer capacity of the receiving system controller. The update channel stops handling data and is reinitialized. Data was lost, but the system recovers when the channel is reestablished.

Action The system should recover automatically. If problems persist, investigate possible problems with the SWI/Combined Controller.

FRM162: UPDATE CHANNEL RCVR REAL TIME OVERRUN PENDING

Explanation The receiving system controller is indicating it is not emptying its input buffer quickly enough. No data was lost.

Action If the problem persists, an overrun condition may be experienced during which data will be lost. Investigate possible problems with the SWI/Combined Controller.

FRM163: UPDATE CHANNEL RCVR REAL TIME OVERRUN ENCOUNTERED

Explanation The capacity of the input buffer of the receiving system controller was exceeded. The update channel stops handling data and is reinitialized. Data was lost.

Action The system should recover automatically. If the problem persists, investigate possible problems with the SWI/Combined Controller.

FRM164: Update Channel Rcvr Real Time Overrun Condition Cleared

Explanation The receiving system controller adjusted the rate at which it empties its update channel input buffer to avoid an overrun condition. Normal update channel operation is resumed.

Action None required.

FRM165: CP XMIT REAL TIME OVERRUN PENDING

Explanation The device transmitting call processing information over the channel between the SWI and the NBC is sending data at a rate that exceeds the capacity of the receiving input buffer. The system controller is transmitting faster than the NBC can process the data. No immediate effect. If the problem persists, an overrun condition may be experienced during which data will be lost. Call processing may be disrupted or delayed.

Action The system should recover automatically. If the problem persists, investigate possible problems with the SWI/Combined Controller or NBC.

FRM166: CP XMIT REAL TIME OVERRUN ENCOUNTERED

Explanation The device transmitting call processing data over the channel between the SWI and NBC exceeded the input buffer capacity of the receiving device. Some data may be lost. Normal operation resumes when the receiving device is able to handle all data in a timely fashion. May be followed by a reset.

Action The system should recover automatically. If the problem persists, investigate possible problems with the SWI/Combined Controller or NBC.

FRM167: CP RCVR REAL TIME OVERRUN PENDING

Explanation The device receiving call processing data over the channel between the SWI and NBC is indicating it is not emptying its input buffer quickly enough. No data was lost. If the condition persists, an overrun condition may be experienced during which data will be lost. Call processing may be disrupted or delayed.

Action None required.

FRM168: CP RCVR REAL TIME OVERRUN ENCOUNTERED

Explanation The capacity of the input buffer of the device receiving data over the channel between the SWI and NBC was exceeded. Some data may be lost. Normal operation resumes when the receiving device can handle all incoming data in a timely fashion. May be followed by a Phase 4 reset. Some data may be lost. Normal operation resumes when the receiving device can handle all incoming data in a timely fashion. May be followed by a reset.

Action The system should recover automatically. If the problem persists, investigate possible problems with the SWI/Combined Controller or NBC.

FRM169: CP Rcvr Real Time Overrun Condition Cleared

Explanation The receiving SWI or NBC adjusted the rate at which it empties its update channel input buffer so as to avoid an overrun condition. Normal data channel operation is resumed.

Action None required.

`FRM176: Rack X, Level X, Restored`

Explanation The specified rack level previously out-of-service due to BRC failure was restored. Operation of the cards in the affected subrack should be restored.

Action None required.

`FRM177: RACK X, LEVEL X, out of service`

Explanation The specified rack level is out-of-service due to a BRC failure. Operation of the cards in the affected subrack will stop.

Action Investigate possible BRC or cable problems. Replace the BRC.

`FRM178: BRC SWITCHOVER FAILURE RLS X,X,XX – REDUNDANT BRC'S NOT IN STANDBY`

Explanation An attempt to switch to the redundant BRC pair failed because the pair was not in standby status. There is a possible loss of call processing in the affected subrack.

Action Investigate the reason for the standby BRC pair not in standby status. Replace BRC cards as required.

`FRM179: INTERNAL PORT CARD ERROR RLS X,X,XX CODE primary, secondary`

Explanation An internal port card detected a message parsing error. The card was unable to parse a message received over the communications bus. The message is discarded.

Action Contact Cisco Systems TAC.

`FRM180: Port Sup. Error xx – RLSP X,X,XX,XX`

Explanation An outgoing port that was in the CP_WANS state and in a conference received an outgoing supervision error. A Outgoing Port Change of State ($DA) report is sent to the host.

Action None required.

`FRM181: Bad OGT Links – RLSP X,X,XX,XX`

Explanation The system received answer supervision from the outgoing port at the address indicated, but the port is not linked into a call or conference. This indicates internal processing problems. The links for this port are cleaned up at this time.

Action None required.

FRM182: Outpulsing In Incorrect State – RLSP X,X,XX,XX

Explanation During outpulse rule processing, the port at the address indicated was found not to be in the correct state (CP_OUTPULSE). This is indicative of internal processing problems. The port is left in its current state.

Action Problems of this type can often be traced back to the sequence of host commands sent to the switch. If the port was previously idled for any reason and the host system was not updated with that status, it may try to command outpulsing operations on an idle port. System Host and/or NBC tracing analyzed by the Cisco Systems TAC will provide valuable information.

FRM183: Outpulsing Without OPC – RLSP X,X,XX,XX

Explanation During outpulse rule processing, the port at the address indicated was found not to be linked to an outpulsing channel. This is indicative of internal processing problems. No outpulsing can occur on the designated port.

Action Problems of this type can often be traced back to the sequence of host commands sent to the switch. If the correct commands were not sent by the host system for beginning an outpulsing scenario, the port may not be linked to an outpulsing channel. System Host and/or NBC tracing analyzed by the Cisco Systems TAC will provide valuable information.

