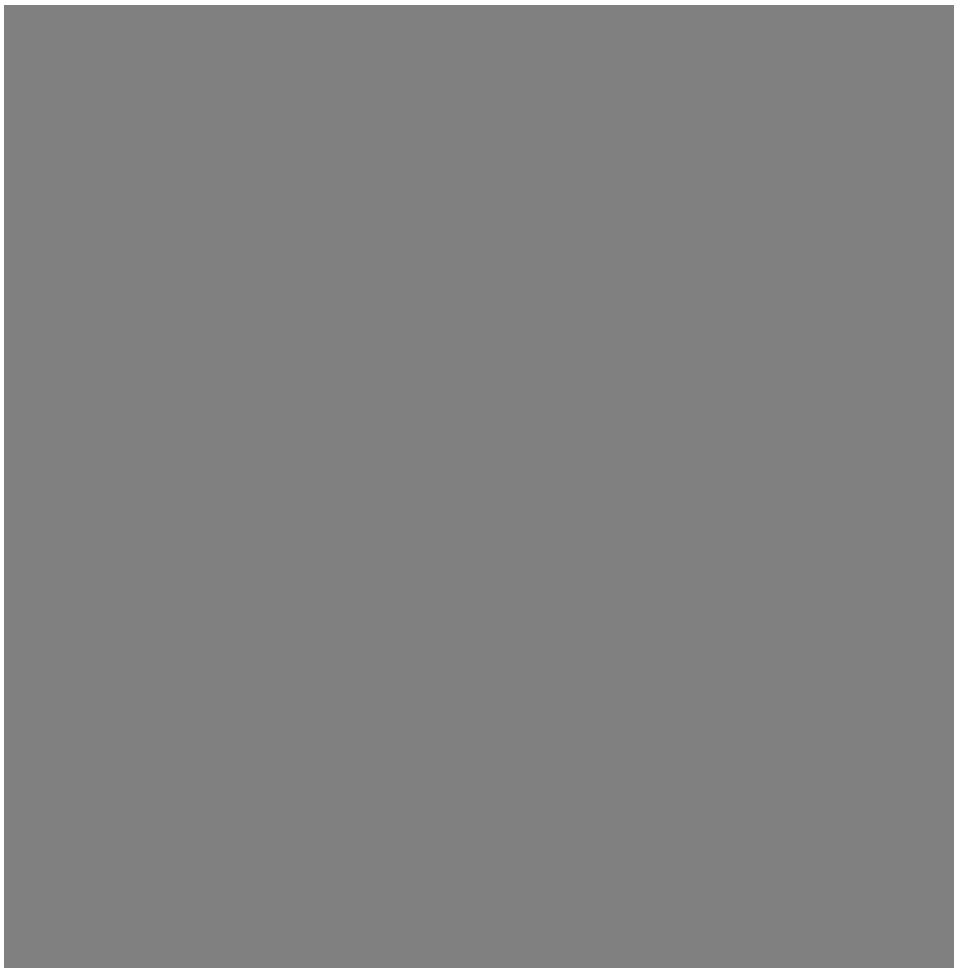
Network Operations Systems

Business Network Management

BNM-Specific Log Messages and Maintenance

NSR28 and up March 1991 Standard



northern telecom

Network Operations Systems

Business Network Management

BNM-Specific Log Messages and Maintenance

Publication number: Appendix 1 to 450-1021-511
Document Status: Standard
Document release: NSR28 and up
Date: March, 1991

Contents

1. Introduction

Structure of this publication

This appendix describes the alarm indications and log messages that are produced by the DNC*-500, and DNC-50 systems that operate with Business Network Management (BNM). It consists of:

(a) descriptions of the Log Subsystem and the Alarm Subsystem, as well as their message formats, in Chapter 1.

(b) interpretations and explanations for alarm and log messages, in Chapters 2 through 6. (Subsystems are listed in alphabetical order. The subsystems are divided into five arbitrary chapters to facilitate manageability.)

(c) actions to be taken for clearing faults specific to BNM, in Chapter 7.

(d) a list of the abbreviations that are used in this appendix.

If a message is not found in its designated table in Chapters 2 through 5, look in the table for “Common Logs” in Chapter 6.

If a message is generated from the Dynamic Network Controller (DNC) but is not covered in this manual, refer to the DNC Base Log Messages Manual 450-1021-511 (that is, the main section to this Appendix).

This appendix contains some procedures to isolate faults that are specific to BNM, and to clear them. It also refers the user to 450-1011-301 for fault clearing procedures that are basic to DNC.

Change history

This section lists the important changes that affect this publication. They are arranged by Network Software Release (NSR), in a descending order, starting with the current release.

* DNC is a trademark of Northern Telecom.

NSR32

The changes introduced by NSR32 are:

- the addition of a new log in the File Manager Subsystem to include a warning message about outdated CMAP directories.
- the addition of a new section containing logs for DMS MAP Passthru.

NSR28

The changes introduced by NSR28 are:

- the dividing of the log messages chapter into five arbitrary chapters to facilitate better manageability.
- the addition of new logs generated by the Service Order subsystem due to a modification to the Service Order Processor (SOP).
- the addition of new logs generated by the Data Spooling subsystems.
- the addition of logs generated by the following SPP-related subsystems: SPP Facility Mapping Mgr, SPP Scheduler, SPP Log Interface, and SPP SMDR Decoder.
- The addition of two new logs generated by the Database Uploading subsystem.

NSR27

The changes introduced by NSR27 are:

- the addition of logs generated by the Disk Utilization and Monitor subsystem.
- the addition of two new logs generated by the Database Uploading subsystem.
- a modification to an existing log generated by the Network Admin Manager subsystem.
- the addition of one new log generated by the Service Order subsystem.

Log subsystem description

The DNC logs are administered by the log subsystem. When a Program Resource Unit (PRU) completes any significant action, such as starting or terminating data transfer, it notifies the log subsystem. The log subsystem then generates a notification message. Significant actions include:

(a) initiation or termination of jobs

(b) failure of a process

(c) error reports from the file system

(d) progress of file collection in data collectors

Notification messages are stored in a circular file on the DNC hard disk. This file is known as the log history file. The file holds from 200 to 300 messages, but can be adjusted by Northern Telecom (NT) to suit customer requirements. The most recent messages overwrite the oldest messages when the file becomes full.

Severity. Log messages are graded according to the extent to which system operation is affected by the event generating the message. There are 16 levels of severity of log messages. The top three, critical, major and minor, are integrated into the alarm system. The severity of each message is printed as part of the message.

Display. As each log message is generated, it is displayed on the two notification lines at the top of the M4000 type or VT100 type terminal. The next log message that is generated overwrites the existing log message on these lines.

History File Access. Users can also display log messages from the log history file. Through menu selection, a terminal user can bring up a form that shows the last few log messages by header line. The user can scroll forward or backward, or select a message to be displayed in detail. The detailed message is in the same format as it would appear on the printer.

Search. Other terminal functions include the ability to list a subset of the log messages, with the search keyed on one or more fields. These fields are specified by way of search form, called up from the display form.

Print. To print log messages, a user can call up a print form and request a printout of messages keyed to specified fields. The print form is called up from the display form.

Data-Voice System (DVS) Base logs are incorporated in the DNC-Base log system. The BNM log system accepts logs that are generated by the BNM application, as well as the DNC-Base logs, and treats them as one messaging system for output to the printer.

The printer on which logs are output is set by the Printer Management feature of DNC Base (see 450-1011-301 for details).

Alarm subsystem description

The alarm subsystem allows fault conditions to be recognized within the system, and audible and visible indicators to be activated. The alarm severity levels are, from highest to lowest: critical, major, and minor. Conditions that can generate alarms include:

(a) ***Changes of State.*** If a Shared Resource Unit (SRU), Program Resource Unit (PRU), or Remote Resource Unit (RRU) changes its state from working to faulty, an alarm message is generated. A transition from working to faulty indicates a fault, while a transition from loading to working may indicate recovery from a fault.

(b) ***Disk Query.*** Every minute, the alarm subsystem queries the amount of free space on each hard disk. If the free space threshold is exceeded, an alarm is generated. The free space threshold and query frequency are adjustable by NT.

(c) ***Applications.*** Any application program may trigger an alarm. For example, if a data collector detects a faulty X.25 link, it can generate an alarm.

(d) ***Log Messages.*** Any log message of critical, major, or minor severity activates an alarm.

(e) ***Remote Alarms.*** Remote alarm signals may be hardwired into the Alarm Interface Unit (ALIU). The ALIU allows the inputs to be detected by the alarm subsystem. Currently, alarm inputs are provided for fans, power, and auxiliary customer-defined alarms.

The alarm subsystem is closely integrated with the log subsystem. Any event that might compromise the operation of the system raises a log message of critical, major, or minor severity. Any log message of these three severity classes generates an identical alarm message. However, the alarm message is stored in the alarm history file instead of the log history file.

Terminal Display. As with log messages, alarm messages are displayed on the two notification lines at the top of the M4000 type terminal or VT100 type terminal. The next alarm message overwrites the existing message on these lines. Both M4000 terminals and VT100 terminals are provided with an 8-character alarm field to indicate critical, major, and minor alarms. Because the M4020 terminal has a speaker that can emulate the sounds of alarms, one M4020 terminal may be designated for audible alarms.

History File Access. Users can also display messages from the alarm history file. Through menu selection, a terminal user can bring up a form showing the last few alarm messages by header line. The user can scroll forward or backward, or select a message to be displayed in detail. The detailed message is in the same format as it would appear on the printer.

Search. As with logs, a user can list a subset of the alarm messages, with the search that is keyed on one or more fields. These fields are specified in a search form that is called up from the display form.

Print. To print alarm messages, a user can call up a print form and request a printout of messages keyed to specified fields. The print form is called up from the display form.

The alarm subsystem interacts with a piece of hardware called the Alarm Interface Unit (ALIU). The ALIU is a remote peripheral of the DNC, installed in the option slot of a LAN Interface unit (LIU). The ALIU provides contact openings or closures that can interact with the office alarm display equipment. It also has LEDs to indicate active alarms, and an Alarm Cut-Off (ACO) button to silence audible alarms while leaving the alarms active. The ALIU is described in more detail in 450-1011-100.

If the alarm subsystem software becomes faulty, or if a link between the DNC and the ALIU becomes faulty, a watchdog timer in the ALIU raises an audible alarm, plus an output to the customer interface connector for audible/ visual indications.

Log message and alarm message format

DNC Base Logs. The DNC Base messages are given in 450-1011-511. In general, DNC Base messages can be distinguished by the following characteristics:

(a) The “Subsystem,” “Report No.,” “Error No.,” and “Severity” fields are present, and clearly labelled as such, or

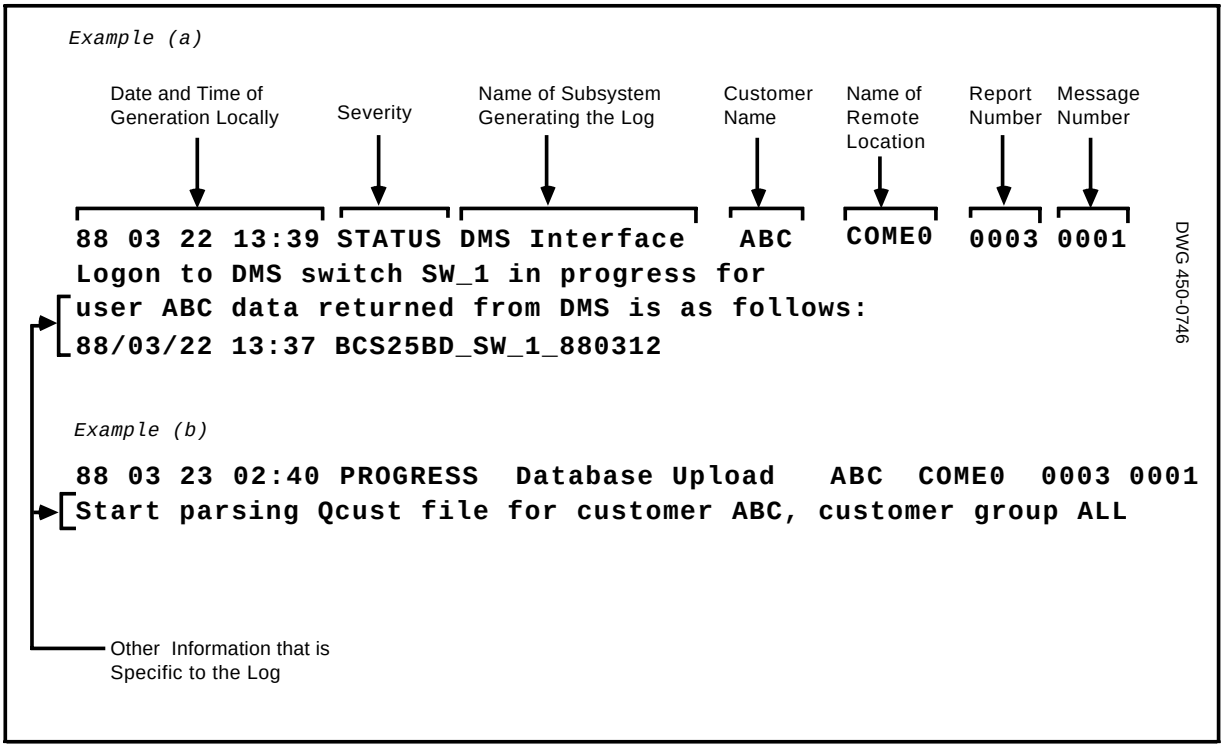
(b) The “Report Class” and “Report number” fields are present.

BNM Logs. Figure 1-1 shows two examples of BNM messages. The BNM messages are given in this appendix. In general, BNM messages can be distinguished by the following characteristics:

(a) The “Severity,” “Report Number,” and “Message Number” fields are present but not labeled due to space limitations.

(b) The Feature Name, Customer Name (where applicable), and Name of Remote Location fields are present, although not labeled.

Fig. 1-1
Two Examples Of BNM Log Messages



The following fields are present in BNM messages:

Date and time

The date, in format yy mm dd, and time (24-hour clock), in format hh:mm, show when the message was generated (or received at the remote location).

Severity

The severity code indicates the level of probability that the event generating the message will adversely affect the operation of the system. There are 16 severity levels, as follows:

C***ritical*** ***Major*** ***Minor***	These correspond to levels Status1, Status2, and Status3 respectively. Logs of these severity classes set off audible alarms and write alarm messages into the alarm message file.
Status4 to Status7	These are the intermediate severity codes.
Warning/ Trouble ***Status*** ***Progress***	These correspond to levels Status8, Status9, and Status10.
Status11 to Status16	These are the remaining severity codes.

Subsystem name

This field shows the name of the subsystem in software that generated the log. Subsystems are made up of PRUs that are grouped according to function.

In this appendix, messages are listed in separate tables for each subsystem. The tables are arranged in alphabetical order of subsystem, divided into five chapters, with the exception of the common messages. These are listed in the last of these chapters.

Customer name

For messages that are generated by interactions with data for a particular customer, the name of the customer is given.

Remote location

This field appears in messages generated by interactions with a remote node. It shows the name of the remote machine as recognized by the Remote Operations part of the Network Operations Protocol (NOP). This name is the one configured via the X.25 configuration feature of DNC Base. This feature is documented in 450-1011-301.

Report number

The Report Number, in hexadecimal format, is used to classify the nature of the message as follows:

0001	Job Start
0002	Job Completion
0003	DMS-100 Confirmation
0004	File Collected
0005	Input-Output Error
0006	Tasking Error
0007	Initialization Problem
0008	Communication Error
0009	DMS -100 Problem
000A	Memory Manager Problem
000B	Checkpoint Problem
000C	Send Task Communication
000D	Invalid Data Received
000E	Users Table Problem
000F	Owner Profile Table Problem
0010	Feature Table Problem
0011	Node Table Problem

0012	Customer Table Problem
0013	Customer Feature Profile Problem
0014	Customer Node Table Problem
0015	Customer DNC Table Problem
0016	Trunk Table Problem
0017	Customer Group Table Problem
0018	Virtual Facility Trunk Table Problem
0019	Subscriber Line Usage Table Problem
001A	Attendant Subgroup Table Problem
001B	Guardian Communication Problem
001C	Remote Operations Communications Problem
001D	Invalid Job State
001E	Invalid Collection Mode
001F	File Manager Problem
0020	Datafill Problem
0021	Miscellaneous Job Progress
0022	Scheduler Problem
0023	Mask Table Problem
0024	Exception Error
0025	Tape Service Request
0026	Sorter Problem
0027	Access to Resource Denied
0028	Runtime Error
0029	Data Spooling
002A	Database Problem
0060	Billing Problem
0061	CCIF Problem
0062	DVIX Problem

Error number

This field shows the hexadecimal number assigned to the message. Messages coming from different applications, such as DNC-Base and BNM, may have numbers in common. In this case, the messages can be distinguished by their subsystem names.