FRM184: DVC/IPRC Port Taken Out of Service – RLSP X,X,XX,XX

Explanation The DVC or IPRC port at the location indicated was taken out-of-service. The host is notified by a System Port Status ($D3) report. The bad port is automatically replaced with another DVC or IPRC port.

Action If the problem persists, replace the DVC/IPRC.

FRM185: Outpulsing Without CPA – RLSP X,X,XX,XX

Explanation During outpulse rule processing, the port at the address indicated was not linked to a CPA port. No call progress tones or supervision events could be detected. Indicates internal processing problems. The port is left in CP_SETUP/CP_ATT state.

Action This problem could be related to the command structure and supervision template construction and identification within the command. System Host and/or NBC tracing analyzed by the Cisco Systems TAC can provide valuable information.

FRM186: CPA Card Without Supervision Templates – RLSP X,X,XX,XX

Explanation The CPA port at the address indicated was allocated to a call, but no answer supervision templates were downloaded to the CPA card. This is indicative of internal processing problems. No answer supervision can occur on the port.

Action Answer supervision templates are downloaded to the CPA during initialization. Ensure that the CPA is active. Reset the CPA and observe system console messages for indications that the templates are downloaded. If the problem persists, replace the CPA.

`FRM187: No Outpulsing Mode Selected Outpulse Rule X – RLSP X,X`

Explanation In the Outpulse Rule X, the outpulse mode is not selected prior to outpulsing of the digits. Before outpulsing digits, select the mode as DTMF, MF MRCR2, tone or dial pulse mode. Outpulsing will not occur on the selected port. The call will fail.

Action This problem is related to outpulse rule construction. Examine the rule for proper token sequence.

`FRM 190: IPRC Prompt Verification Error – RLS X,X,X`

Explanation The IPRC detected the corruption of one or more prompts. The IPRC will be unable to play prompts.

Action Reload the IPRC with a new copy of the prompt library. If the problem persists, replace the IPRC.

`FRM200: DRC-2 Internal Error – RLS – Error Code X`

Explanation The DRC card with the rack, level, slot (RLS) indicated, has reported an internal run-time error. The DRC cannot collect DTMF digits.

Action The error code in the message should be forwarded to the Cisco Systems TAC. If the problem persists, replace the DRC.

`FRM210: Start Record Pool Exhaust Cleared`

Explanation There were three successful consecutive allocations since a pool exhaust condition occurred.

Action None required.

`FRM211: End Record Pool Exhaust Cleared`

Explanation There were three successful consecutive allocations since a pool exhaust condition occurred.

Action None required.

`FRM212: CARD OOS: ERROR THRESHOLD EXCEEDED – RLS X,X,XX (CARD ALRM SET)`

Explanation The card at the indicated address exceeded the 25 errors per day threshold. The card is reset and placed out-of-service.

Action This type of error may indicate a bad card. Replace the designated card.

`FRM220: Download Aborted on SBY System`

Explanation A download was being done when the system changed to standby. The download is aborted and restarted on the new active system controller.

Action Identify the reason for transition to standby.

`FRM221: Download Aborted – RLS X,X,XX,XX In Incorrect State`

Explanation While the system software was changing the state of the 4xT1 or 4xE1 card span from O to A, the system software determined that the span needed a redownload of the 4xT1.dwn or 4xE1.dwn file. The redownload has been aborted, and the span has been put into state M.

Action To initiate the redownload and to get this span active again, perform the following steps:

a. Change the state of each span on this card to O.

b. Change the state of the troublesome span from O to A (the download will take place).

c. If applicable, change the state of the remaining spans from O to A.

`FRM222: Phase 3 – No Cards Requesting Download`

Explanation No broadcast download was performed. The destination cards have either not come into service or already have the correct version/revision of the download file in memory.

Action None required.

`FRM223: Download Aborted – No Broadcast Pending in Queue`

Explanation A broadcast download had been queued, but there are no cards of that broadcast type currently in service. The download was aborted.

Action None required.

`FRM224: Download Aborted – File Checksum Error – Type X, Dwnld Addr nn`

Explanation During the downloading to the card at the specified address, a file checksum error was detected and the download sequence aborted. The card will remain out-of-service pending a proper download.

Action Reload the download file onto the hard disk and attempt the download again. If the problem persists, forward the error message information to the Cisco Systems TAC for analysis.

`FRM225: [Filename] Download – XX Bytes In File`

Explanation Indicates the number of bytes the download file occupies on the hard disk.

Action None required.

```
FRM226: [Filename] Download XX Percent Complete
```

Explanation Indicates the status of the file being read from the hard disk and downloaded to the destination card(s).

Action None required.

```
FRM227: Download Aborted Due to $09 Timeout
```

Explanation The application code download was aborted because the $09 message was not received from the card to be downloaded within the required time after sending $52 message to it. The download is aborted. The card remains out-of-service.

Action Reinitialize the card. If the problem persists, replace the affected card.

```
FRM230: Phase 3 – (DTMF, IPRC, or PRI/N) Download Complete
```

Explanation The application code was broadcast to all in-service DTMFs, IPRCs, or PRI/Ns in the system.

Action None required.

```
FRM231: (DTMF, IPRC, or PRI/N) Download Complete – RLS X,X,XX
```

Explanation The application code was downloaded to the card in the slot location specified in the message. A single card download occurs whenever one of the cards in the message is removed and replaced in a subrack.