Other log-specific information

There can be several lines of supplementary information that further explain the event that caused the log.

Storage of log messages

The messages in the tables listed in Chapters 2 through 6 of this appendix may appear in the Log History file or in the Alarm History file. Messages that appear in both files are identical. These messages may also appear on one or more printers.

Note 1: If a message appears which is not discussed in the tables that follow, consult 450-1021-511 (A Guide to the DNC Logs and Alarms).

Note 2: Tables are listed in alphabetical order of the log subsystem name and are divided into five arbitrary chapters. For example, the table for the Application Guardian (in Chapter 2) is listed before the table of logs for the DMS-100 Interface (in Chapter 3).

Note 3: All tables list messages in order first of report number, then of message number.

2. Log messages

Application guardian subsystem

The Application Guardian (alias Job Manager) subsystem starts up jobs and monitors them from start to finish. It knows from the initialization (init) files how many jobs can be run, and what modifications to give to users or other PRUs, or both. The Application Guardian interacts with the Scheduler PRU. Log messages associated with the Application Guardian are listed in Table 2-A.

Table 2-A
Application guardian subsystem messages

0001/0100

Meaning and possible cause: The identified job, to collect the specified type of data from the specified node, failed to start for the reason shown.

Recommended action: Check the accompanying log messages for further information and the recommended course of action.

0001/0102

Meaning and possible cause: The job for the specified type of data, for the named customer, failed to start. A code to identify the problem for the support group is shown.

Recommended action: Check the accompanying log messages for further information and the recommended course of action.

0001/0103

Meaning and possible cause: The identified job, to collect the specified type of data from the specified node, has started.

Recommended action: No action is required.

Table 2-A (continued)
Application guardian subsystem messages

0001/0104

Meaning and possible cause: The job for the specified type of data, for the named customer, has started.

Recommended action: No action is required.

0001/0100

Meaning and possible cause:

Recommended action:

0001/0105

Meaning and possible cause: The identified job was unable to start collecting the specified type of data from the specified node. A code to identify the problem for the support group is shown.

Recommended action: Check the accompanying log messages for further information and the recommended course of action.

0001/0106

Meaning and possible cause: The identified job to collect the specified type of data from the specified node did not start because the job has already been requested.

Recommended action: No action is required.

0001/0107

Meaning and possible cause: Unable to request File Administrator to perform housekeeping cleanup job. A code to identify the problem to the support group is also shown.

Recommended action: Reboot the File Manager PRU and restart the job. If the fault persists, contact the NT support group.

0001/010B

Meaning and possible cause: Unable to start the identified Admin job.

Recommended action: Reboot the File manager PRU and restart the job.

Table 2-A (continued)
Application guardian subsystem messages

0001/010C

Meaning and possible cause: The Admin Housekeeping job has started.

Recommended action: No action is required.

0002/0100

Meaning and possible cause: The identified job to collect the specified type of data from the specified node was completed successfully.

Recommended action: No action is required.

0002/0101

Meaning and possible cause: The job, for the specified type of data for the named customer, was completed successfully.

Recommended action: No action is required.

0002/0102

Meaning and possible cause: The identified job to collect the specified type of data from the specified node was aborted. A code to identify the problem for the support group is shown.

Recommended action: Check the accompanying log messages for further information and the recommended course of action.

0002/0103

Meaning and possible cause: The job for the specified type of data for the named customer was aborted. A code is shown to identify the problem for the support group.

Recommended action: Check the accompanying log messages for further information and the recommended course of action.

0002/0104

Meaning and possible cause: The job for the specified type of data for the named customer was completed unsuccessfully. A code to identify the problem for the support group is shown.

Recommended action: Check the accompanying log messages for further information and the recommended course of action.

Table 2-A (continued)
Application guardian subsystem messages

0002/0105

Meaning and possible cause: The identified job to collect the specified type of data from the specified node was terminated unexpectedly. A code to identify the problem for the support group is shown.

Recommended action: Reboot the specific collector PRU and then restart the collection. If the problem persists, reboot the SRU on which the collector resides. If the problem still persists, contact the NT support group.

0002/0106

Meaning and possible cause: The job for the specified type of data for the named customer has terminated unexpectedly. A code is shown to identify the problem for the support group.

Recommended action: Reboot the specific collector PRU and then restart the collection. If the problem persists, reboot the SRU on which the collector resides. If the problem still persists, contact the NT support group.

0002/0107

Meaning and possible cause: The job to collect the specified type of data from the specified node has stopped.

Recommended action: Check the accompanying log messages for further information and the recommended course of action.

0002/0109

Meaning and possible cause: The File Administrator failed to perform the housekeeping cleanup job.

Recommended action: Reboot the File Manager PRU.

0002/010A

Meaning and possible cause: File Administrator failed to create daily accumulation directories for data collection. A code is shown to identify the problem for the support group.

Recommended action: Perform a disk audit and then restart the job. If the problem persists, reboot the DNC system. If the problem still persists, contact the NT support group.

Table 2-A (continued)
Application guardian subsystem messages

0002/010B

Meaning and possible cause: The Admin Housekeeping job completed successfully.

Recommended action: No action is required.

0002/010C

Meaning and possible cause: The Admin Housekeeping job completed unsuccessfully. A code is shown to identify the problem for the support group.

Recommended action: Reschedule the job to run immediately. If the problem persists, reboot the DNC System.

0008/0001

Meaning and possible cause: The communication alarm between the DNC-500 and the named node has been cleared.

Recommended action: No action is required.

0008/0002

Meaning and possible cause: There is a communication problem with the specified node location, or with the DMS-100 switch at that location. The data collection job cannot be done.

Recommended action: At the DNC, verify that the LIU port PRU, the Level-2 PRU, and the Level-3 PRU, and the Communication Server, are all in one of the working states. If they are, verify that the connections from the LIU port to the modem, and from the modem to the telephone line, are satisfactory.

At the DMS MAP terminal, or via MAP Passthru, verify the state of the MPC/DPAC card that sends data to the DNC, as well as the link to the DNC. If the card state is other than “ready,” and the link state other than “enabled,” busy the circuit out and return it to service.

If the problem persists, at the DNC, log off from all switches, courtesy down the Communication Server and then return it to service. Then log on again to restart the data collection.

Table 2-A (continued)
Application guardian subsystem messages

0008/0003

Meaning and possible cause: Data spooling could not be performed because of a communication problem with the named customer.

Recommended action: Verify that the following connections are satisfactory:

1. At the DNC-500

   APIO to RS232 cable

   RS232 cable to modem

   modem to telephone line

2. At the remote site

   telephone line to modem

0008/0004

Meaning and possible cause: The database could not be uploaded because of a problem with the specified node location.

Recommended action: At the DNC, verify that the LIU port PRU, the Level-2 PRU, and the Level-3 PRU, and the Communication Server, are all in one of the working states. If they are, verify that the connections from the LIU port to the modem, and from the modem to the telephone line, are satisfactory.

At the DMS MAP terminal, or via MAP Passthru, verify the state of the MPC/DPAC card and link to the DNC. If the card state is other than “ready,” or the link state other than “enabled,” busy the circuit out and return it to service.

If the problem persists, log off all switches, courtesy down the Communication Server and then return it to service. Then log on again to restart the database upload.

0008/0005

Meaning and possible cause: The data could not be collected because of a communication problem with the specified node location.

Recommended action: Verify that the LIU port PRU, the Level-2 PRU, and the Level-3 PRU, and the Communication Server, are all in one of the working states. If they are, verify that the connections from the LIU port to the modem, and from the modem to the telephone line, are satisfactory. If the problem persists, log off all switches, reboot the Communication Server and then return it to service. Then log on again to restart the data collection. If the problem still persists, contact the NT support group.

Table 2-A (continued)
Application guardian subsystem messages

0008/0006

Meaning and possible cause: There is a communication problem concerning the identified data transfer.

Recommended action: To be determined.

000F/0001

Meaning and possible cause: The File Manager Alarm has been cleared. This is to confirm that the File Manager alarm for the PRU that is specified in the log header has been cleared.

Recommended action: No action is required.

000F/0002

Meaning and possible cause: The named file that was collected cannot be registered with the File Manager. A code is shown to identify the problem for the support group.

Recommended action: Courtesy down the File Manager PRU and then return it to service. Then restart the data collections. If the problem persists, contact the NT support group.

000F/0003

Meaning and possible cause: The File Manager failed to create a directory in which to store the data that was collected.

Recommended action: Courtesy down the File Manager and then return it to service. Then restart the data collections.

000F/0004

Meaning and possible cause: The file name could not be obtained from the File Manager, for storing the data that was collected.

Recommended action: Courtesy down the File Manager and then return it to service. Then restart the data collections.

Table 2-A (continued)
Application guardian subsystem messages

0024/0100

Meaning and possible cause: The identified job failed to reschedule the collection of the specified data from the specified node location. A code is shown to identify the problem for the support group.

Recommended action: Check the accompanying log messages for further information and the recommended course of action.

0024/0101

Meaning and possible cause: The identified job failed to terminate the collection of the specified type of data from the specified node. A code is shown to identify the problem for the support group.

Recommended action: Check the accompanying log messages for further information and the recommended course of action.

0024/0102

Meaning and possible cause: The job to collect the specified type of data concerning the specified node could not start sending the data to the named customer. This identified job is terminated. A code is shown to identify the problem for the support group.

Recommended action: Reboot the specific collector PRU and restart the job. If the problem persists, reboot the DNC system.

0024/0108

Meaning and possible cause: The identified job was unable to collect the specified type of data from the specified node. A code is shown to identify the problem for the support group. The problem may be caused by a lack of available memory in the SRU that contains the collector PRU for the type of data.

Recommended action: Stop collections of the type of data, and any other activity that is performed by other PRUs on the same SRU. Reboot the SRU and then restart the activities. If the problem persists, reboot the DNC system.

Table 2-A (continued)
Application guardian subsystem messages

0024/0109

Meaning and possible cause: The job for the named customer's specified type of data could not be started. A code is shown to identify the problem for the support group. The problem may be caused by a lack of available memory in the SRU that contains the PRU that runs the job.

Recommended action: Stop collections of the type of data, and any other activity that is performed by other PRUs on the same SRU. Reboot the SRU and then restart the activities. If the problem persists, reboot the DNC system.

0024/010A

Meaning and possible cause: The identified job is unable to terminate the collection of the specified type of data from the specified node.A code is shown to identify the problem for the support group.

Recommended action: Stop collections of the type of data, and any other activity that is performed by other PRUs on the same SRU. Reboot the SRU and then restart the activities. If the problem persists, reboot the DNC system.

0024/010B

Meaning and possible cause: The job for the specified type of data required by the named customer cannot be terminated.

Recommended action: Stop collections of the type of data, and any other activity that is performed by other PRUs on the same SRU. Reboot the SRU and then restart the activities. If the problem persists, reboot the DNC system.

0024/010C

Meaning and possible cause: The quantity of free job entries for starting data collectors is greater than the allowable limit. A code is shown to identify the problem for the support group.

Recommended action: The present quantity of currently run data collector jobs must be reduced to the design limit.

Table 2-A (continued)
Application guardian subsystem messages

0024/010D

Meaning and possible cause: The identified job is unable to request a Communication Server to stop the transmission of the specified type of data from the specified node to the DNC-500. A code is shown to identify the problem for the support group.

Recommended action: Verify that the LIU port PRU, the Level-2 PRU, and the Level-3 PRU, and the Communication Server, are all in one of the working states. If they are, verify that the connections from the LIU port to the modem, and from the modem to the telephone line, are satisfactory. If the problem persists, log off all switches, reboot the Communication Server and then return it to service. Then log on again to restart the data collection.

0024/010E

Meaning and possible cause: Unable to request the Communication Server to stop the transmission of the specified type of data from the specified node to the named customer.

Recommended action: Verify that the LIU port PRU, the Level-2 PRU, and the Level-3 PRU, and the Communication Server, are all in one of the working states. If they are, verify that the connections from the LIU port to the modem, and from the modem to the telephone line, are satisfactory. If the problem persists, log off all switches, reboot the Communication Server and then return it to service. Then log on again to restart the data collection.

002A/0001

Meaning and possible cause: The Database Alarm for the named customer and the PRU specified in the log header is cleared.

Recommended action: No action is required.

002A/0002

Meaning and possible cause: The Commit Database failed to perform the Database Upload job for the named customer's specified type of data. The database is maintained as it was before the upload was attempted.

Recommended action: Verify that the SA Database Task (DT) and the Database Supervisor (DL) are in a working state.

Table 2-A (continued)
Application guardian subsystem messages

002A/0003

Meaning and possible cause: A serious problem has been encountered with the named customer's database.

Recommended action: Verify that the SA Database Task (DT) and the Database Supervisor (DL) are in a working state. If they are, contact the operating company to determine if the database is corrupted. If it is, the operating must re-initialize it before any further Service Order processing can be conducted for the named customer.

ATT data collector subsystem

The ATT Data Collector is the subsystem that collects the Automated Trunk Test (ATT) data from the node. This data consists of log messages from the DMS-100 switch reporting the progress and results of the automatic trunk testing. The results are partitioned by customer, sorted by test sequence number, and stored in data files based on customer and location. The log messages associated with the ATT Data Collector are listed in Table 2-B.

Table 2-B
ATT data collector subsystem messages

0005/0001

Meaning and possible cause: The collected ATT data could not be written to a file. This may be caused by the disk being full.

Recommended action: Perform a disk audit. If the problem persists, stop ATT collection from all switches and reboot the ATT Data Collector PRU. If this fails, reboot the DNC system.

0005/0002

Meaning and possible cause: The collected data file could not be closed due to an error. This may be caused by the disk being full.

Recommended action: Perform a disk audit. If the problem persists, reboot the DNC system.

0005/0003

Meaning and possible cause: The sorted data on collected ATT reports could not be written to a file. This may be caused by the disk being full.

Recommended action: Perform a disk audit. If the problem persists, reboot the DNC system.

0005/0004

Meaning and possible cause: The sorted ATT data could not be committed to file. This may be caused by the disk being full.

Recommended action: Perform a disk audit. If the problem persists, stop ATT collections from all nodes and reboot the ATT Data Collector PRU to restart the collections. If this fails, reboot the DNC system.

Table 2-B (continued)
ATT data collector subsystem messages

0005/0005

Meaning and possible cause: The ATT Data Collector has failed to locate a record in its unsorted temporary data file.

Recommended action: If the problem persists when the job is rescheduled, stop ATT data collection from all switches and reboot the ATT Data Collector PRU. Restart collection.

0005/0006

Meaning and possible cause: The ATT Data Collector could not define the sorting environment for sorting collected ATT reports.

Recommended action: If the message persists when the job is rescheduled, stop ATT collection from all nodes and reboot the ATT Data Collector PRU. Restart collections.

0005/0007

Meaning and possible cause: The file containing unsorted ATT report data could not be closed. This may be caused by the disk being full.

Recommended action: Perform a disk audit. If the problem persists, stop ATT collections from all nodes and reboot the ATT Data Collector PRU. Restart data collections. If this fails, reboot the DNC system.

0005/0008

Meaning and possible cause: An output file for storing collected data could not be opened. This may be caused by the disk being full.

Recommended action: If the problem persists when the job is rescheduled, perform a disk audit. If the problem persists, stop ATT data collection from all switches, reboot the ATT Collector PRU and restart data collection.

0005/0009

Meaning and possible cause: The ATT reports collected could not be saved. The unsorted data is saved.

Recommended action: Reschedule the ATT collection. If the problem persists, stop ATT data collection from all switches and reboot the ATT Collector PRU. Restart ATT data collection.

Table 2-B (continued)
ATT data collector subsystem messages

0005/000A

Meaning and possible cause: The ATT Data Collector failed to start sorting the ATT reports collected.

Recommended action: Reschedule the ATT collection. If the problem persists, stop ATT data collection from all switches and reboot the ATT Collector PRU. Restart ATT data collection.