Action None required.

```
FRM232: Starting (DTMF, IPRC, or PRI/N) Application Download
```

Explanation At this point in a system restart, the application for the card in the message is being broadcast to all in-service cards of that type in the system. This message is also used to indicate that a directed download to a DTMF, IPRC, or PRI/N has started.

Action None required.

```
FRM234: IPRC Download Did Not Reach Completion
```

Explanation The download of application code from the hard disk to the IPRCs was abnormally interrupted. A minor system alarm was set. A previous FRM message should appear in the log showing the aborted download. The download is aborted. The card remains out-of-service.

Action Reinitialize the card. If the problem persists, replace the IPRC.

FRM239: AUTO MAINT. BUSY ERROR THRESHOLD REACHED R,L,S,P X,X,XX,XX

Explanation The port specified exceeded the maximum number of outgoing supervision errors given to its resource group. The port is placed in maintenance mode. Call processing on the affected port is interrupted while in maintenance mode.

Action Investigate the reason for the outgoing supervision errors. If the problem persists, replace the affected card.

FRM240: Phase 3 – (CPA, DTMF, IPRC, or PRI/N) Download Complete

Explanation The application was broadcast to all in-service cards that appear in the message in the system.

Action None required.

FRM241: (CPA, DTMF, IPRC, or PRI/N) Download Complete – RLS X,X,XX

Explanation The application was downloaded to the card in the slot location specified in the message. A single card download occurs whenever one of these cards is removed and replaced in a subrack.

Action None required.

FRM242: Starting (CPA, DTMF, IPRC, or PRI/N) Download Application

Explanation At this point in a system restart, the application is being broadcast to all in-service cards that appear in the message in the system. This message also indicates a direct download to one of these cards has started.

Action None required.

FRM244: (CPA, DTMF, IPRC, or PRI/N) Download Did Not Reach Completion

Explanation The application download from the hard disk to the cards in the message was abnormally interrupted. A system alarm was set. A previous FRM message should appear in the log showing the download aborted. The download to the identified card did not complete. The card remains out-of-service.

Action Reinitialize the card to begin a new download attempt. If the problem persists, replace the card.

FRM246: CPA RECEIVER POOL EXHAUSTED

Explanation There is no CPA receiver circuit available to service an incoming call. The system is unable to hunt an idle CPA receiver port. The command (if any) is returned to the host with a network status byte value of $3A. If the condition is encountered in outpulse rule processing, the rule is aborted. The host receives a Resource Limitation ($D6) report.

Action Add more CPA ports to the CPA resource group. If heavy call volume caused the pool exhaustion, wait for call volume to be reduced.

```
FRM247: CPA CARD OOS – RLS X,X,XX (CARD ALRM SET)
```

Explanation The specified card failed to respond correctly on five successive polling attempts by the NBC and is thus considered out-of-service or was removed from service via system administration. The system issues a directed reset of the CPA in the slot number identified in the message. A card alarm was set. CPA error codes are described in Table 5-1.

Table 5-1 CPA Error Codes

Code	Meaning
40	—
43	Memory test failure
44	CPA previous command not released
49	Base address timeout
CA	DSP PIO-register error

Action Reinitialize the card. If the problem persists, replace the CPA card.

```
FRM248: CPA Internal Error – RLS X,X,XX – ERROR CODE NN
```

Explanation An error was detected in the CPA at the specified location. Refer to Table 5-1 for the CPA error codes. The CPA tries to restart the application; if the restart fails, then the system controller card is reset by the system controller.

Action The error code is useful to Cisco Systems TAC for identifying the cause of the fault. Contact Cisco Systems TAC. If the problem persists, replace the CPA card.

```
FRM249: Supervision Template Download Pending On CPA – RLS X,X,XX
```

Explanation Updated supervision templates are being downloaded to all CPA cards in the system during a dynamic download. The CPA at the address specified is just coming into service. This CPA receives the template download once the dynamic download to the other CPAs is completed.

Action None required.

```
FRM250: Supervision Template Download Timeout On CPA – RLS X,X,XX
```

Explanation The system failed to dynamically download supervision templates to the CPA card at the address specified within 15 seconds after the card came into service. The download did not occur. The card remains out-of-service.

Action Reinitialize the card. If the problem persists, replace the CPA.

FRM251: Invalid Supervision Event Reported – CPA RLSP X,X,XX,XX

Explanation The CPA port at the address specified detected a supervision event other than dial tone, ringback, busy, reorder, SIT tones, pager cue tone, ringback cessation, voice detection or voice cessation. The call may or may not fail due to supervision failure.

Action Identify what the expected supervision event is and compare that to the actual event being detected. If a valid event is experiencing some type of audible distortion, it can be misrepresented and not detected as expected. Forward the information to the Cisco Systems TAC for analysis.

FRM252: Supervision Template Download Aborted On CPA – RLS X,X,XX

Explanation Supervision templates are being downloaded to all CPA cards in the system. Because the CPA at the address specified is no longer in maintenance mode (card went out-of-service or a system switchover is underway), the download was aborted.

Action Identify the cause of the specified CPA no longer being in maintenance mode.

FRM265: Phase 3 – Network Side Download Complete

Explanation The network side download is complete. The download complete message is generated by the NBC3 card.

Action None required.

FRM280: ISDN - PRI Card Restored -- RLS [x x x-x-x] (CARD ALRM CLRD)

Explanation The out-of-service condition detected for the ICC ISDN span at the location specified in the message has been cleared. The span is in maintenance mode.

Action None required.

FRM281: ISDN - PRI Card OOS -- RLS [x x x-x-x] (CARD ALRM SET)

Explanation The specified ICC ISDN span has failed to respond correctly on five successive polling attempts by the NBC and is thus considered out-of-service or has been removed from service via system administration. The system issues a directed reset of the span at this location. A card alarm has been set. Any calls involving this span are torn down. The host is sent a System Card Status ($D9) report.