0005/000B

Meaning and possible cause: The ATT collector failed to open the temporary file containing unsorted ATT reports collected.

Recommended action: Reschedule the ATT collection. If the problem persists, stop ATT data collection from all switches and reboot the ATT Collector PRU. Restart ATT data collection.

0005/000C

Meaning and possible cause: The ATT collector failed to move data from its temporary directory to the customer's storing directory.

Recommended action: Reschedule the ATT collection. If the problem persists, stop ATT data collection from all switches and reboot the ATT Collector PRU. Restart ATT data collection.

0005/000D

Meaning and possible cause: Unable to open test data file.

Recommended action: This log is only generated when running the ATT test tool, DCATRPRT and the ATT data file cannot be opened. Contact NT field support.

0005/000E

Meaning and possible cause: Unable to open report file.

Recommended action: This log is only generated when running the ATT test tool, DCATRPRT and output report file cannot be opened. Contact NT field support.

Table 2-B (continued)
ATT data collector subsystem messages

0005/000F

Meaning and possible cause: Unable to read from file containing unsorted ATT data. This message is logged when the ATT collector is unable to open the file containing unsorted ATT data collected.

Recommended action: Reschedule the ATT collection. If the problem persists, stop ATT data collection from all switches and reboot the ATT Collector PRU. Restart ATT data collection.

0008/0001

Meaning and possible cause: Comms or DMS-100 switch error received, data collection will terminate. When a communication problem between the DNC-500 and a DMS-100 switch, or a DMS-100 system problem is detected, this message, together with the error description is logged.

Recommended action: If the problem persists after the limit Comm_Alarm_retry_cnt configured in Application Guardian's init file is reached, an alarm will be generated. Follow alarm clearing procedures.

0009/0001

Meaning and possible cause: Unable to establish new checkpoint reference point for data collection. No data collected. When the ATT collector is unable to update checkpoint recovery record for collecting data, this message is logged.

Recommended action: Reschedule the ATT collection. If the problem persists, stop ATT data collection from all switches and reboot the ATT Collector PRU. Restart ATT data collection.

0009/0002

Meaning and possible cause: New checkpoint reference point for data collected established, no data collected. When the collector fails to find a checkpoint reference record to start collection, no data will be collected but a new reference point will be established.

Recommended action: Reschedule the ATT data collection. Collection will start at this reference point.

0009/0003

Meaning and possible cause: When the ATT collector detects a busy DMS-100 file it logs this message.

Recommended action: No action is required.

Table 2-B (continued)
ATT data collector subsystem messages

000A/0001

Meaning and possible cause: Unable to obtain memory space to perform sorting of ATT data collected. When the ATT collector fails to obtain sufficient heap memory for sorting ATT reports, this message is logged.

Recommended action: Reschedule the ATT collection. If the problem persists, stop ATT data collection from all switches and reboot the ATT Collector PRU. Restart ATT data collection.

000B/0001

Meaning and possible cause: Unable to create checkpoint for data collector, no data collected. If the collector fails to create a checkpoint reference record for data collection, collection will not start.

Recommended action: Reschedule the ATT collection. If the problem persists, stop ATT data collection from all switches and reboot the ATT Collector PRU. Restart ATT data collection.

000B/0002

Meaning and possible cause: The ATT Collector failed to find a checkpoint reference record to restart collection. No data is collected, but a new reference point is established.

Recommended action: When the next collection is rescheduled, data collection will start at this reference point. No action is required.

000B/0003

Meaning and possible cause: The limit on recovery attempts of data was exceeded. Collection was not started. ATT data on the specified switch may be corrupted.

Recommended action: Perform a manual rotate on the ATT data volume on the specified switch.

000B/0004

Meaning and possible cause: When the ATT collector fails to change the status of the DMS-100 file collected from unprocessed to processed, this warning message is shown.

Recommended action: Perform file status change manually at the switch.

Table 2-B (continued)
ATT data collector subsystem messages

000D/0001

Meaning and possible cause: Unexpected confirmation. Data collection will terminate. When the ATT collector receives an unexpected confirmation from the DMS-100, this message is shown.

Recommended action: Job will be rescheduled automatically. No action is required.

000D/0002

Meaning and possible cause: Invalid record type received, record skipped. When the ATT collector receives an invalid data record, the bad record is ignored and this message is shown.

Recommended action: No action is required.

000D/0003

Meaning and possible cause: The data block received contains no application information record. Each ATT data block collected from the DMS-100 switch contains an application information record as the first record. If the collector fails to detect this record, this message is shown.

Recommended action: Dump the ATT data from the specified DMS-100 switch, to determine if it is faulty.

000D/0004

Meaning and possible cause: If a duplicate ATT report is received from the DMS-100 switch, the previous test is discarded and this message is shown.

Recommended action: No action is required.

000D/0005

Meaning and possible cause: If a duplicate transmission record for an ATT report is received, the previous test result is discarded and this message is shown.

Recommended action: No action is required.

Table 2-B (continued)
ATT data collector subsystem messages

000D/0006

Meaning and possible cause: Duplicate test information record received. Previous test result discarded. If a duplicate information record for an ATT report is received, the previous test result is discarded and this message is shown.

Recommended action: No action is required.

000D/0007

Meaning and possible cause: Invalid system event record received. Particular record discarded. If the system event record (record type 1) collected is invalid, the record is ignored and this message is shown.

Recommended action: Dump the ATT data from the specified DMS-100 switch, to determine if it is faulty.

000D/0008

Meaning and possible cause: Premature EOT received from current transfer mode. If an unexpected end of transmission of data is received during data collection, this message is shown.

Recommended action: The job will be rescheduled. If the problem persists when the job is rescheduled, stop ATT data collection from all switches and reboot the Communications Server PRU. Restart ATT data collection.

000D/0009

Meaning and possible cause: If the length of the ATT data block received is invalid, this message is shown.

Recommended action: Dump the ATT data from the specified DMS-100 switch, to determine if it is faulty.

001E/0001

Meaning and possible cause: File already has a checkpoint record. This is to indicate that part of this file has already been collected.

Recommended action: Demand recovery mode should be used to collect the remaining portion of the file.

Table 2-B (continued)
ATT data collector subsystem messages

0021/0001

Meaning and possible cause: Invalid open mode for data file operation. This message will only be shown if there is a software problem.

Recommended action: Stop ATT data collection from all switches, reboot the ATT Collector PRU, and restart data collection.

0021/0002

Meaning and possible cause: If the ATT data stream indicates the DMS-100 switch initiated a warm restart during the ATT test sequence, the test results taken during the warm restart are discarded and this message is shown.

Recommended action: No action is required.

0021/0003

Meaning and possible cause: If the ATT data stream indicates the DMS-100 switch initiated a cold restart during ATT testing, the test results obtained during the cold restart are discarded and this message is shown.

Recommended action: No action is required.

0021/0004

Meaning and possible cause: If the ATT data stream indicates data stream reset when ATT tests were in progress, these test results during the stream reset are discarded and this message is shown.

Recommended action: No action is required.

0021/0005

Meaning and possible cause: If the ATT data stream indicates data stream reset when an ATT test was in progress, the test result during the stream reset is discarded and this message is shown.

Recommended action: No action is required.

0021/0006

Meaning and possible cause: If the ATT data stream indicates data buffer loss when ATT tests were in progress, the test result during the buffer loss is discarded and this message is shown.

Recommended action: No action is required.

Table 2-B (continued)
ATT data collector subsystem messages

0021/0007

Meaning and possible cause: If the ATT data stream received from the DMS-100 switch contains more than 15 outstanding ATT reports to be processed, the oldest updated test is discarded and this message is shown.

Recommended action: No action is required.

Billing subsystem

The Billing subsystem is used to provide billing capability for station administration by a Centrex customer for the DMS-100 and BNM-ISDN environment. The subsystem is the interface between BNM and the operating company Customer Record Information System (CRIS). The system allows the billing of User Connect Time, Feature Count, and Marketing Service Work Counts. It also allows daily and monthly billing information to be verified.

Examples of typical billing log messages are shown in figure 2-1 below. Those messages generated from the DVIX operating system are referenced in Table 3-E (DVIX System Messages).

The billing messages in this chapter are tabulated according to the report number and error number for the log message.

Note:

A particular report number/error number can identify more than one log message in this application.

Each billing log message (see Table 2-C) has a level of severity associated with it. The three possible severity levels are critical (designated by "*C Criti", error number '0001'), major (designated by "** Major", error number '0002'), and minor (designated by "* Minor", error number '0003').

Fig. 2-1
Two examples of billing log messages

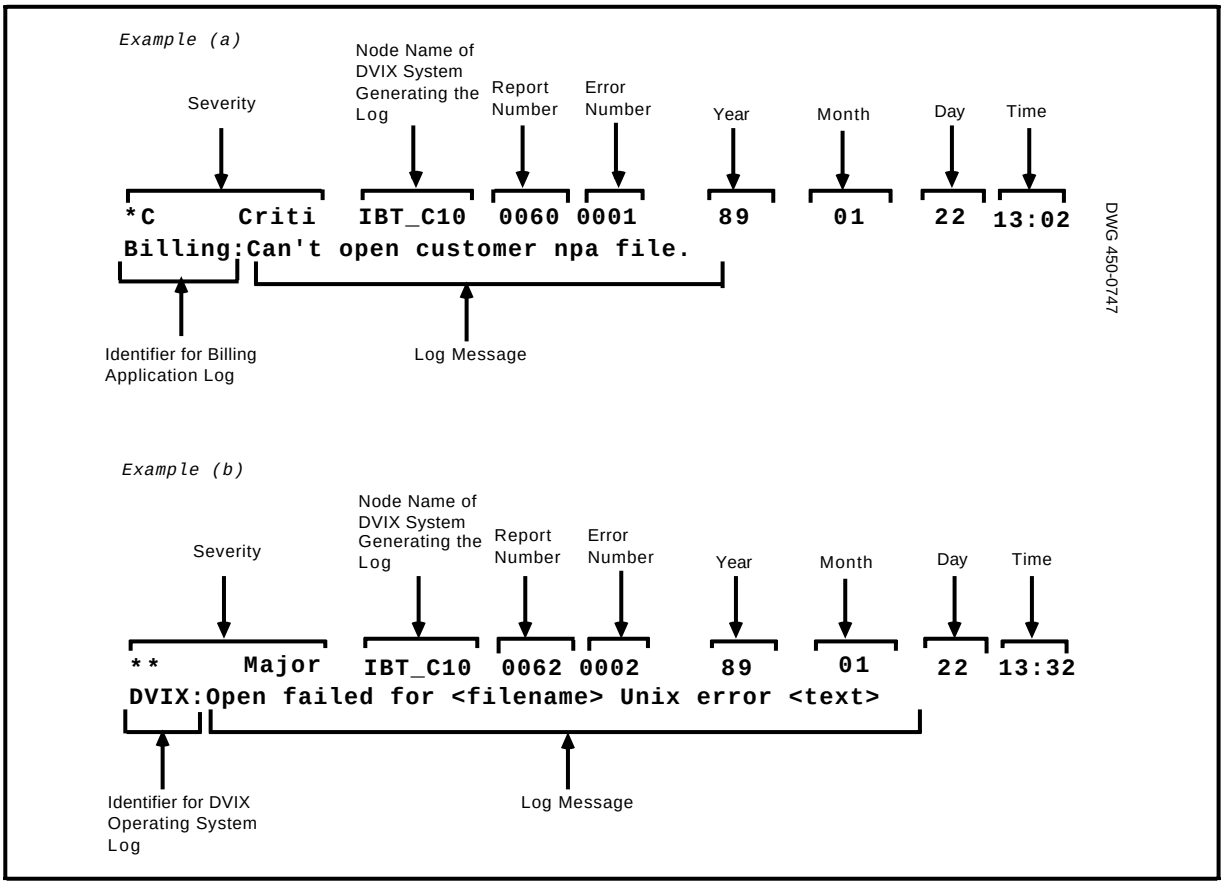


Table 2-C
Billing subsystem messages

0060/0001

Log messages: Billing:Can't open customer NPA file

Meaning and recommended action: This is a critical error situation. The customer NPA file cannot be opened because the file, used to determine which customers to be billed, cannot be accessed.

Action: Verify that the file exists. If it does, verify that its access privileges are correct. If no faults are identified, recreate the file.

Table 2-C (continued)
Billing subsystem messages

0060/0001

Log messages: Billing:<Filename or Directory> cannot be accessed

Meaning and recommended action: This is a critical error situation. A billing process was unable to open a specified file or directory.

Action: Verify the access privileges to the file or directory.

0060/0001

Log messages: Billing:Customer <ID> cannot be found in ISDN Mate

Meaning and recommended action: This is a critical error situation. A billing process could not locate the identified customer in the ISDN Mate database.

Action: Create the customer in the ISDN Mate database using the MMI Create Customer function.

0060/0001

Log messages: Billing:Could not rendezvous with BNM Pascal Agent

Meaning and recommended action: This is a critical error situation. An attempt to exchange ISDN Mate billing process messages with the BNM agent failed.

Action: Verify that the BNM Pascal Agent has been loaded and is executing properly.

0060/0001

Log messages: Billing:Mounted File System not found for ISDN-Mate

Meaning and recommended action: This is a critical error situation. The mountable file system could not be found in the look-up table.

Action: Verify that the mountable file system has been mounted.

Table 2-C (continued)
Billing subsystem messages

0060/0001

Log messages: Billing:Daily/Monthly Billing cannot proceed - Correct problem and restart

Meaning and recommended action: This is a critical error situation. No billing processes can proceed because a fatal error has occurred.

Action: Take corrective action based on the error messages that are displayed, and then restart the billing process.

0060/0001

Log messages: Billing:Not enough disk space to proceed

Meaning and recommended action: This is a critical error situation. The billing process cannot proceed because there is insufficient available space on the disk.

Action: Create additional disk space to met at least the minimum requirements of the billing process.

0060/0001

Log messages: Billing:Cannot find the DPO <ID> in ISDN-Mate

Meaning and recommended action: This is a critical error situation. The Monthly Billing process cannot find the Data Processing Office (DPO) in the Customer Record Information System (CRIS) Customer Configuration file.

Action: Add the DPO to the CRIS Customer Configuration file.

0060/0001

Log messages: Billing:Audit for customer has failed

Meaning and recommended action: This is a critical error situation. A request for the audit system to retrieve customer information from the BNM database failed.

Action: Verify that the Create Customer operation was carried out correctly. If it was, report the problem to the software support group.

Table 2-C (continued)
Billing subsystem messages

0060/0001

Log messages: Billing:MMI ERROR : Initialization failure

Meaning and recommended action: This is a critical error situation. There was a failure in the initialization steps for the screen initialization process.

Action: Report the problem to the software support group.

0060/0001

Log messages: Billing:MMI ERROR : Unable to load screen

Meaning and recommended action: This is a critical error situation. A failure in the DVIX curses function or in the system call prevented the screen from being loaded.

Action: Report the problem to the software support group.

0060/0001

Log messages: Billing:MMI ERROR : Failure in curses function call

Meaning and recommended action: This is a critical error situation. An error in the DVIX curses function call caused an MMI error.

Action: Report the problem to the software support group.

0060/0001

Log messages: Billing:MMI ERROR : Unable to open verify file for <file type>

Meaning and recommended action: This is a critical error situation. An MMI error occurred because the temporary verify file for the specified file type could not be opened.

Action: Verify that the temporary file exists. If it does, check the correctness of the permissions of the file.

Table 2-C (continued)
Billing subsystem messages

0060/0001

Log messages: Billing:MMI ERROR : Unable to build verify file for <file type>

Meaning and recommended action: This is a critical error situation. An MMI error occurred because data from the storage files could not be put into the temporary verify file for the specified file type for editing purposes.

Action: Verify that the temporary file exists. If it does, check the correctness of the permissions of the file.

0060/0001

Log messages: Billing:MMI ERROR : Unable to open data file for <file type>

Meaning and recommended action: This is a critical error situation. An MMI error occurred because the data file for the specified file type could not be opened so that the data in the file could be displayed or updated.

Action: Verify that the data file exists. If it does, check the correctness of the permissions of the file.

0060/0001

Log messages: Billing:MMI ERROR : Unable to build data file for <file type>

Meaning and recommended action: This is a critical error situation. An MMI error occurred because the edited contents of the temporary file could not be restored to the specified data storage file.

Action: Verify the data file permissions and make corrections as required.

0060/0001

Log messages: Billing:MMI ERROR : Unable to open file for <file type>

Meaning and recommended action: This is a critical error situation. An MMI error occurred because the error file, produced by the validate routine after the editing process, could not be opened.

Action: Verify that the temporary file exists. If it does, check the correctness of the file permissions.

Table 2-C (continued)
Billing subsystem messages

0060/0001

Log messages: Billing:MMI ERROR : Unable to initialize error file for <file type>

Meaning and recommended action: This is a critical error situation. An MMI error occurred because the initial header, produced by the validation routine, could not be put into the error file. This prevented the error file for the specified file type from being initialized.

Action: Verify the error file permissions and make corrections as required.

0060/0001

Log messages: Billing:MMI ERROR : Unable to open current customer

Meaning and recommended action: This is a critical error situation. An MMI error occurred because the current customer file could not be opened.

Action: Report the problem to the software support group.

0060/0002

Log messages: Billing:Add of new station failed

Meaning and recommended action: This is a major error situation. The attempt to add a station to the internal station inventory failed.

Action: Report the problem to the support group.

0060/0002

Log messages: Billing:Put of customer information failed

Meaning and recommended action: This is a major error situation. The information that was supplied for the specified customer was not accepted.

Action: Verify the correctness of the information. Make any necessary changes and then retry the input.

Table 2-C (continued)
Billing subsystem messages

0060/0002

Log messages: Billing:Auto Renumber of customer group failed

Meaning and recommended action: This is a major error situation. The customer's BNM Group Number was changed and the DVIX operating system cannot perform the change.

Action: Verify that the new group number is unique. If it is, check the directory permissions for the old directory and the parent directory.

0060/0002

Log messages: Billing:Audit File could not be created by BNM

Meaning and recommended action: This is a major error situation. The SARC file that results from a DVIX audit request to BNM could not be created.

Action: Verify that the Create operation was correct; if it was faulty retry the operation. If no fault is found in the Create operation, report the problem to the software support group.

0060/0002

Log messages: Billing:<Customer name> is not a valid customer

Meaning and recommended action: This is a major error situation. The named customer for which a billing operation was attempted is not defined in the BNM database.

Action: Use the Database Upload option on the BNM main menu to add the named customer to the BNM database.

0060/0002

Log messages: Billing:Warning -- Missing Rate Table entry for <ID>

Meaning and recommended action: This is a major error situation. A rate table entry for the specified rate cannot be found.

Action: Verify that the specified rate is valid. If it is, add the rate to the Rate Table.

Table 2-C (continued)
Billing subsystem messages

0060/0002

Log messages: Billing:An unknown sarc record type <x> in sarc file

Meaning and recommended action: This is a major error situation. An undefined record type was encountered in the SARC file.

Action: Verify that the SARC record type is valid. If it is, add the record type to the SARC file.

0060/0003

Log messages: Billing:Audit has completed for customer

Meaning and recommended action: This log is generated for information purposes only. The billing process for the named customer has completed.

Action: No action is required.

0060/0003

Log messages: Billing:Audit has begun for customer

Meaning and recommended action: This log is generated for information purposes only. The billing process for the named customer has started.

Action: No action is required.

0060/0003

Log messages: Billing:Monthly Billing has already been run for this day

Meaning and recommended action: This log is generated for information purposes only. An attempt was made to run the monthly billing process for a day that the process had already run.

Action: No action is required.

0060/0003

Log messages: Billing:500 records have been processed by the audit

Meaning and recommended action: This log is generated for information purposes only. The audit process reported the completion of the 500th record.

Action: No action is required.

Table 2-C (continued)
Billing subsystem messages

0060/0003

Log messages: Billing:Warning - Main number <xxxx> not found in customer inventory

Meaning and recommended action: This log is generated for information purposes only. The audit process warned that the main telephone number was not found in the customer inventory file.

Action: No action is required.

Billing interface subsystem

The Billing Interface subsystem provides the interface between station administration (SA) and the packet data terminal billing system. This interface enables data files to be sent to the billing system. These data files detail which parameters have changed when a change is made to an ISDN station. The entire database of ISDN stations for a customer may also be obtained through this subsystem. The log messages associated with the Billing Interface subsystem are listed in Table 2-D.

Table 2-D
Billing interface subsystem messages

0001/0002

Meaning and possible cause: An audit has begun for the specified customer.

Recommended action: No action is required.

0001/0003

Meaning and possible cause: An audit is in progress. The log also displays the number of DNA records that have been audited.

Recommended action: No action is required.

0002/0002

Meaning and possible cause: This log states whether the audit operation terminated successfully or not.

Recommended action: No action is required.

0002/0003

Meaning and possible cause: The audit operation was aborted.

Recommended action: Discard the current audit file and re-issue the audit request.

0005/0002

Meaning and possible cause: An input/output error occurred while writing to the disk during the audit process.

Recommended action: Ensure that there is sufficient space on the selected file server and that the destination directory is not write-protected. Re-issue the audit request.

Table 2-D (continued)
Billing interface subsystem messages

0005/0003

Meaning and possible cause: The recent change file could not be opened after a change has been done in the Packet Data MMI.

Recommended action: Ensure that there is sufficient space on the selected file server. Also make sure that there are valid characters in the SDM table PDRC LINK-ND for the application name. Re-issue the audit request.

0006/0002

Meaning and possible cause: A tasking error has occurred with another task during the audit operation.

Recommended action: Ensure that the following PRUs are in a working state:

PC - ISDN OAM NAS i/f Control

DL - MAC Database Supervisor

DT - MAC Database Task

000D/0002

Meaning and possible cause: This log is generated if a function returns a bad status.

Recommended action: Check the details of the log for possible problems.

000D/0002

Meaning and possible cause: A problem has occurred with either the SA database or the NAS database. The database in question is specified in the log.

Recommended action: Ensure that the following PRUs are in a working state:

PC - ISDN OAM NAS i/f Control

DL - MAC Database Supervisor

DT - MAC Database Task

BNM/NAS interface control subsystem

The BNM/NAS Interface Control subsystem provides an interface between BNM and the DPN Network Administration System (NAS) remote database access interface. The log messages associated with the BNM/NAS Interface Control subsystem are listed in Table 2-E.

Table 2-E
BNM/NAS interface control subsystem messages

0001/0001

Meaning and possible cause: This log is generated when software errors of any description (for example, tasking errors, run-time errors) are encountered.

Recommended action: The information contained in the log should be recorded for further study, especially if the log is reoccurring.

0001/0002

Meaning and possible cause: A packet data audit has been initiated for a customer.

Recommended action: No action is required.

0001/0003

Meaning and possible cause: This log is generated every time 25 DNA records have been retrieved from the NAS interface.

Recommended action: No action is required.

0002/0001

Meaning and possible cause: A network connection with the remote NAS host mainframe was attempted by an X.25 communications PRU.

Recommended action: No action is required.

0002/0002

Meaning and possible cause: The packet data audit has completed.

Recommended action: No action is required.

0002/0003

Meaning and possible cause: The subsystem (that is, PC PRU) was switched to the "down" state during a packet data audit operation.

Recommended action: Put the PC PRU back into service and re-issue a packet data audit.

Table 2-E (continued)
BNM/NAS interface control subsystem messages

0003/0001

Meaning and possible cause: A network connection with the remote NAS host mainframe was made and is ready for use.

Recommended action: No action is required.

0004/0001

Meaning and possible cause: A network connection with the remote NAS host mainframe was attempted but was not successful.

Recommended action: Ensure that the link datafill in SDM tables and in SAS configuration (for the gateway) are correct. Also ensure that the communication links are up and all modems are in the correct states.

0005/0001

Meaning and possible cause: The X.25 communications PRU received a network disconnection signal.

Recommended action: Determine if the cause of the disconnect was a normal operation (for example. IBM ports were taken down) or an abnormal operation.

0005/0002

Meaning and possible cause: A disk input/output error has occurred during the audit operation. This could be due to several causes such as a full disk or a write-protected directory.

Recommended action: Re-issue the packet data audit.

0005/0003

Meaning and possible cause: The packet data recent change file could not be opened.

Recommended action: Attempt to redo the change through the Service Orders MMI. If this log appears again, contact the NT support group.

0006/0001

Meaning and possible cause: The X.25 communications PRU requested that the remote NAS host mainframe be disconnected from the network.

Recommended action: Determine if the cause of the disconnect was a normal operation (for example. IBM ports were taken down) or an abnormal operation.

Table 2-E (continued)
BNM/NAS interface control subsystem messages

0006/0002

Meaning and possible cause: A tasking error has occurred during a packet data audit operation. It may have been caused by the shutting down of a PRU essential to the packet data audit.

Recommended action: Re-issue the packet data audit operation.

0007/0001

Meaning and possible cause: A logon to the NAS host was requested over a communications link.

Recommended action: No action is required.

0008/0001

Meaning and possible cause: The request for a logon to the NAS host over a communications link was confirmed.

No action is required.

0009/0001

Meaning and possible cause: The request for a logon to the NAS host over a communications link was rejected.

Recommended action: Reattempt the logon request. After a certain number of attempts, the link will be dropped. Check the contents of the message and other associated logs to determine what corrective action must be taken (for example, password change, invalid userid).

000A/0001

Meaning and possible cause: A timeout occurred while waiting for a signal from the NAS indicating that it is ready to receive requests.

Recommended action: Reattempt the logon request. After a certain number of attempts, the link will be dropped. If timeouts persist, adjust the appropriate logon timers in the SDM tables.

000B/0001

Meaning and possible cause: The NAS session has been started successfully.

Recommended action: No action is required.

Table 2-E (continued)
BNM/NAS interface control subsystem messages

000C/0001

Meaning and possible cause: This log is generated when software events of a general nature (for example, a CP RECONNECT, requested address or NAS account changes) are encountered.

Recommended action: No action is required.

000D/0001

Meaning and possible cause: A timeout occurred while waiting for a response from the NAS to an outstanding request.

Recommended action: Reattempt the logon request. After a certain number of attempts, the link will be dropped. If timeouts persist, adjust the appropriate logon timers in the SDM tables.

000D/0002

Meaning and possible cause: This log indicates that an abnormal event has occurred during a packet data audit.

Recommended action: If it appears that the audit is proceeding, then no action is required. However, if the audit was halted due to this error, then re-issue the packet data audit operation.

000E/0001

Meaning and possible cause: The NAS interface controller detected a possible violation of the BNM/NAS interface protocol.

Recommended action: The information contained in the log should be recorded for further study, especially if the log is reoccurring. The problem should be reported to the NT support group.

000F/0001

Meaning and possible cause: This log is generated whenever an SDM table error has an impact on the NAS interface controller's host logon or link management responsibilities.

Recommended action: Attempt to correct the SDM table. If problem persists, contact the NT support group.

Table 2-E (continued)
BNM/NAS interface control subsystem messages

0010/0001

Meaning and possible cause: This log is generated when an alarm that has been previously issued is being cleared by the BNM/NAS Controller. This may occur upon a successful X.25 reconnection (if a previous timeout occurred), upon an update to the SDM table "PC NASIF HOST-UD" (with a change of host information for logon) or upon courtesying down the PRU.

Recommended action: No action is required.

002A/0001

Meaning and possible cause: An error has occurred while retrieving data from either the Station Administration or NAS database during a packet data audit.

Recommended action: If it appears that the audit is proceeding, then no action is required. However, if the audit was halted due to this error, then re-issue the packet data audit operation.

CCIF subsystem

The CCIF subsystem is used to gather information that relates to the cable repair of customer loops.

Examples of typical CCIF log messages are shown in Fig. 2-2 below. Those messages generated from the DVIX operating system are referenced in Table 3-E (DVIX System Messages).

The CCIF messages in Table 2-F are tabulated according to the report number and error number for the log message.

> ***Note:*** A particular report number/error number can identify more than one log message in this application.

Each CCIF log message has a level of severity associated with it. The three possible severity levels are critical (designated by "*C Criti", error number '0001'), major (designated by "** Major", error number '0002'), and minor (designated by "* Minor", error number '0003').

Fig. 2-2
Two examples of CCIF log messages

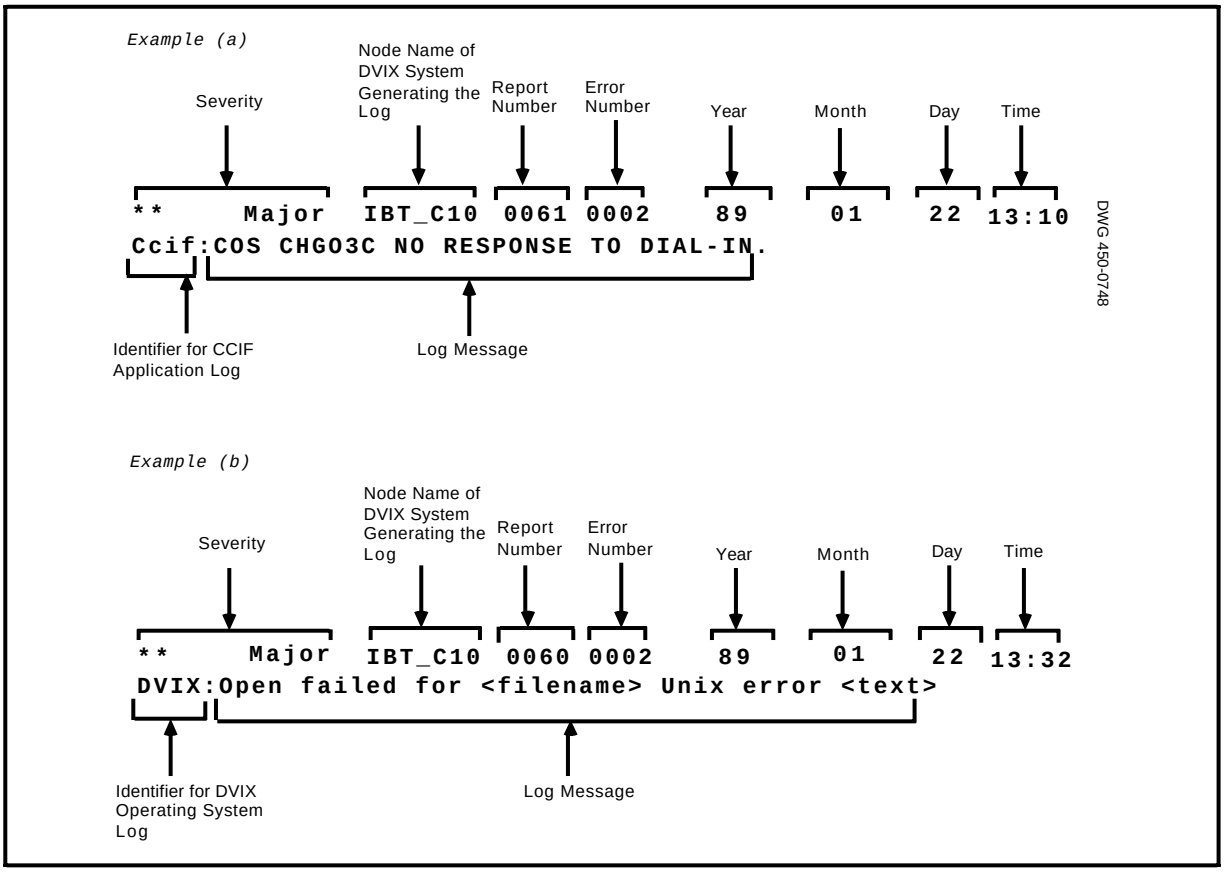


Table 2-F
CCIF subsystem messages

0061/0002

Log message: CCIF:Switch given in sarc file is not in the update control file - <switch name>

Meaning and recommended Action: This is a major error situation. A CCIF error occurred because the switch that is displayed in the SARC file is not listed in the update control file.

Action: Edit the update control file, adding the switch to the proper wire center.

0061/0002

Log message: CCIF:UPDATE CONTROL FILE NOT FOUND

Meaning and recommended Action: This is a major error situation. The CCIF could not find the update control file for COSMOS/CRAS updates.

Action: Edit the update control file.

0061/0002

Log message: CCIF:UPDATE CONTROL FILE ERROR

Meaning and recommended Action: This is a major error situation. A CCIF error occurred because the update control file contains incorrect data.

Action: Edit the update control file by entering correct data.

0061/0003

Log message: CCIF:<sys IDs> NO RESPONSE TO DIAL-IN

Meaning and recommended Action: This is a minor error situation. The CCIF could not dial the identified COSMOS or CRAS system.

Action: Perform the manual update procedure.