Action Identify the cause of the span being out-of-service. If the problem persists, replace the PRI card.

FRM282: ISDN - PRI INTERNAL ERROR -- RLS [x x x-x-x], CODE xx

Explanation An internal processing error has been detected for the specified ICC ISDN span. The type of error is indicated by the code value (xx). Call processing may be interrupted or delayed.

Action Make a notation of the code value (xx) and contact the Cisco Systems TAC.

FRM283: ISDN - PRI ERROR THRESHOLD EXCEEDED -- RLS [x x x-x-x] (CARD ALRM SET)

Explanation The threshold of internal errors reported for this span by a previous FRM282 message has been exceeded. The specified span is reset and allowed to come back into service. The span will be out-of-service until the reset is completed.

Action None required.

FRM284: ISDN - PRI OUT OF FRAME Detected -- RLS [x x x-x-x] (CARD ALRM SET)

Explanation An out-of-frame condition has been detected for the ICC ISDN span at the location specified in the message. The span is placed into maintenance mode. Any active calls are torn down. When the condition is cleared, the span will be restored automatically.

Action If the problem persists, investigate the PRI span. Replace the PRI card as necessary.

FRM285: ISDN - PRI CARRIER ALARM -- RLS [x x x-x-x] (CARD ALRM SET)

Explanation The system has detected a loss of carrier for the ICC ISDN span whose location is specified in the message. The span is placed into maintenance mode and a carrier lost card alarm is set. Any active calls are torn down.

Action Identify the cause of the carrier loss. If the path is good, replace the PRI card.

FRM286: ISDN - PRI REMOTE ALARM -- RLS [x x x-x-x] (CARD ALRM SET)

Explanation The system has detected a loss of carrier signal from the far end of the span connected to the ICC ISDN span at the location specified in the message. The span is placed into maintenance mode and a remote alarm is set.

Action Identify the cause of the loss of outgoing carrier signal. If the problem persists, replace the PRI card.

FRM287: ISDN - PRI SLIP MAINTENANCE LIMIT REACHED -- RLS [x x x-x-x] (MIN ALRM SET)

Explanation The number of PRI slips counted exceeds the number specified for this span via the ICC ISDN Span Configuration screen. The slip maintenance limit alarm is set.

Action If the Manual Intervention feature is set to "Y", return the span to active by first setting it out-of-service, then active, through the system administration Card Maintenance screen. Otherwise the span returns to service automatically.

FRM288: ISDN - PRI OUT OF FRAME Cleared -- RLS [x x x-x-x] (CARD ALRM CLRD)

Explanation The out-of-frame (OOF) condition detected for the ICC ISDN span at the location specified in the message has been cleared. The card alarm has been cleared but the OOF threshold counter is not affected. This message does not print if the OOF maintenance limit has been reached. The host is sent a System Card Status ($D9) report.

Action If no other alarms are present, the span returns to active mode.

FRM289: ISDN - PRI CARRIER RESTORED -- RLS [x x x-x-x] (CARD ALRM CLRD)

Explanation The system has detected restoration of carrier for the ICC ISDN span whose location is specified in the message. If all other card alarms are clear, the span returns to Active Mode and the host is sent a System Card Status ($D9) report.

Action None required.

FRM290: ISDN - PRI REMOTE ALARM CLEAR -- RLS [x x x-x-x] (CARD ALRM CLRD)

Explanation The system has detected an Alarm Cleared signal from the far end of the span connected to the ICC ISDN span at the location specified in the message. If the carrier card alarm, slip maintenance limit, and OOF maintenance limit card alarms are clear, the span returns to active mode and the host is sent a System Card Status ($D9) report.

Action None required.

FRM291: ISDN - PRI INIT CODE XX -- RLS [x x x-x-x]

Explanation The system is unable to initialize the ICC ISDN span at the location specified in the message. The reason for this error is indicated by the code value (XX). The span remains out-of-service.

Action Make a notation of the code value (XX) and contact the Cisco Systems TAC.

FRM292: ISDN - PRI OOF MAINTENANCE LIMIT REACHED -- RLS [x x x-x-x] (MIN ALRM SET)

Explanation The system threshold limit for out-of-frame (OOF) occurrences has been exceeded by the ICC ISDN span at the location specified in the message. The span is placed into maintenance mode. If the span serves as the master timing link the system attempts to resynchronize itself to another incoming link or to the internal reference source. The span alarm for OOF maintenance limit remains set until the span is reset.

Action If the Manual Intervention feature is set to "Y", return the span to active by first setting it out-of-service, then active, through the system administration Card Maintenance screen. Otherwise the span returns to service when the condition clears. The OOF maintenance limit is specified on a per span basis via the ICC ISDN Span Configuration screen.

FRM293: ISDN -- PRI BPV Threshold Exceeded -- RLS (Card Alarm Set)

Explanation The span with the rack, level, slot (RLS) indicated has reported the error; bipolar violation limit (BVP) reached. BPV errors may cause noise on calls or possible call interruption.

Action Investigate the span path. Reset the span. If the problem persists, replace the PRI span card.

```
FRM294: ISDN -- PRI BPV Condition Cleared -- RLS (Card Alrm Clrd)
```

Explanation The span with the rack, level, slot (RLS) indicated has reported the error; bipolar violation limit alarm condition cleared.

Action None required.

```
FRM295: ISDN - PRI D-CHANNEL RELEASED -- RLS [x x x-x-x]
```

Explanation The D-channel for the ICC ISDN span specified in the message has been released from the far end. All calls are cleared and no new calls can be established on this span.