Table 2-F (continued)
CCIF subsystem messages

0061/0003

Log message: CCIF:INIT ERROR : Someone else is using the port

Meaning and recommended Action: This is a minor error situation.A CCIF initialization error occurred because the dial out port is currently active.

Action: Use /usr/spool/locks to determine if a lock file exists (when no process is using the file). If the port is legitimately active retry the command at a later time.

0061/0003

Log message: CCIF:<sys IDs> NO RESPONSE TO LOGIN

Meaning and recommended Action: This is a minor error situation. The CCIF could not log onto the identified COSMOS or CRAS system.

Action: Perform the manual update procedure.

0061/0003

Log message: CCIF:<sys IDs> NO RESPONSE FROM HOST

Meaning and recommended Action: This is a minor error situation. A CCIF error occurred because a COSMOS or CRAS system did not respond to the CCIF during an update session.

Action: Perform the manual update procedure.

3. Log messages

Data spooling agent subsystem

The Data Spooling Agent subsystem oversees data spooling to a remote customer host or terminal through ASCII Programmed Input-Output (APIO) ports. Access to the transmitting DNC-500 is through dial-up using Bell 212A (or equivalent) modems. The customer identification and password are validated, then the Data Spooling Agent transmits the data pertaining to the customer that has not yet been transmitted to customer premises. The Data Spooling Agent can also be used in a scheduled mode using Scheduling Services. The log messages associated with the Data Spooling Agent subsystem are listed in Table 3-A.

Table 3-A
Data spooling agent subsystem messages

0002/0001

Meaning and possible cause: A data spooling job has been successfully completed. The Customer Data Spooling Agent has dropped its connection with an APIO port.

Recommended action: No action is required. This is part of the normal job completion sequence.

0002/0002

Meaning and possible cause: No unsent SMDR data files were spooled for the specified customer.

Recommended action: No action is required.

0002/0003

Meaning and possible cause: The spool job for the specified customer has prematurely terminated. This log indicates that a problem has developed during the spool job.

Recommended action: Check adjacent log messages for further information.

Table 3-A (continued)
Data spooling agent subsystem messages

0002/0004

Meaning and possible cause: This message indicates the number of CLLIs of a specific type that were in the customer's translation file, but not found in the Facility Group Table on the DNC system during the last spool job. The specified CLLI types are: Customer Group, Trunk Group, Virtual Facility Group, and Attendant Console (or Subgroup). This message occurs only when SMDR Preprocessing is enabled for this customer, and when the error count is greater than zero.

Recommended action: Capture the SMDR translation file for the customer. Do this by performing a spool job with SMDR Preprocessing disabled for the specific customer and node. Abort the job (by sending the ESCAPE character) after the translation file has been spooled. Compare all CLLIs of the specified type from the translation file with the contents of the specific Facility Group table for correctness. Correct any missing or incorrect data in the table and restart the spool job.

0002/0005

Meaning and possible cause: This message indicates the number of occurrences when the customer group number field of an SMDR call record was not able to map to a user reference in the DNC Customer Table. This message only occurs when SMDR Preprocessing is enabled and the error count is greater than zero. The DNC datafill may not be correct.

Recommended action: This means the customer group number was not defined in the translation file and is replaced with four asterisks (****) in the spooled data. Capture the SMDR Translation files for the Telco (master file) and the customer. Do this by performing two spool jobs with SMDR Preprocessing disabled (one on Telco data and the other on the customer's data). Abort each job (by sending the ESCAPE character) after the translation file has been spooled. Compare the customer group records from each file for correctness. Refer to 297-2001-119 for SMDR translation record format. Correct any missing or incorrect data in the specific Facility Ownership Table and restart the spool job.

Table 3-A (continued)
Data spooling agent subsystem messages

0002/0006

Meaning and possible cause: This message indicates the number of occurrences when a CLLI number field in the originating ID field of the SMDR call record was not able to map to a user reference. This message occurs when preprocessing is enabled and the error count is greater than zero. The DNC datafill may not be correct. The message identifies the CLLI type (A, K, C, or V). Where A is an Attendant Console (subgroup), K is a Trunk Group, C is a Customer Group, and V is a Virtual Facility Group.

Recommended action: This means the specific CLLI group number is not defined in the translation file and is replaced with four asterisks (****) in the spooled data. Capture the SMDR Translation files for the Telco (master file) and the customer. Do this by performing two spool jobs with SMDR Preprocessing disabled (one on Telco data and the other on the customer's data). Abort each job (by sending the ESCAPE character) after the translation file has been spooled. Compare the specific CLLI group records from each file for correctness. Refer to 297-2001-119 for SMDR translation record format. Correct any missing or incorrect data in the specific Facility Ownership Table and restart the spool job.

0002/0007

Meaning and possible cause: This message indicates the number of occurrences in which the attendant console number field of the SMDR call record was not able to map to a user reference in the Facility Group Table. This message only occurs when preprocessing is enabled and the error count is greater than zero.

Recommended action: This means the attendant subgroup number was not defined in the translation file and is replaced with four asterisks (****) in the spooled data. Capture the SMDR Translation files for the Telco (master file) and the customer. Do this by performing two spool jobs with SMDR Preprocessing disabled (one on Telco data and the other on the customer's data). Abort each job (by sending the ESCAPE character) after the translation file has been spooled. Compare the attendant subgroup records from each file for correctness. Refer to 297-2001-119 for SMDR translation record format. Correct any missing or incorrect data in the specific Facility Ownership Table and restart the spool job.

Table 3-A (continued)
Data spooling agent subsystem messages

0002/0008

Meaning and possible cause: This message indicates the number of occurrences in which a CLLI number field in the terminating ID field of the SMDR call record was not able to map to a user reference in the Facility Group Table. This message only occurs when preprocessing is enabled and the error count is greater than zero.

Recommended action: This means the specific CLLI group number was not defined in the translation file and is replaced with four asterisks (****) in the spooled data. Capture the SMDR Translation files for the Telco (master file) and the customer. Do this by performing two spool jobs with SMDR Preprocessing disabled (one on Telco data and the other on the customer's data). Abort each job (by sending the ESCAPE character) after the translation file has been spooled. Compare the specific CLLI group records from each file for correctness. Refer to 297-2001-119 for SMDR translation record format. Correct any missing or incorrect data in the specific Facility Ownership Table and restart the spool job.

0002/0009

Meaning and possible cause: This message indicates that a number of undefined record types were encountered, and shows the quantity that were found.

Recommended action: No action is required.

0002/000A

Meaning and possible cause: This message indicates that the spool job has been terminated from the customer premise. The end-customer initiated the job termination by transmitting the 'ESC' character.

Recommended action: The customer may begin a subsequent job upon receiving the end-of-transmission banner.

0002/000B

Meaning and possible cause: This message occurs when the data spool job prematurely aborts due to an RS-232 or telephone circuit communication problem.

Recommended action: Ensure that all communication links are secure before attempting subsequent spool jobs.

Table 3-A (continued)
Data spooling agent subsystem messages

0005/0001

Meaning and possible cause: This message occurs when the spooling agent is not successful in opening an SMDR translation file for the specific customer. Before the message is displayed, both the TELCO and customer translation files were searched. (The related D files are still spooled.)

Recommended action: Restart data collection for the specific node. This will create a TELCO file and a customer translation file. Manually restart the spooling job.

0006/0001

Meaning and possible cause: This message occurs when the Customer Data Spooling PRU is unable to locate the Data Spooling Manager PRU.

Recommended action: Stop all spooling activity and reboot the Data Spooler Manager PRU. Restart all spool jobs.

0006/0002

Meaning and possible cause: This message occurs when the Customer Data Spooling PRU is unable to communicate with the Data Spooling Manager PRU.

Recommended action: Stop all spooling activity and reboot the Data Spooler Manager PRU. Restart all spool jobs.

0007/0002

Meaning and possible cause: The Data Spooling Agent (DS) PRU failed to read initialization data successfully from the specified SDM table. This may have occurred because the specified table is empty or corresponding data files are corrupt. Although the DS PRU will load, the spool jobs will fail.

Recommended action: Verify by way of the SDM Table Editor that the specified SDM table exists and that the datafill for the table is correct. Recommended datafill values are documented in the BNM Release Notes. If the problem persists, restore a previous SD directory to the machine and repeat the process again.

Table 3-A (continued)
Data spooling agent subsystem messages

0008/0001

Meaning and possible cause: Spool job for LIU port transmission suspended. Transmission signals are not high.

Recommended action: Check the following connections:

1) DNC: APIO port to RS232 cable; RS232 cable to modem; modem to telephone line.
2) Remote site: telephone line to modem; modem to RS232 cable; RS232 cable to receiving device.

Also check if the remote site remains dialed up to the DNC.

0008/0002

Meaning and possible cause: Attempted connection to LIU port failed. An attempt to make a connection between a Customer Data Spooling agent and an APIO port has failed.

Recommended action: Stop all spooling activity, reboot the APIO port's LIU, the Customer Data Spooling PRU and the Data Spooling Manager PRU. Restart spooling.

0008/0003

Meaning and possible cause: The connection has been cut between a Customer Data Spooling agent and an APIO port.

Recommended action: Check the job queue to verify that the spool job was scheduled. If the spool job was interactive, the job may be restarted after a four minute reset interval.

0008/0004

Meaning and possible cause: LIU port unable to get high signals.

Recommended action: Check the following connections:

1) DNC: APIO port to RS232 cable; RS232 cable to modem; modem to telephone line
2) Remote site: telephone line to modem; modem to RS232 cable; RS232 cable to receiving device.

Also check if the remote site remains dialed up to the DNC.

Table 3-A (continued)
Data spooling agent subsystem messages

0008/0005

Meaning and possible cause: Spool job for LIU port transmission suspended. XOFF flow control character was received. This message most likely occurs when an XOFF flow control character was received from the remote receiving device. This message will be generated after five minutes of receiving the XOFF signal and will repeat every thirty minutes after that. This interval is configurable should a different interval be required.

Recommended action: To resume transmission, the X0N character 'CTRL-Q' must be sent from the remote premise receiving device.

000D/0001

Meaning and possible cause: The time specification contained in a scheduled job request was invalid. This log occurs when the SMDR spool request contained non-numeric data in a time range specification.

Recommended action: Redefine the spool job timetable with an accurate time specification to reschedule the job.

0017/0001

Meaning and possible cause: The spool job failed to make a translation file mapping from the customer group interactive login parameter to a numerical value.

Recommended action: Either the parameter was entered incorrectly or the customer group name does not exist in the translation file.

001F/0001

Meaning and possible cause: Unable to change status of spooled file from unsent to sent. This message occurs if there is a problem communicating with the DNC File Manager PRU.

Recommended action: Check the status of the File Manager and put it into service if it is down.

0021/0001

Meaning and possible cause: This message indicates that a check of the communication control signals has passed, and that the transmission of SMDR data is commencing or re-commencing for the specified LIU port.

Recommended action: No action is required.

Table 3-A (continued)
Data spooling agent subsystem messages

0021/0002

Meaning and possible cause: A connection has been made between a Customer Data Spooling agent and an APIO port. Feature data transmission will now commence when a control signal check has been made.

Recommended action: No action is required.

0021/0003

Meaning and possible cause: This message signifies that a translation file has been successfully spooled for a specified customer and node.

Recommended action: No action is required.

0021/0004

Meaning and possible cause: This message indicates whether the preprocessing feature for the current spool job is enabled or disabled.

Recommended action: No action is required.

0021/0005

Meaning and possible cause: This message signifies that a data file has been successfully spooled. Also the start and stop time of the file is displayed.

Recommended action: No action is required.

0021/0006

Meaning and possible cause: This message signifies, for a customer with pre-processing enabled, that a translation file has been encountered.

Recommended action: No action is required.

0023/0001

Meaning and possible cause: This message occurs when SMDR masking was enabled but a problem developed in attempting to read the DNC Mask Table.

Recommended action: If masking is not required, then disable it in the Customer Data Spooler Init File. Otherwise, ensure that the Mask Table is datafilled.

Data spooler manager subsystem

The Data Spooler Manager subsystem oversees and coordinates all instances of the Data Spooler subsystem. The log messages associated with the Data Spooler Manager subsystem are listed in Table 3-B.

Table 3-B
Data spooler manager subsystem messages

0007/0002

Meaning and possible cause: The Data Spooling Manager (SS) PRU failed to read initialization data successfully from the specified SDM table. This may have occurred because the specified table is empty or corresponding data files are corrupt. The SS PRU will not load successfully if this problem persists.

Recommended action: Verify by way of the SDM Table Editor that the specified SDM table exists and that the datafill for the table is correct. Recommended datafill values are documented in the BNM Release Notes. If the problem persists, restore a previous SD directory to the machine and repeat the process again.

0008/0001

Meaning and possible cause: During an interactive logon session, the DNC was unable to transmit out the APIO port.

Recommended action: Stop all spooling activity, reboot the APIO port's LIU, the Customer Data Spooling PRU, and the Data Spooling Manager.

000D/0001

Recommended action: Meaning and possible cause: A customer has specified a feature data type to be Spooled which is not supported. This occurred during an interactive log on attempt. Only SMDR data can be spooled at present.

Enter SMDR as the data type during the next interactive log on attempt.

0011/0001

Meaning and possible cause: The Spooling Supervisor PRU was unable to open the BNM Node Table. Either the table is missing or there is a disk problem.

Recommended action: Inspect the BNM Node Table. Datafill it if it is empty, otherwise, reboot the DNC system.

Table 3-B (continued)
Data spooler manager subsystem messages

0011/0002

Meaning and possible cause: The “location” interactive input parameter for Data Spooling did not match any entry in the BNM Node Table.

Recommended action: Check the input parameter against the BNM Node Table and retry.

001D/0001

Meaning and possible cause: There is a spool job already in progress which is transmitting the specified customer's feature data. There can only be one active spool job per customer.

Recommended action: Wait for the current spool job to finish before retrying, or try again later.

0020/0005

Meaning and possible cause: A mismatch exists between the port address for a customer, as specified in the BNM table entry, and the list of available ports, as indicated by entries in the SDM table 'DS PORTS-UD'.

Recommended action: Change the BNM table port address to one of the available spooling port addresses and then reboot the Data Spooler Manager. Alternatively, add the specific customer port address to the list of available port addresses and then reboot the Data Spooler Manager. All available spooling port addresses must be defined in the SDM table 'DS PORTS-UD'.

0022/0001

Meaning and possible cause: Unable to send spooling parameters to Application Scheduler via interactive log on.

Recommended action: Reboot the DNC Scheduler and retry.

0022/0002

Meaning and possible cause: An error occurred with the DNC Scheduler PRU.

Recommended action: Reboot the DNC Scheduler PRU and retry.

Table 3-B (continued)
Data spooler manager subsystem messages

0027/0001

Meaning and possible cause: There is a spool job already running on the specified port. There can be only one active job running on an APIO port at any one time.

Recommended action: Wait for the current spool job to finish before retrying, or try again later. If problem persists, verify BNM Customer Table datafill. The conflicting customers should be using different User Ports.

0027/0002

Meaning and possible cause: This message occurs when a request is denied to start a spool job on the specified port. According to the DNC Customer Table, the specified customer has either a different Spooling port address datafilled, or the customer has no Spooling port address datafilled (i.e. all zeros) and another customer has the specified port address datafilled.

Recommended action: Correct the DNC Customer Table port assignments and retry.

0027/0003

Meaning and possible cause: A customer attempting to log on remotely (interactively) to the DNC Spooling feature has entered an invalid password.

Recommended action: If the spooling feature is running on the DNC-500, obtain the correct password from the Telco, and retry (the password is datafilled in the DNC Customer Table).

0027/0004

Meaning and possible cause: A customer attempting to logon remotely to the DNC Spooling feature has exceeded a preset limit of log on attempts.

Recommended action: Contact the customer assigned to the specific port and ensure that they have the correct password (datafilled in the DNC-500 Customer Table).

Table 3-B (continued)
Data spooler manager subsystem messages

0027/0005

Meaning and possible cause: An interactive spool job was requested by the specified customer at the remote port but it cannot be performed. This is because the maximum number of spool jobs are already in progress.

The interactive spool job can only be initiated successfully when the number of concurrent spool jobs is less than the permitted maximum. The customer must try again later.

Database uploading subsystem

The Database Uploading subsystem is used with the Station Administration feature of BNM. The log messages associated with the Database Uploading subsystem are listed in Table 3-C.

Table 3-C
Database uploading subsystem messages

0001/0001

Meaning and possible cause: The uploading of the specified customer group on the selected DMS-100 switch for the stated customer is being started.

Recommended action: No action is required.

0001/0002

Meaning and possible cause: The DNC is just starting to parse the QCUST file which was received from a specific DMS-100 switch for specific customer and customer group.

Recommended action: No action is required.

0002/0001

Meaning and possible cause: The Recent Change file was successfully updated for the named customer. This log is generated after the recent change file is committed.

Recommended action: No action is required.

0005/0001

Meaning and possible cause: The Recent Change file was not successfully updated for the named customer. The result of the error is stated. This log is generated after the recent change file has been committed; the changes are lost and cannot be recovered.

Recommended action: Check the status of the disk or the file server, or both.

0005/0002

Meaning and possible cause: The output audit file for the specified customer cannot be opened.

Recommended action: Verify that the fileserver name is spelled correctly in the SDM Table SARCINIT-NO. If it is spelled correctly, check the status of the fileserver.

Table 3-C (continued)
Database uploading subsystem messages

0005/0003

Meaning and possible cause: The output file for the specified customer cannot be opened.

Recommended action: Check the status of the fileserver.

0005/0004

Meaning and possible cause: The Database Upload PRU was courtesied down during an audit operation, and the audit operation is aborted.

Recommended action: Ensure that the Database Upload PRU is working, and then repeat the audit operation.

0006/0001

Meaning and possible cause: A tasking error occurred when the DNC tried to update its database (using a non-committing update) on the specified customer, customer group and switch. Possible causes are the failure of the SA Database Task (DT), or the Database Supervisor (DL).

Recommended action: All database tasks must be in a running state. The user can set these two tasks to a running state (if they are not in this state) by entering the maintenance section of the Administration Services entry on the menu and courtesying down, and then putting these tasks back into service.

0006/0002

Meaning and possible cause: The identified tasking error occurred in the DT PRU when retrieving the database, causing the audit operation to be aborted.

Recommended action: Ensure that the SA Database Task (DT) PRU is working. If it is, and the error persists, courtesy down all DT PRUs and the Database Supervisor (DL) PRU. Then return all these PRUs to service, starting with the DL PRU, and attempt to retrieve the database again.

000D/0001

Meaning and possible cause: A key set station has been encountered where no DN was provided for key 1. This is likely a result of the prime DN being in another customer group.

Recommended action: This station data is rejected to prevent misleading information from being stored. No action is required.

Table 3-C (continued)
Database uploading subsystem messages

000E/0001

Meaning and possible cause: The user tried to upload a customer group which is not associated with the specified customer.

Recommended action: The user should check or modify, or both, the 'Customer Groups Table' screen, which is accessed through the 'BNM Tables' screen and the 'Facility Ownership Tables' screen, to ensure that the correct customer group is uploaded.

002A/0001

Meaning and possible cause: The selected customer group on the specified switch has already been uploaded for this customer.

Recommended action: No action is required.

002A/0002

Meaning and possible cause: Data is still being uploaded from the switch. It specifies the number of lines of data which have been uploaded in this particular customer group.

Recommended action: No action is required.

002A/0003

Meaning and possible cause: The DNC has requested that information about the specified customer group be uploaded, from the specified switch, the maximum allowable number of times. In each case, no response was received from the switch. This means that the DNC cannot communicate correctly with the specified switch.

Recommended action: The user should verify that the communication link is functioning correctly. This error will also occur if the switch was rebooted when the DNC was attempting to talk to it.

002A/0004

Meaning and possible cause: The data which was uploaded from the switch is still being parsed. It specifies the number of stations which have been parsed so far.

Recommended action: No action is required.

Table 3-C (continued)
Database uploading subsystem messages

002A/0005

Meaning and possible cause: All the information belonging to the specified customer group on the selected switch has been successfully parsed.

Recommended action: No action is required.

002A/0006

Meaning and possible cause: This message informs the Operating Company user that the maximum usage limits of a specific feature, for the specified customer on the specified switch, have been increased to a new specified value .

Recommended action: No action is required.

002A/0007

Meaning and possible cause: An error was encountered when trying to retrieve the specified type of feature limit records from the specified customer on the stated DMS-100 switch. One cause might be that either the SA Database Task (DT), or the Database Supervisor (DL), failed.

Recommended action: Put these tasks in a working state by accessing the maintenance screen and pressing the <Put into Service> softkey if either or both tasks are not in working state. If the wrong number of records were retrieved, a mismatch in the load build is a possibility. Retry to upload when the problem is solved.

002A/0008

Meaning and possible cause: The switch has returned an error message to the DNC. This can be caused by a datafill problem on the DMS-100 switch or by attempting to upload an invalid group.

Recommended action: Check the DMS-100 switch for correct datafill, using the specific error message to provide more information.

002A/0009

Meaning and possible cause: The DNC encountered an incorrect record type in the QCUST file which was received from the specified switch for the specified customer and customer group. This might occur because of the link between the DNC and the switch garbling information, or an incompatibility between the software versions running on the DNC and DMS-100 switch.

Recommended action: Check the DMS-100 switch to DNC link connections and the software versions on both the DMS-100 switch and the DNC-500.

Table 3-C (continued)
Database uploading subsystem messages

002A/000A

Meaning and possible cause: The DNC encountered an error in one of the stations whose data was received from the specified DMS-100 switch for a particular customer and customer group. This might be the result of information being garbled in the link during transfer from the DMS-100 switch to the DNC. Also, there might be a software incompatibility between the software versions running on the switch and the DNC.

Recommended action: Check the DMS-100 switch to DNC link connections and the software versions on both the DMS-100 switch and the DNC-500.

002A/000B

Meaning and possible cause: This log message displays the quantity of stations that were successfully uploaded, and the database updated, in the current database upload.

Recommended action: No action is required.

002A/000C

Meaning and possible cause: The database for the specified customer could not be opened due to a condition that was experienced by the identified database task. The fault caused the audit process to be aborted.

Recommended action: Ensure that the SA Database Task (DT) PRU is working. If it is, and if the error persists, courtesy down all DT PRUs and the Database Supervisor (DL) PRU. Then return all these PRUs to service, starting with the DL PRU, and attempt to open the database again.

002A/000D

Meaning and possible cause: The specified customer's database could not be closed.

Recommended action: Check previous log messages for an associated error condition. If no error is identified, close the database by courtesying down all DT PRUs and the DL PRU. When the database is closed, return all these PRUs to service, starting with the DL PRU.

Table 3-C (continued)
Database uploading subsystem messages

002A/000E

Meaning and possible cause: The specified customer's database could not be read.

Recommended action: Ensure that the proper database was uploaded correctly. If the database was uploaded correctly, then access the database and make sure that it contains customer information.

002A/000F

Meaning and possible cause: This log is generated to indicate the number of outdated service order (SO) history blocks that have been deleted from the station administration database.

Recommended action: No action is required.

002A/0010

Meaning and possible cause: This log is generated when outdated Service Order (SO) History records fail to be deleted from the Station Administration database. Database synchronization will continue by way of the Station Administration Database Synchronization (SADBSYNC) job.

Recommended action: In SAS maintenance. ensure that the Database Supervisor (DL) and the SA Database Task (DT) PRUs are working (ref: 450-1011-301). Check also for other signs of database problems with the SADBSYNC.

Disk utilization and monitor subsystem

The Disk Utilization and Monitor subsystem permits the disk utilization of application software to be monitored and controlled. The feature uses the SDM Table Editor to define disk utilization levels for:
-SMDR DATA Collection
-Station Administration

In addition to defining the disk utilization levels for the applications, the disk consumption for each application is monitored at a regular time interval.

Alarms are generated, or write-protection is set to the data directories of the application, if the disk consumption of the application exceeds the defined threshold level.

The log messages associated with the Disk Utilization and Monitor subsystem are listed in Table 3-D.

Table 3-D
Disk utilization and monitor subsystem messages

0001/0001

Meaning and possible cause: The Disk Monitoring PRU has initialized successfully.

Recommended action: No action is required.

0001/0002

Meaning and possible cause: Disk Monitoring is in process. Disk OMs are obtained from all subdirectories of the data directories for each feature.

Recommended action: No action is required.

0001/0003

Meaning and possible cause: Disk Monitoring is completed.

Recommended action: No action is required.

0005/0001

Meaning and possible cause: Unable to read from Table DMOP, or from Table DMUDF, because of an input/output error. The Disk Monitoring process is terminated if Table DMOP cannot be read.

Recommended action: Verify that Tables DMOP and DMUDF exist and that they contain data.

Table 3-D (continued)
Disk utilization and monitor subsystem messages

0005/0002

Meaning and possible cause: Write Protect of the named customer's data directory for the specified feature could not be cleared. This report is generated when one or more input/output errors occurred during the removal of write protection for the feature directories.

Recommended action: Repeat the Write Protection removal process, taking care to input correctly.

0007/0001

Meaning and possible cause: Disk Monitoring PRU unable to initialize. This is caused by one of the following conditions:

- Table DMINIT could not be read
- sufficient memory could not be obtained
- the OM subsystem tasks could not be located.

Recommended action: Look at file DMINIT to see if it exists, if it is configured properly, and contains data. Make sure that the OM Collector PRU is in the working state.

000D/0001

Meaning and possible cause: This message is generated when the Disk Monitoring process determines that the depth of the named data directory for the specified feature is greater than 3. The condition causes the Disk Monitoring feature to abort.

Recommended action: Define new features for each of the subdirectories of the current data directory in Table DMUDF.

0020/0001

Meaning and possible cause: Unable to construct the pathname for the specified feature of the named customer. This is because the customer does not have SMDR datatype or Station Administration Virus database.

Recommended action: Verify the datafill in Table DMOP for accuracy and completeness.

Table 3-D (continued)
Disk utilization and monitor subsystem messages

0020/0002

Meaning and possible cause: The named directory for the specified feature could not be found in Table DMUDF.

Recommended action: Verify the datafill in Table DMUDF for accuracy and completeness.

0020/0003

Meaning and possible cause: The named directory for the specified feature must not be monitored. Because some directories are not permitted to be monitored, user defined features must not include these directories.

Recommended action: Delete the feature, whose data directory is the directory indicated, from Table DMOP and Table DMUDF.

0020/0004

Meaning and possible cause: Invalid data was received from Table DMOP or Table DMUDF, because the data in the table is incorrect.

Recommended action: Edit the data in Table DMOP or Table DMUDF, or both, so that the following requirements are abided by:

- the value of parameter Dir_WP_Size is greater than the value of parameter Dir_Al_Size
- the value in field Customer of Table DMOP must not be blank if field Feature is datafilled Station Administration (SA) or SMDR (SM).

0027/0001

Meaning and possible cause: Write Protect is set to the identified data directory for the named customer's specified feature. This is because the total directory size exceeds the value of the parameter Dir_WP_Size that is defined for the feature in Table DMOP.

Recommended action: The parameter DIR_WP_Size that is defined for the specified feature in Table DMOP must be redefined to value -1, or to a higher value than the current definition. Then files must be removed to reduce the size of the directory.

0027/0002

Meaning and possible cause: Write Protection has been removed from the named customer's data directories for the feature specified.

Recommended action: No action is required.

Table 3-D (continued)
Disk utilization and monitor subsystem messages

002B/0001

Meaning and possible cause: The named customer's data directories for the specified feature exceeds the maximum allowable size specified by the parameter Dir_AL_Size in Table DMOP.

Recommended action: Remove files from the directories, or edit Table DMOP to increase the value of parameter Dir_AL_Size for the specified feature.

002B/0002

Meaning and possible cause: The quantity of files in the named customer's data directories for the specified feature exceeds the maximum allowable size specified by the parameter #file_AL in Table DMOP.

Recommended action: Remove files from the directories, or edit Table DMOP to increase the value of parameter #file_AL for the specified feature.

002D/0003

Meaning and possible cause: The directory size alarm has been cleared for the named customer's specified feature.

Recommended action: No action is required.

002D/0004

Meaning and possible cause: The file population alarm has been cleared for the named customer's specified feature.

Recommended action: No action is required.

002D/0005

Meaning and possible cause: An error occurred in obtaining disk OMs for the feature indicated. The error is very likely caused by an input/output error during the procedure to the OMs.

Recommended action: Repeat the procedure, taking care to input accurately. If the fault persists, verify that the directories for the feature exist.

DVIX system

The DVIX is a multi-user, multi-tasking. operating system that is used in conjunction with the XMS operating system for DNC applications.

Those error numbers designated by '000?' in the DVIX log message table (see Table 3-E) are variable between/0001 and/0003 inclusive, depending on the level of severity for the log message.

Note:

'0001' corresponds to a critical error, '0002' corresponds to a major error, and '0003' corresponds to a minor error.

Table 3-E
DVIX system messages

0062/000?

Log message: DVIX:Open failed for <filename> Unix error <text>

Meaning and recommended action: This can be a critical, major, or minor error situation, depending on the importance of the file. A DVIX error occurred because the named file cannot be opened. The displayed text provides details of the cause of the error.

Action: Verify that the file exists. If it does, verify the file access privileges.

0062/000?

Log message: DVIX:Read failed for <filename> Unix error <text>

Meaning and recommended action: This can be a critical, major, or minor error situation, depending on the importance of the file. A DVIX error occurred because the named file cannot be read. The displayed text provides details of the cause of the error.

Action: Verify the file access privileges.

0062/000?

Log message: DVIX:Write failed for <filename> Unix error <text>

Meaning and recommended action: This can be a critical, major, or minor error situation, depending on the importance of the file. A DVIX error occurred because the named file cannot be written to. The displayed text provides details of the cause of the error.

Action: Verify the file access privileges.

Table 3-E (continued)
DVIX system messages

0062/000?

Log message: DVIX:Cd failed for <directory name> Unix error <text>

Meaning and recommended action: This can be a critical, major, or minor error situation, depending on the importance of the directory. A DVIX error occurred because the specified directory name cannot be changed. The displayed text provides details of the cause of the error.

Action: Verify that the directory name exists.

0062/000?

Log message: DVIX:Stat failed for <filename> Unix error <text>.

Meaning and recommended action: This can be a critical, major, or minor error situation, depending on the importance of the file. A DVIX error occurred because the Stat failed for the specified file. The displayed text provides details of the cause of the error.

Action: Verify that the file exists. Then verify the file access privileges.

0062/000?

Log message: DVIX:Link failed for <filename> Unix error <text>

Meaning and recommended action: This can be a critical, major, or minor error situation, depending on the importance of the file. A DVIX error occurred because the attempt to link the specified file failed. The displayed text provides details of the cause of the error.

Action: Verify the access privileges to the parent directory.

0062/000?

DVIX:Unlink failed for <filename> Unix error <text>

Meaning and recommended action: This can be a critical, major, or minor error situation, depending on the importance of the file. A DVIX error occurred because the attempt to unlink the specified file failed. The displayed text provides details of the cause of the error.

Action: Verify the file access privileges.

Table 3-E (continued)
DVIX system messages

0062/000?

DVIX:Memory Allocation <process> failed Unix error <text>

Meaning and recommended action: This is a critical error situation. A DVIX error occurred because system memory space could not be allocated. The displayed text provides details of the cause of the error.

Action: Solve the problem with the RAM.

0062/0001

DVIX:oct1 call failed Device <name> Unix reason <text>

Meaning and recommended action: This is a critical error situation. A DVIX error occurred because an attempt to gain control of the I/O device failed. The displayed text provides details of the cause of the error.

Action: Verify the access privileges to the specified device.

0062/0003

DVIX:Unknown message <number> for <text>

Meaning and recommended action: This is a minor error situation. A DVIX error occurred, causing the number of an unknown message to be displayed. The text of the message is displayed.

Action: Refer this software problem to the system support group.

DMS-100 interface subsystem

The DMS-100 Interface subsystem oversees all connections to the nodes. The log messages associated with this subsystem are listed in Table 3-F.

Table 3-F
DMS-100 interface subsystem messages

0003/0001

Meaning and possible cause: A logon to the specified DMS-100 switch is in progress. The information returned from the DMS-100 switch can consist of a status or error message.

Recommended action: Analyze the message from the DMS-100 switch to determine if there is a fault, and if so, the course of action.

0008/0001

Meaning and possible cause: The DNC encountered an error during communication with the DMS-100 switch.

Recommended action: The course of action depends on the error type returned. For example, a “resource error” means that the DMS-100 switch cannot accept any more logons, and the user must wait until someone logs off from the DMS-100 switch before attempting to logon again.