Action Investigate the cause of the release by the far end. Reset the span. If the problem persists, replace the card.

```
FRM296: ISDN -- PRI T309 EXPIRY -- RLS [x x x-x-x] (CARD ALRM SET)
```

Explanation Timer T309, the duration of which is determined by protocol, has expired prior to the establishment of the D-channel for the ICC ISDN span specified in the message. This is applicable to only those ICC ISDN spans which have the access type set to NETWORK. Timer T309 is fixed at 15 seconds for the TS014 protocol; timer T309 is fixed at 90 seconds for all other protocols. The span will remain out-of-service.

Action Investigate D-channel initialization. Coordination with the far end will be required. If the problem persists, replace the card.

```
FRM297: ISDN - PRI D-CHANNEL RESTORED -- RLS [x x x-x-x] (CARD ALRM CLRD)
```

Explanation The D-channel for the ICC ISDN span specified in the message has been restored from the far end. Normal call processing for the B-channels on this span is restored. The card alarm for this span is cleared.

Action None required.

```
FRM298: ISDN - PRI D-CHANNEL RESTART -- RLS [x x x-x-x] (CALLS ABORTED)
```

Explanation The D-channel for the ICC ISDN span specified in the message has been reset from the far end (interface RESTART received). All calls are cleared. New calls can be handled immediately following a reset.

Action If the problem persists, coordinate with the far end to determine why the D-channel is being reset. If the problem persists, replace the card.

```
FRM299: ISDN - NFAS Configuration Error RLS X X X-X Interface XX
```

Explanation An internal processing error has been detected for the specified span within an NFAS group. The information received from the network does not match the NFAS group's configuration. The span will remain out-of-service.

Action If this error occurs, contact the Cisco Systems TAC.

```
FRM300: ISDN - NFAS Incorrect Interface Specified
```

Explanation The channel ID for the interface specified within an ISDN message template or an ISDN Port Control ($49) host command is incorrect. The call will not be processed.

Action Investigate the cause of the incorrect interface specification. System host and/or NBC tracing analyzed by Cisco Systems TAC will be useful.

```
FRM301: ISDN- PRI Card Critical Error
```

Explanation An error has been detected on a ICC ISDN span. This is a critical alarm condition that may be escalated to a fatal condition. The span will remain out-of-service.

Action Reset the span. Observe normal initialization sequence. Verify proper signaling from the far end. If the problem persists, replace the card.

```
FRM302: ISDN - PRI Raw Data -- PC=XXXXXXX Error Mode=nn
```

Explanation An error has been detected on an ICC ISDN span. Call processing is interrupted. Normal call processing may resume.

Action Information useful to Cisco Systems TAC for identifying the cause of the fault is displayed in the message line. Contact the Cisco Systems TAC.

```
FRM303: ISDN -- NFAS Group X, Invalid States D1: [state name], D2: [state name],
Event [code]
```

Explanation An invalid state transition was attempted on the NFAS group specified. The span containing the in-service D-channel has been placed in out-of-service mode. The user must manually return this span to active via the Card Maintenance screen.

Action The message indicates the current states of the primary (D1) and backup (D2) D-channels, and the event that caused the invalid transition. Refer to Table 5-2 for event code descriptions.

```
FRM304: ISDN -- NFAS Group X, Invalid Event D1: [state name], D2: [state name],
Event [code]
```

Explanation An invalid event occurred involving the NFAS group specified. The span containing the in-service D-channel has been placed in out-of-service mode. The user must manually return this span to active via the Card Maintenance screen.

Action The message indicates the current states of the primary (D1) and backup (D2) D-channels, and the event that caused the invalid transition. Refer to Table 5-2 for event code descriptions.

Table 5-2 D-channel Event Codes for Messages FRM303 and FRM304

Code	Description
05	Manual switchover. The SWITCH command was submitted by the system administrator.
07	Timer T321 (40-second timer) expired; automatic switchover performed.
0A	Primary D-channel (D1) data link released.

Table 5-2 D-channel Event Codes for Messages FRM303 and FRM304 (continued)

Code	Description
0B	Backup D-channel (D2) data link released.
0C	Primary D-channel (D1) data link established.
0D	Backup D-channel (D2) data link established.
0E	Primary D-channel (D1) established.
0F	Backup D-channel (D2) established.
10	Primary D-channel (D1) placed in manual-out-of-service (MOOS) state. The MOOS command was submitted by the system administrator.
11	Backup D-channel (D2) placed in manual-out-of-service (MOOS) state. The MOOS command was submitted by the system administrator.
12	Primary D-channel (D1) activated. The ACTIVATE command was submitted by the system administrator.
13	Backup D-channel (D2) activated. The ACTIVATE command was submitted by the system administrate.
14	Primary D-channel (D1) ICC ISDN span failure.
15	Backup D-channel (D2) ICC ISDN span failure.

```
FRM305: ISDN -- NFAS Configuration Updated
```

Explanation Modifications to the NFAS group configuration were successfully stored in system memory.

Action None required.

```
FRM306: ISDN -- NFAS D-channel Switched Via Admin
```

Explanation A manual switchover was initiated by the system administrator (using the SWITCH command on the NFAS Group Configuration screen). The standby D-channel came into the in service state and now controls the NFAS group. The formerly active D-channel transitions to the out-of-service state.

Action None required.

```
FRM307: ISDN -- NFAS D-channel Set To MOOS State
```

Explanation The standby D-channel was placed into the manual out-of-service (MOOS) state by the system administrator (using the MOOS command on the NFAS Group Configuration screen). The channel remains in MOOS state until activated by the system administrator. D-channel backup is disabled while the standby channel is in MOOS state.

Action Set the channel to active using the system administration console.

```
FRM308: ISDN -- NFAS D-channel Taken Out of MOOS State
```

Explanation The system administrator activated the standby D-channel in manual out-of-service state (using the ACTIVATE command on the NFAS Group Configuration screen). The standby D-channel can now be established by either the far or near end.

Action None required.

```
FRM309: ISDN -- PRI AIS/BLUE ALARM DETECTED -- RLS [x x x-x-x] (CARD ALRM SET)
```

Explanation The AIS/BLUE alarm condition detected in the ICC ISDN span at the location specified in the message. The span is placed in maintenance mode. The blue alarm is set.

Action None required.

```
FRM310: ISDN -- PRI AIS/BLUE ALARM Cleared -- RLS [x x x-x-x] (CARD ALRM CLRD)
```

Explanation The AIS/BLUE alarm condition that was detected in the ICC ISDN span at the location specified in the message has been cleared. The host is sent a System Card Status ($D9) report.

Action None required.

```
FRM311: ISDN -- PRI CRC ERROR DETECTED -- RLS [x x x-x-x] (CARD ALRM SET)
```

Explanation The Cyclic Redundancy Check 4 (CRC4) error has been detected in the ICC ISDN span specified in the message. This is applicable to only ICC ISDN E1 spans. The CRC4 error is set for this span.

Action None required.

```
FRM312: ISDN -- PRI CRC ERROR Cleared -- RLS [x x x-x-x] (CARD ALRM CLRD)
```

Explanation The Cyclic Redundancy Check 4 (CRC4) error that was detected in the ICC ISDN span specified in the message has been cleared.

Action None required.

```
FRM320: Initiating Prompt Download – RLS X,X,X – SCSI Dev X
```

Explanation This message is issued when prompts are being downloaded to the specified IPRC. The SCSI device assigned to the IPRC is also specified.

Action None required.

`FRM321: Prompt Download Complete – RLS X,X,X`

Explanation Voice announcement data was downloaded to the IPRC in the slot location specified in the message.

Action None required.

`FRM322: Prompt Download Error – RLS X,X,X – SCSI Dev X`

Explanation The download of voice data from the hard disk to the IPRC was abnormally interrupted. A minor system alarm was set. A previous FRM message should appear in the log showing that the download aborted.

Action None required.

`FRM323: Prompt Upload Complete – RLS X,X,XX`

Explanation Prompt data was uploaded to the IPRC in the slot location specified in the message.

Action None required.

`FRM324: Prompt Upload Error – RLS X,X,XX`

Explanation The prompt data upload to the IPRC failed.

Action None required.

`FRM325: Error Removing IPRC From SCSI Bus – RLS X,X,XX – SCSI Dev XX`

Explanation The system was unable to release the IPRC from the SCSI bus after the IPRC was downloaded.

Action Reset the card.

`FRM326: Error Installing IPRC On SCSI Bus – RLS X,X,X – SCSI Dev X`

Explanation The system could not attach the specified IPRC card to the SCSI bus for prompt downloading.

Action Check to see that the SCSI extension is properly connected or that the SCSI extension cable is not faulty.

`FRM330: Token Not Valid For Outpulse Rule Execution`

Explanation The outpulse rule token specified is not valid for outpulse rule execution. This message indicates an internal processing error.

Action None required.

`FRM331: Token Not Valid For Outpulse Rule Execution`

Explanation The outpulse rule token specified is not valid for outpulse rule execution. This message indicates an internal processing error.

Action None required.

`FRM332: Token Not Valid For MFCR2 Mode`

Explanation The token specified is not valid for outpulse execution in MFCR2 mode.

Action None required.

`FRM333: Resource Could Not Be Allocated For Rule Execution`

Explanation The specified resource type could not be allocated to process the inpulse or outpulse rule. The resource allocation attempt is performed prior to the rule being started, so that the rule does not execute if the required resources cannot be allocated.

Action None required.

`FRM334: Invalid xxx Rule Token Identifier – xxx`

Explanation An invalid rule token was encountered during inpulse or outpulse rule execution. The rule itself was corrupted.

Action None required.

`FRM335: Invalid Rule Type Identifier`

Explanation An internal processing error or data corruption error occurred such that the rule processing cannot initiate rule processing.

Action None required.

`FRM340: Code Error – Used By Errmsg Subsystem`

Explanation Used for Code error in Error Subsystem.

Action None required.

```
FRM341: NBC Error – xxx – Detected Errors
```

```
FRM341: NBC Error Comm Bus Interf- DID err, 3 reset/polling cycles done
```

Explanation The first FRM341 error message indicates that the NBC3 reported an error occurring at the communication bus interface or system controller (SWI) interface. The second FRM341 error message indicates that a card is fully seated into the VCO/4K chassis backplane, but is not configured in the database.

Action The first FRM341 message requires no action. The second FRM 341 message requires you to either unseat the appropriate card, or configure it in the database.

```
FRM342: D+I Slip Limit Reached, RLSP x, x, xx, x
```

Explanation In DTE mode, the D+I card can detect slips on each port, and keeps track of the number of slips. A Slip Limit Reached report is generated when the count exceeds the slip threshold set in the Card Configuration screen.

Action None required.

```
FRM343: D+I Loss of Clock Failure RLSP x, x, xx, x
```

Explanation When the D+I card is selected to operate in DTE mode, the port may lose its transmit and receive clocks. When a Loss of Clock is detected on a port, a Loss of Clock Error is reported. There are no Loss of Clock events when the port is configured in DCE mode.