4. Log messages

File manager subsystem

The File Manager subsystem oversees all file management in a DNC system. It maintains cross-reference files which supplement the basic customer data directory structure. For each data file, the File Manager maintains a listing of associated files (for example, translation files for SMDR or OM data), a record of file status, and the time period spanned by the data contained in the file. Other software subsystems can register files with the File Manager and update their status, or obtain information from the files keyed to specified search criteria.

The log messages associated with the File Manager subsystem are listed in Table 4-A.

Table 4-A
File manager subsystem messages

0001/0001

Meaning and possible cause: The File Manager PRU has been successfully initialized and is now in a working state.

Recommended action: No action is required.

0005/0001

Meaning and possible cause: An I/O error has occurred while performing a file operation on an Xref file. This error may be caused by the disk being full.

Recommended action: Perform a disk audit. If the problem persists, stop all user initiated jobs in the DNC, and reboot the File Manager PRU. If this fails, reboot the DNC system.

Table 4-A (continued)
File manager subsystem messages

0005/0002

Meaning and possible cause: An I/O error has occurred while performing a file operation on a file-sequence-number file. This error may be caused by the disk being full.

Recommended action: Perform a disk audit. If the problem persists, stop all user initiated jobs in the DNC, and reboot the File Manager PRU. If this fails, reboot the DNC system.

0006/0001

Meaning and possible cause: The File Manager is unable to send tuple data obtained from the Xref file back to the user as requested.

Recommended action: Stop all user initiated jobs in the DNC and reboot the File Manager PRU.

0007/0001

Meaning and possible cause: File Manager was unable to initiate the Request task.

Recommended action: Stop all user initiated jobs in the DNC and reboot the File Manager PRU. If this fails, reboot the SRU the File Manager is resident on.

0007/0002

Meaning and possible cause: An error occurred while the File Manager's main task was attempting to restart one of its child tasks.

Recommended action: File Manager PRU reboots automatically. Ensure that the PRU achieves a working state.

000A/0001

Meaning and possible cause: File Manager was unable to obtain memory required to initiate the Request task.

Recommended action: Stop all File Manager related activity (for instance Data Collection) and reboot the File Manager PRU.

000D/0007

Meaning and possible cause: A feature attempted to update a data file which was not defined in the Xref file.

Recommended action: Inform NT personnel of this event.

Table 4-A (continued)
File manager subsystem messages

000D/0008

Meaning and possible cause: A feature attempted to change the transmit status of the data file to an invalid value.

Recommended action: Inform NT personnel of this event.

0013/0001

Meaning and possible cause: An error occurred while attempting to obtain the feature data types for the specified customer.

Recommended action: Stop all data collection and reboot the File Manager PRU. If problem persists, then reboot the DNC system.

0021/0001

Meaning and possible cause: This is a warning message indicating that SMDR, OM, ATT, KT, CMAP, and AMA directories older than yymmdd, yymmdd, yymmdd, yymmdd, yymmdd, and yymmdd respectively are being deleted. The BNM file manager is removing (from the disk) feature data that has expired according to the configurable retention dates for each data type. It is possible that other log error messages may occur if this job is running at the same time while collection of old feature data is in operation (e.g. an on-demand transfer).

Recommended action: None.

0024/0001

Meaning and possible cause: An exception error was encountered for one of the File Manager's tasks.

Recommended action: If the File Manager PRU does not reboot automatically within five minutes, then stop all data collection and reboot the File Manager PRU.

KT data collector subsystem

The Killer Trunk (KT) Data Collector Subsystem collects DMS-100 reports on trunk irregularities and partitions them by customer group for customer examination. The log messages associated with this subsystem are listed in Table 4-B.

Table 4-B
KT data collector subsystem messages

0005/0001

Meaning and possible cause: A file was not closed after committing collected data to it. The operation has been aborted. This can be caused by the disk being full.

Recommended action: Perform a disk audit. If the problem persists, stop KT data collection from all switches and reboot the KT Collector PRU. If the problem persists, reboot the DNC system.

0005/0002

Meaning and possible cause: A fatal I/O error occurred when writing collected data to file. When the KT collector fails to write collected data to file, the collector aborts.

Recommended action: This can be caused by disk being full. Perform a disk audit. If the problem persists, stop KT data collection from all switches and reboot the KT Collector PRU. If problem still persists, reboot the DNC system.

0005/0003

Meaning and possible cause: The KT collector failed to open the EBCDIC to ASCII conversion file for processing KT data.

Recommended action: The job will be rescheduled. If the problem persists, stop KT data collection from all switches and reboot the KT Collector PRU. If problem still persists, reboot the DNC system.

0005/0004

Meaning and possible cause: The KT collector failed to close the EBCDIC to ASCII conversion file when processing KT data.

Recommended action: If the problem persists, stop KT data collection from all switches and reboot the KT Collector PRU. If problem still persists, reboot the DNC system. The job will be rescheduled.

Table 4-B (continued)
KT data collector subsystem messages

0005/0005

Meaning and possible cause: The KT collector failed to read the EBCDIC to ASCII conversion file, for processing KT data.

Recommended action: If the problem persists, stop KT data collection from all switches and reboot the KT Collector PRU. If problem still persists, reboot the DNC system. The job will be rescheduled.

0009/0001

Meaning and possible cause: This log is associated with DMS rotate for KT volume.

Recommended action: If the DMS rotate for KT was requested, and successful, no further action is required. If the DMS rotate for KT was not requested, or not successful, inform DMS-100 personnel of this event.

000D/0001

Meaning and possible cause: An invalid system event record, other than type 1 was received.

Recommended action: Dump this data at the originating DMS-100 switch to determine if the DMS-100 is in error.

000D/0002

Meaning and possible cause: No block information record in data was received. Each KT block of data received from DMS is expected to contain a block information record as the first record in the block. This message is logged if the collector fails to detect such record.

Recommended action: Dump this data at the originating DMS-100 switch to determine if the DMS-100 switch is in error.

000D/0003

Meaning and possible cause: The KT report collected was not in sequence with the previous KT Report collected. The job will be rescheduled.

Recommended action: No action is required.

Table 4-B (continued)
KT data collector subsystem messages

000D/0004

Meaning and possible cause: End report sequence does not match with current report sequence number. Each KT report received from the DMS-100 switch starts with a Report record and ends with an End record. If the report sequence number contained in the End record does not match the value specified in the Report record, this message is shown.

Recommended action: If problem persists when job is rescheduled, stop KT collections from all switches. Reboot the KT collector PRU. Restart data collections. If this fails to correct the problem, stop collections of all datatypes from all switches, reboot the Communication Server and restart all data collections.

000D/0005

Meaning and possible cause: An invalid block was received. The actual length of all records in block does not match value specified in block header. If the actual length of the KT data block collected does not match the value specified in the block header, this message is shown.

Recommended action: If problem persists when the job is rescheduled, stop KT collections from all switches. Reboot the KT collector PRU and restart collections. If this fails to correct the problem, stop collections of all datatypes from all switches, reboot the Communication Server and restart all data collections.

0020/0001

Meaning and possible cause: All customers and the Telco are not datafilled to collect data. When both the telco and all the customers are not datafilled to collect KT data, and a KT collection is started, this warning message will be shown.

Recommended action: Enter correct datafill into the BNM Tables. Restart KT collection.

Network admin manager subsystem

The Network Admin Manager subsystem at a DNC-500 supports the following types of changes to the Network Class-of-Service number on a DMS-100 Centrex:

- incoming Meridian Digital Centrex (MDC) trunk groups
- the incoming side of MDC two-way trunk groups
- changes to the routing plans of routes.

The log messages associated with the Network Admin Manager subsystem are listed in Table 4-C.

Table 4-C
Network admin manager subsystem messages

Note: Logs 001C/0001, 0021/0001, and 0021/0002 include a Node Name in their display. The remaining logs do not.

001C/0001

Meaning and possible cause: One of either the Communication Server PRU or the Network Admin Manager PRU cannot be located by the other PRU.

Recommended action: Reboot the Communication Server PRU. The Task result and Error Result data is for NT internal use; the data should be ignored by the customer.

0021/0001

Meaning and possible cause: A request that was sent by the NCOS Change feature, or the Routing Changes feature, was completed successfully.

Recommended action: No action is required.

0021/0002

Meaning and possible cause: The Network Admin feature has successfully logged on to the network node.

Recommended action: No action is required.

0021/0003

Meaning and possible cause: The The Network Administration feature logged off the network node when the timer in the Network Admin node task expired.

Recommended action: No action is required.

Table 4-C (continued)
Network admin manager subsystem messages

0021/0004

Meaning and possible cause: A request that was sent by NCOS Changes, or by Routing Changes, failed because one of the following does not exist on the DMS-100 switch:

1. The route reference
2. The plan reference
3. The NCOS reference

Recommended action: Check both the DNC-500 and the DMS-100 datafill for accuracy.

Table 4-C (continued)
Network admin manager subsystem messages

0021/0006

Meaning and possible cause: A request that was sent by the NCOS Changes feature, or the Routing Changes feature, failed. One of the following reasons is displayed:

- Trunk Group does not exist on node
- Tuple Format error
- TC error
- Decode error
- Encode error
- Image Dump in progress
- DNC-500 local timer expired
- A Remote Operations communication error occurred
- An unknown error occurred in the network node

Recommended action: Action required depends on the fault type:

Check the datafill on the DMS side.

There is a datafill error, likely a record in DMS Table IBNRTE has a wrong format. If the feature is NCOS Changes, then the trunk is not an incoming IBN trunk, or not the incoming side of a two way IBN trunk.

Check the datafill alignment between the DMS switch and the BNM.

Wait until the image dump is completed, then retry the request.

Retry the request.

Check the status of the Communications Server PRU. If status is not “working,” reboot it.

Retry the request.

Network connection manager subsystem

The Network Connection Manager Subsystem is used to expand the BNM network by configuring more communication servers. This manager interfaces the BNM application and the communication servers to assign a server to the application.

The log messages associated with the Network Connection Manager subsystem are listed in Table 4-D.

Table 4-D
Network connection manager subsystem messages

0002/0001

Meaning and possible cause: The specified customer has successfully logged on to the system.

Recommended action: No action is required.

0002/0002

Meaning and possible cause: One of the components of the pathname is invalid. The candidate components are node, accumulation interval, data type, data subtype.

Recommended action: To be determined.

0002/0003

Meaning and possible cause: The specified customer has successfully logged off the system.

Recommended action: No action is required.

0006/0001

Meaning and possible cause: A customer that is logged on to the system has requested a remote listfile. The request failed because the Network Connection Manager is unable to start a listfile task.

Recommended action: If the problem persists, courtesy down the Network Connection Manager PRU, and then return it to service again.

0006/0002

Meaning and possible cause: A listfile task was in process and ended unexpectedly.

Recommended action: Contact NT to interpret the information that is contained in the log report so that the appropriate course of action can be determined.

Table 4-D (continued)
Network connection manager subsystem messages

0007/0001

Meaning and possible cause: Because there was an error in reading the run time parameters, the system used default values where required.

Recommended action: Contact NT to check the initialization date of the Network Manager PRU.

0008/0001

Meaning and possible cause: A customer that is logged on to the system has requested the start of data collection, when the session is in an invalid state for the request.

Recommended action: Usually no action is required. However, if the problem is experienced by a customer that is authorized to collect the data, the customer should log off the system, then log on again and retry the request.

000A/0001

Meaning and possible cause: Unable to obtain memory for the data structures. The application is aborted.

Recommended action: Either reduce the quantity of PRUs that are located on this SRU, or move the Network Connection Manager PRU to a larger SRU. If the problem still persists, contact NT.

0012/0001

Meaning and possible cause: A customer's log on attempt failed because the password that was used is invalid.

Recommended action: Check the Customer Table to compare the password that was entered with the datafilled information.

0012/0002

Meaning and possible cause: A customer attempt to log on to the system failed because the Customer Table did not locate the data that was entered.

Recommended action: Check that the customer name is properly datafilled in the Customer Table.

Table 4-D (continued)
Network connection manager subsystem messages

0013/0001

Meaning and possible cause: A request by a specified customer at a specified location for a demand transfer of a specified data type was disallowed because the Customer Feature Profile Table did not recognize the request as valid.

Recommended action: Check the Customer Feature Profile Table to assure that the information for the specified customer is properly datafilled.

001F/0001

Meaning and possible cause: A remote listfile operation that was being performed by a customer that is logged on to the system failed because of a system problem.

Recommended action: If the problem persists the customer should exit to the BNM Main Menu, and then retry the listfile request.

0027/0001

Meaning and possible cause: The system was unable to start a timer task. However, the application continued to run.

Recommended action: If this message appears frequently, contact NT.

0027/0002

Meaning and possible cause: When a customer requested a remote listfile, the request was refused because the maximum allowable quantity of concurrent requests had been previously reached. The maximum allowable quantity of concurrent requests is displayed.

Recommended action: Contact the NT if an extension to the maximum allowable quantity of concurrent requests is required.

0027/0003

Meaning and possible cause: When a customer requested a log on, the request was refused because the maximum allowable quantity of incoming sessions had been previously reached. The maximum allowable quantity of concurrent incoming sessions is displayed.

Recommended action: Contact the NT if an extension to the maximum allowable quantity of concurrent incoming sessions is required.

OM data collector subsystem

The OM Data Collector subsystem manages the transfer of OM data from the node to the DNC-500. The OM Data Collector creates and commits one file for each customer. The data in the file is for one collection period, and is drawn from a specific OM group on a specified switch. All of these files are registered with the File Manager subsystem. The log messages for this subsystem are listed in Table 4-E.

Table 4-E
OM data collector subsystem messages

0005/0001

Meaning and possible cause: A data block could not be read from the specified file.

Recommended action: Stop all OM data collection and reboot the OM Data Collector PRU. If the problem persists, reboot the DNC system.

0005/0002

Meaning and possible cause: An I/O problem occurred in determining the state of the specified file.

Recommended action: Courtesy down the collector and return it to service. If problem persists, reboot the system.

0005/0003

Meaning and possible cause: An I/O problem was encountered opening a file for appending.

Recommended action: Courtesy down the collector and return it to service. If problem persists, reboot the system.

0005/0004

Meaning and possible cause: System could not create the specified directory.

Recommended action: Courtesy down the collector and return it to service. If this fails to correct the problem, reboot the system.

0005/0005

Meaning and possible cause: An I/O error occurred on the specified file.

Recommended action: Courtesy down the collector and return it to service. If this fails to correct the problem, reboot the system.

Table 4-E (continued)
OM data collector subsystem messages

0009/0001

Meaning and possible cause: Skipping to next record. Due to a restart on the DMS-100 switch, the OM collector will automatically skip records until the appropriate record is found to resynchronize with the DMS-100 switch.

Recommended action: No action is required.

0009/0002

Meaning and possible cause: DMS-100 Restart detected. Recovery was performed at the specified time. The DMS-100 switch performed a restart.

Recommended action: No action is required.

000A/0001

Meaning and possible cause: Difficulties were encountered while deallocating memory. The Memory Manager failed to release memory used by the OM collector.

Recommended action: Stop all OM collection and reboot the OM collector PRU. If the problem persists, reboot the associated SRU.

000B/0001

Meaning and possible cause: System could not delete obsolete recovery record. Collection continues. The most likely cause of this is an I/O problem.

Recommended action: If the report occurs frequently then contact an NT representative.

000B/0002

Meaning and possible cause: System was unable to increment recovery attempts in recovery records and will continue. The most likely cause is an I/O problem on the recovery file.

Recommended action: Data Collection will continue. No action is required.

000B/0003

Meaning and possible cause: System cannot start OM data collection due to recovery attempts for this file being exceeded.

Recommended action: Perform a manual rotate on the specified DMS-100 switch.

Table 4-E (continued)
OM data collector subsystem messages

000D/0001

Meaning and possible cause: Record or block length invalid. Corrupt data was received. The sum of the current record length and the current position in the block of records exceeds the total block length.

Recommended action: Dump this data on the specified DMS-100 switch to determine if it is in error.

000D/0002

Meaning and possible cause: Invalid record length. A negative record length was received.

Recommended action: Dump this data on the specified DMS-100 switch to determine if it is in error.

000D/0003

Meaning and possible cause: Invalid record number. Record number is not numeric.

Recommended action: Dump this data on the specified DMS-100 switch to determine if it is in error.