Action None required.

```
FRM350: Memory Test Failure RLS x,x,xx
```

Explanation A memory failure occurred during a diagnostics self-test.

Action Contact Cisco Systems TAC.

```
FRM351: Base Address Time Out – RLS x,x,xx
```

Explanation The base address timed-out during a diagnostics self-test.

Action Contact Cisco Systems TAC.

```
FRM352: Internal Communications Failure – RLS x,x,xx
```

Explanation An internal communications failure occurred at RLS x,x,xx location, in a 4xT1 or 4xE1 card.

Action None required.

`FRM353: Unknown Failure – RLS x,x,xx`

Explanation An unknown failure occurred during a diagnostics self test.

Action Contact Cisco Systems TAC.

`FRM354: Application Checksum Failure – RLS x,x,x`

Explanation Application checksum failure reported by the 4xT1 or 4xE1 card.

Action None required.

`FRM355: Download Start Location Error – RLS x,x,x`

Explanation Download start location error reported by the 4xT1 or 4xE1 card.

Action None required.

`FRM356: Download Location Error – RLS x,x,x`

Explanation Download location error reported by the 4xT1 or 4xE1 card.

Action None required.

`FRM357: Board Failure Detected – RLS x,x,x`

Explanation Board failure error reported by the 4xT1 or 4xE1 card.

Action None required.

`FRM360: Comm Bus Report Nacked – RLS x,x,xx`

Explanation The communications bus report was not acknowledged.

Action If this error persists, contact Cisco Systems TAC.

`FRM361: Comm Bus Transmit Buffer Full – RLS x,x,xx`

Explanation The communications bus transmit buffer is full.

Action If this error persists, contact Cisco Systems TAC.

`FRM362: Comm Bus Receive Buffer Full – RLS x,x,xx`

Explanation The communications bus receive buffer is full.

Action If this error persists, contact Cisco Systems TAC.

`FRM363: Internal Communication Time Out – RLS x,x,xx`

Explanation The internal communication timed out.

Action If this error persists, contact Cisco Systems TAC.

`FRM364: Internal Communication Failure – RLS x,x,xx`

Explanation An internal communication failure occurred.

Action If this error persists, contact Cisco Systems TAC.

`FRM365: Internal Broadcast Failure – RLS x,x,xx`

Explanation An internal broadcast failure occurred.

Action If this error persists, contact Cisco Systems TAC.

`FRM366: Internal Command Nacked – RLS x,x,x`

Explanation An internal command was not acknowledged.

Action If this error persists, contact Cisco Systems TAC.

`FRM367: Internal Report Nacked – RLS x,x,xx`

Explanation An internal report was not acknowledged.

Action If this error persists, contact Cisco Systems TAC.

`FRM368: Internal Transmit Buffer Full – RLS x,x,xx`

Explanation The internal transmit buffer is full.

Action If this error persists, contact Cisco Systems TAC.

`FRM369: Internal Receive Buffer Full – RLS x,x,xx`

Explanation The internal receive buffer is full.

Action If this error persists, contact Cisco Systems TAC.

`FRM370: Unexpected Report From – RLS x,x,xx`

Explanation There is an unexpected report.

Action If this error persists, contact Cisco Systems TAC.

`FRM371: Message From Card Not In Database – RLS x,x,x`

Explanation An NBC3 message has come from a card which is not defined in the database.

Action None required.

`FRM372: Internal Empty Message Error – RLS x,x,x`

Explanation An empty message is received from the card specified by RLS x,x,x.

Action None required.

`FRM373: Internal Message Length Error – RLS x,x,x`

Explanation Internal message length error reported by the card specified by RLS x,x,x.

Action None required.

`FRM500: N/A Event Set For – ALMxxx: [alarm description]`

Explanation The system registered the nonalarmed event for the specified alarm condition. This condition does not affect system processing.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

`FRM501: Aux-1 Alarm Set For – ALMxxx: [alarm description]`

Explanation The host set an Auxiliary 1 alarm for the specified alarm condition using the Set/Reset Host Alarms ($C0 03) command.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

`FRM502: Aux-2 Alarm Set For – ALMxxx: [alarm description]`

Explanation The host set an Auxiliary 2 alarm for the specified condition using the Set/Reset Host Alarms ($C0 03) command.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

`FRM503: Minor Alarm Set For – ALMxxx: [alarm description]`

Explanation The system set a minor alarm for the specified alarm condition. This condition does not have a serious impact on system operation.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

FRM504: Major Alarm Set For – ALMxxx: [alarm description]

Explanation The system set a major alarm for the specified alarm condition. This condition is service affecting, although not as urgent as a critical alarm. Immediate corrective action is recommended.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

FRM505: Critical Alarm Set For – ALMxxx: [alarm description]

Explanation The system set a critical alarm for the specified alarm condition. This condition is severe and service affecting, and is likely to be escalated to a fatal condition.

Action Immediate corrective action is required. Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

FRM506: Fatal Processing Fault Due To – ALMxxx: [alarm description]

Explanation The system encountered a fatal condition which caused a system reset or control switchover in a redundant system.

Action Immediate corrective action is required. Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

FRM507: N/A Event Clear For – ALMxxx: [alarm description]

Explanation The system cleared the nonalarmed event for the specified alarm condition.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

FRM508: Aux-1 Alarm Clear For – ALMxxx: [alarm description]

Explanation The host cleared the Auxiliary 1 alarm for the specified alarm condition using the Set/Reset Host Alarms ($C0 03) command.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

FRM509: Aux-2 Alarm Clear For – ALMxxx: [alarm description]

Explanation The host cleared the Auxiliary 2 alarm for the specified alarm condition using the Set/Reset Host Alarms ($C0 03) command.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

`FRM510: Minor Alarm Clear For – ALMxxx: [alarm description]`

Explanation The system cleared the minor alarm for the specified alarm condition.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

`FRM511: Major Alarm Clear For – ALMxxx: [alarm description]`

Explanation The system cleared the major alarm for the specified alarm condition.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

`FRM512: Critical Alarm Clear For – ALMxxx: [alarm description]`

Explanation The system cleared the critical alarm for the specified alarm condition.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

`FRM513: Minor Alarm Changed To Major For – ALMxxx: [alarm description]`

Explanation The system escalated the minor alarm previously set for the specified alarm condition to a major alarm. This condition is now service affecting, although not as urgent as a critical alarm.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

`FRM514: Minor Alarm Changed To Critical For – ALMxxx: [alarm description]`

Explanation The system escalated the minor alarm previously set for the specified alarm condition to a critical alarm. This condition is now severe and service affecting, and is likely to be escalated again to a fatal condition.

Action Immediate corrective action is required. Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

`FRM515: Minor Alarm Changed To Fatal For – ALMxxx: [alarm description]`

Explanation The system escalated the minor alarm previously set for the specified alarm condition to a fatal alarm. This condition caused a system reset or control switchover in a redundant system.

Action Immediate corrective action is required. Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

FRM516: Major Alarm Changed To Minor For – ALMxxx: [alarm description]

Explanation The system downgraded the major alarm previously set for the specified alarm condition to a minor alarm. This condition does not have a serious impact on system operation.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

FRM517: Major Alarm Changed To Critical For – ALMxxx: [alarm description]

Explanation The system escalated the major alarm previously set for the specified alarm condition to a critical alarm. This condition is now severe and service affecting, and is likely to be escalated again to a fatal condition.

Action Immediate corrective action is required. Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

FRM518: Major Alarm Changed To Fatal For – ALMxxx: [alarm description]

Explanation The system escalated the major alarm previously set for the specified alarm condition to a fatal alarm. This condition caused a system reset or control switchover in a redundant system.

Action Immediate corrective action is required. Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

FRM519: Critical Alarm Changed To Minor For – ALMxxx: [alarm description]

Explanation The system downgraded the critical alarm previously set for the specified alarm condition to a minor alarm. This condition no longer a serious impact on system operation.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

FRM520: Critical Alarm Changed To Major For – ALMxxx: [alarm description]

Explanation The system downgraded the critical alarm previously set for the specified alarm condition to a major alarm. This condition is still service affecting, but not as urgent.

Action Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

FRM521: Critical Alarm Changed To Fatal For – ALMxxx: [alarm description]

Explanation The system escalated the critical alarm previously set for the specified alarm condition to a fatal alarm. This condition caused a system reset or control switchover in a redundant system.

Action Immediate corrective action is required. Make a notation of the alarm condition message specified in the message and refer to Chapter 1, “Alarm Condition Messages” for action instructions.

`FRM522: Queue Threshold Exceeded On: [name] Queue`

Explanation An internal memory queue overrun condition is pending, but at this point no data was lost. This condition indicates excessive message traffic due to high call volume or database changes involving cards with a large number of ports (such as the DCC).

Action None required.

`FRM523: Queue Overflow (Data Lost) On: [name] Queue`

Explanation An internal memory queue overrun occurred; some data was lost. Typically, this condition only occurs during periods of high call processing volume. This message is preceded by an FRM522 message warning of the imminent condition.

Action None required.

`FRM524: Queue Threshold/Overflow Cleared On: [name] Queue`

Explanation An internal memory queue overrun condition cleared. The amount of data in the queue dropped below the threshold level.

Action None required.

`FRM525: Memory Allocation Failure In Sub-System: [subsystem name]`

Explanation A dynamic memory allocation attempt failed in the processing subsystem specified. Typically, this condition only occurs during periods of high call processing volume. Some data may be lost as a result of this condition.

Action None required.

`FRM526: Memory Allocation Cleared In Sub-System: [subsystem name]`

Explanation The dynamic memory allocation failure condition reported in a preceding FRM525 message cleared in the processing subsystem specified.

Action None required.

`FRM527: Audible Alarm Cutoff Performed By System Administrator`

Explanation The external audible alarms connected to the Alarm Arbiter Card (AAC) have been disabled using the System Alarms Display screen. The alarm LEDs on the front panel of the AAC are also disabled.

Action None required.

`FRM528: System Shutdown Performed By System Administrator`

Explanation The system was shut down using the Maintenance menu. The system closed all open files, terminated host communication, and reset the system controller.

Action None required.

`FRM529: Insufficient disk space in case of crash (n bytes free)`

Explanation There is not enough space on the disk (in the C:/ directory) to write a core dump file. This message is reported only when the system is initialized. The current number of bytes that are available on the C: drive is indicated by n.

Action None required.

`FRM530: Unable to open a Core File - Cause=xxx PC=yyy`

Explanation The system could not open a file on the C: drive to write a core dump. The three-digit string xxx indicates the cause of the problem and yyy is the program counter's contents.

Action None required.

`FRM531: Core File Created - Cause=xxx PC=yyy`

Explanation The system created and wrote a core file (named core1), in the C:/ directory. The three-digit string xxx indicates the problem that initiated the core dump, and yyy is the program counter's contents.

Action None required.

`FRM532: Core File Created WITH ERRORS - Cause=xxx PC=yyy`

Explanation The system created a core file (named core1), in the C:/ directory, but there are errors in the file. The three-digit string xxx indicates the cause of the problem and yyy is the program counter's contents.

Action None required.