000D/0004

Meaning and possible cause: Logical block length is longer than physical length. Corrupt data is on the disk, or an I/O problem is present. The block length that was stored in block that was read from the disk is larger than the amount of data that was read.

Recommended action: Dump this data on the specified DMS-100 switch to determine if it is in error.

000D/0005

Meaning and possible cause: Invalid numeric field was received. A numeric field was expected but non-numeric data was received. The corrupt numeric field is displayed. Data collector will continue processing.

Recommended action: Dump this data on the specified DMS-100 switch to determine if it is in error.

Table 4-E (continued)
OM data collector subsystem messages

000D/0006

Meaning and possible cause: The system is skipping a DMS-100 OM class due to storage restriction or invalid data.

Recommended action: No action is required.

000D/0007

Meaning and possible cause: DMS-100 OM group skipped due to invalid group data. Corrupt data received. The DMS-100 OM group is ignored because its data is unidentifiable. Data collection will continue.

Recommended action: No action is required.

000D/0008

Meaning and possible cause: Corrupt data was received. The start time of the accumulation interval contained in the data is invalid. The collector defaults the start time to the stop time and continues processing.

Recommended action: No action is required.

000D/0009

Meaning and possible cause: An invalid facility definition record for group was received. A record is made that describes a facility containing invalid data. Collection continues.

Recommended action: No action is required.

000D/000A

Meaning and possible cause: Accumulation interval's stop time was invalid. Collection will skip this interval. The accumulation interval's stop time contained in the data is invalid. Data collection continues, starting with next accumulation interval.

Recommended action: No action is required.

000D/000B

Meaning and possible cause: Class header record received is too large for defined storage area. Received record length is specified. Corrupted data may be received.

Recommended action: If this message consistently appears across several different DMS-100 OM files, contact an NT representative.

Table 4-E (continued)
OM data collector subsystem messages

000D/000C

Meaning and possible cause: A local DMS-100 OM translation file format is invalid. Corrupt data is on the DNC disk.

Recommended action: Stop all OM collection and reboot the OM collector PRU. Restart collection.

000D/000D

Meaning and possible cause: System is skipping a DMS-100 OM class due to storage restriction or invalid data. The OM collector has a fixed size of storage set for OM class. A class number was received that was too big to fit into this space or was corrupt. The class is ignored and data collection continues.

Recommended action: No action is required.

000D/000E

Meaning and possible cause: Attempting to resynchronize, looking for specified records. The OM collector skips all records until one of the record type is found.

Recommended action: No action is required.

000D/000F

Meaning and possible cause: Invalid data was received. The DMS-100 OM group for this accumulation interval will be skipped. The DMS-100 OM data received is in an inappropriate format such that data partitioning cannot be done accurately. Data collection continues.

Recommended action: Ensure that OM related changes on the DMS-100 switch were done according to instructions in the DMS-100 publications.

000D 0010

Meaning and possible cause: Invalid data was received.

Recommended action: No action is required.

Table 4-E (continued)
OM data collector subsystem messages

000D 0011

Meaning and possible cause: Too much data was received for the DMS-100 OM group. System is saving created DNC files, and will skip excessive data.

Recommended action: Ensure that any OM related changes on DMS-100 were done according to instructions in the DMS-100 publications.

000D 0012

Meaning and possible cause: Some data has been skipped due to invalid data, but skipping has stopped and collection has resumed.

Recommended action: No action is required.

000D 0013

Meaning and possible cause: The sequence of data received is invalid.

Recommended action: No action is required.

000D 0014

Meaning and possible cause: An invalid block length was received. BNM will skip the block and continue. The OM collector will try to recover starting with next block of data.

Recommended action: Check following logs to verify that recovery has taken place.

000D 0015

Meaning and possible cause: The collector skipped blocks of the DMS-100 file to bypass corrupt data.

Recommended action: No action is required.

0010/0001

Meaning and possible cause: The Feature Data Table exceeds the maximum number of DMS-100 OM groups. The maximum number of OM subtypes supported by the OM collector has been exceeded.

Recommended action: Delete some data subtypes from the Feature data table and restart OM collection.

Table 4-E (continued)
OM data collector subsystem messages

0010/0002

Meaning and possible cause: The Feature Data Table does not contain any OM datatypes. The OM collector will only collect data if the Feature Data Table is datafilled with at least one OM subtype.

Recommended action: Datafill this table with all OM subtypes collected by customers and restart OM collection.

0010/0003

Meaning and possible cause: Feature Data Table cannot be read. Records will be skipped.

Recommended action: If this persists when the job is rescheduled, reboot the OM collector and restart data collection.

001C/0001

Meaning and possible cause: Difficulties were encountered while communicating with the local communication service. The collector failed to obtain the data sent by the DMS-100 switch.

Recommended action: If the problem persists, stop data collection for this data type, courtesy down the OM collector and return it to service. If this fails to correct the trouble, log off from all switches. Then courtesy down the Communication Server and the OM collector, and return them to service. Log on again and restart collection.

0020/0001

Meaning and possible cause: A bad OM storage format was received from the DMS-100 switch. (The expected value is given.) The DNC-500 has been set up to collect OM data in a format which does not match the OM format on the DMS-100 switch.

Recommended action: Contact NT field support to correct the problem.

0024/0001

Meaning and possible cause: An inconsistency problem was encountered. The OM collector has detected an inconsistency within itself.

Recommended action: Contact NT field support to correct the problem.

OM peak value manager subsystem

The OM Peak Value Manager subsystem analyses traffic operational measurements for trunk groups and virtual facility groups. It provides the customer with a snapshot of the network traffic profile when traffic is at its peak daily volume. The log messages associated with this subsystem are listed in Table 4-F

Table 4-F
OM peak value manager subsystem messages

0005/0001

Meaning and possible cause: A record or block length has been found invalid for the Peak or OM file. The particular file is ignored. The Peak Value job continues.

Recommended action: No action is required.

0005/0002

Meaning and possible cause: A write error occurred while trying to write to a newly initialized Peak file.

Recommended action: Reboot the Peak Value PRU and restart the job. The problem can also be caused by disk being full. Perform a disk audit if the above fails to correct the problem.

0005/0003

Meaning and possible cause: A logical block is larger than the corresponding physical block in Peak job.

Recommended action: No action is required.

0005/0004

Meaning and possible cause: A read error occurred in a Peak Job.

Recommended action: No action is required.

0005/0005

Meaning and possible cause: A write error occurred in a Peak job. The problem can be caused by disk being full.

Recommended action: Reboot the PRU and restart the job. If the problem persists, perform a disk audit.

Table 4-F (continued)
OM peak value manager subsystem messages

0005/0006

Meaning and possible cause: An I/O problem was encountered while opening, closing, rewriting, or resetting the file.

Recommended action: Reboot the Peak Value PRU and restart the job.

0005/0007

Meaning and possible cause: A processing error occurred on a OM Peak Value File.

Recommended action: No action is required.

0005/0008

Meaning and possible cause: An error was encountered updating a Peak value file. The particular file is ignored by the Peak Value job.

Recommended action: No action is required.

0005/0009

Meaning and possible cause: An error was encountered in reading a record block from the Translation, OM DATA, or Peak file. The specified file is ignored by the Peak Value job.

Recommended action: No action is required.

0005/000A

Meaning and possible cause: An error was encountered in reading the next record block from the Translation, OM DATA, or Peak file. The specified file is ignored by the Peak Value job.

Recommended action: No action is required.

0006/0001

Meaning and possible cause: A Peak job has been terminated before finishing. A previous log will indicate the failure reason.

Recommended action: Check accompanying logs for further information.

Table 4-F (continued)
OM peak value manager subsystem messages

000A/0001

Meaning and possible cause: Unable to obtain memory to add to buffer pool.

Recommended action: If problem persists when job is rescheduled, reboot the associated SRU and restart the job.

000D/0001

Meaning and possible cause: Unable to find Peak field in Translation file. The specified OM translation file is ignored.

Recommended action: No action is required.

000D/0002

Meaning and possible cause: There is an invalid integer field in the specified OM translation file. This OM file is ignored by the Peak Value job.

Recommended action: No action is required.

000D/0003

Meaning and possible cause: There is an invalid integer field in the specified OM data file. This OM data file is ignored by the Peak Value job.

Recommended action: No action is required.

000D/0004

Meaning and possible cause: The specified OM file contains invalid fields and is ignored by the Peak Value job.

Recommended action: No action is required.

000D/0005

Meaning and possible cause: The specified OM data file contains an invalid time spec field. This data file is ignored by the Peak Value job.

Recommended action: No action is required.

000D/0006

Meaning and possible cause: There is a mismatch in the group number between the translation and data files or a mismatch in the number of fields between the Peak and data files. This particular data file is ignored.

Recommended action: No action is required.

Table 4-F (continued)
OM peak value manager subsystem messages

001F/0001

Meaning and possible cause: An error was encountered retrieving OM data files from the File Manager PRU.

Recommended action: If the problem persists when the job is rescheduled, reboot the File Manager and restart the Peak Value job.

001F/0002

Meaning and possible cause: An error was encountered creating a Peak Value file.

Recommended action: No action is required.

001F/0003

Meaning and possible cause: There are no OM data files associated with the customers in the File Manager. The OM job is therefore aborted.

Recommended action: No action is required.

001F/0004

Meaning and possible cause: No room exists in the class table for the new Translation file name. Each Peak Value job has only storage reserved for a maximum of 15 translation files. The time interval specified by the Peak job contains more than 15 translation files.

Recommended action: Specify a smaller time interval and restart the job.

001F/0005

Meaning and possible cause: Unable to register a Peak file with the File Manager PRU.

Recommended action: If the problem persists when the job is rescheduled, reboot the File Manager PRU and restart the job.

001F/0006

Meaning and possible cause: No translation file is present.

Recommended action: If the problem persists when the job is rescheduled, courtesy down the Peak value PRU and return it to service. If this fails to correct the problem, reboot the File Manager PRU and restart the job.

Report preprocessor subsystem

The Report Preprocessor subsystem creates user reports from files of OM data (including Peak Value results), ATT data, and KT data, which were previously collected by the DNC. The log messages associated with this subsystem are listed in Table 4-G.

Table 4-G
Report preprocessor subsystem messages

000D/0001

Meaning and possible cause: Invalid data was found while processing the specified input file.

Recommended action: Check previous logs pertaining to the collection of the specified OM file.

000D/0002

Meaning and possible cause: Invalid data found while processing the specified input file.

Recommended action: Check previous logs pertaining to the collection of the specified OM file.

0040/0002

Meaning and possible cause: An error occurred when processing the specified OM data input file.

Recommended action: Reboot the Report Preprocessor PRU and retry job. If the problem persists, reboot the DNC system.

0040/0003

Meaning and possible cause: The Report Preprocessor PRU is unable to communicate with the File Manager PRU.

Recommended action: Reboot the File Manager PRU and restart the job.

0040/0004

Meaning and possible cause: The Report Preprocessor PRU was unable to obtain memory.

Recommended action: Stop all activity on the associated SRU, reboot the SRU, and restart the job. If the problem persists, reboot the DNC system.

Table 4-G (continued)
Report preprocessor subsystem messages

0040/0005

Meaning and possible cause: The Report Preprocessor PRU is unable to communicate with the File Manager PRU.

Recommended action: Reboot the File Manager PRU and restart the job.

0040/0006

Meaning and possible cause: An error occurred when creating the report output file. This may be caused by the disk being full.

Recommended action: Perform a disk audit and retry job. If the problem persists, reboot the DNC system.

0040/0007

Meaning and possible cause: An error occurred when reading the initialization file. Default values will be used.

Recommended action: No action is required.

0040/0008

Meaning and possible cause: Invalid data found while processing the specified input file.

Recommended action: Check previous logs pertaining to the collection of the specified OM file.

0040/0009

Meaning and possible cause: An error occurred in the Report Preprocessor PRU. The generated log provides details.

Recommended action: Reboot the Report Preprocessor PRU and retry job. If the problem persists, reboot the DNC system.

0040/000A

Meaning and possible cause: An invalid block size was encountered when processing the OM data input file.

Recommended action: Check previous logs pertaining to the collection of the specified OM file.

Table 4-G (continued)
Report preprocessor subsystem messages

0040/000B

Meaning and possible cause: An error occurred in the OM parameter file.

Recommended action: Check previous logs pertaining to the collection of the specified OM file.

0040/000B

Meaning and possible cause: The Report Preprocessor PRU is unable to communicate with the Application Guardian PRU.

Recommended action: Stop all user initiated jobs in the DNC and reboot the Application Guardian PRU. Restart the DNC activities, including the Report Preprocessor job.

5. Log messages

Service order subsystem

The Service Order subsystem completes the process begun by users who have created Service Order transactions by way of customer station administration. The log messages associated with this subsystem are listed in Table 5-A.

Table 5-A
Service order subsystem messages

0001/0001

Meaning and possible cause: The DNC is initiating service order processing.

Recommended action: No action is required.

0001/0002

Meaning and possible cause: The DNC is starting to process a batch for a customer.

Recommended action: No action is required.

0002/0001

Meaning and possible cause: The DNC has completed the processing of a batch for a customer.

Recommended action: No action is required.

0002/0002

Meaning and possible cause: The Recent Change file was successfully updated for the named customer. This log is generated after the recent change file is committed.

Recommended action: No action is required.

Table 5-A (continued)
Service order subsystem messages

0005/0001

Meaning and possible cause: The Recent Change file was not successfully updated for the named customer. The result of the error is stated. This log is generated after the recent change file fails to be committed; the changes are lost and cannot be recovered.

Recommended action: Check the status of the disk or the file server, or both.

0021/0001

Meaning and possible cause: The “Nth” object for the customer in the batch specified is currently being processed.

Recommended action: No action is required.

002A/0001

Meaning and possible cause: The database for the customer could not be opened by the DNC.

Possible causes include:

- database is already open by customer
- the DNC is attempting to access a non- existent database
- either the SA Database Task (DT) PRU or the Database Supervisor (DL) PRU are not in a “working” state

Recommended action: Reschedule the job and ensure that the database is closed when the job starts.

Restore the database and reschedule the job.

In SAS maintenance, ensure that these PRUs are in a working state (ref. 450-1011-301).

Table 5-A (continued)
Service order subsystem messages

002A/0002

Meaning and possible cause: A problem was encountered in attempting to update the specified customer's database.

Possible causes include:

- either the SA Database Task (DT) PRU or the Database Supervisor (DL) PRU are not in a "working" state.
- the database has been corrupted.

Recommended action: In SAS maintenance, ensure that these PRUs are in a working state (ref. 450-1011-301).

The operating company must initialize the database.

002A/0003

Meaning and possible cause: This log is generated when a Service Order History record fails to be committed to the Station Administration database. Service Order processing will continue and the SOP will attempt to finish the job.

Recommended action: In SAS maintenance, ensure that the Database Supervisor (DL) and the SA Database Task (DT) PRUs are working (ref. 450-1011-301). Check also for other signs of database problems with the SOP.

002A/0004

Meaning and possible cause: There was a serious problem with trying to retrieve the specified directory number from the specified customer's database. This might be caused by the DL or DT task being down. Another cause of this problem might be that the database has been corrupted.

Recommended action: If a Database Access task (DT) or the Database Supervisor (DL) is down, it can be put back in the working state by using the maintenance screens. If there is a problem with the database, it must be reinitialized and a database upload initiated. If the problem persists, contact the NT support group.

Table 5-A (continued)
Service order subsystem messages

002A/0005

Meaning and possible cause: The specified DN was retrieved from the database and, for some reason, did not have the DNH option on it.

Recommended action: A SADBSYNC or Local Update should be initiated to resynchronize the database. If the problem persists, initialize the database and then perform a database upload.

002A/0006

Meaning and possible cause: The specified customer tried to add or delete more than one DNHp or DNHm from the same DNH huntgroup on the specified station.

Recommended action: Delete the failed job and initiate a SADBSYNC or Local Update to resynchronize the database. If the problem persists, initialize the database and then perform a database upload.

Service order MMI subsystem

The Service Order MMI subsystem operates with the Station Administration (SA) man-machine interface (MMI). It enables BNM users to administer ISDN Packet Data Terminals by way of a full screen MMI. The log messages associated with this subsystem are listed in Table 5-B.

Table 5-B
Service order MMI subsystem messages

0005/0001

Meaning and possible cause: The SDM table could not be accessed. This is likely due to an input/output error resulting from a transaction with the table.

Recommended action: Make sure that the SDM table exists. This can be done by way of the SDM Table Editor.

0005/0002

Meaning and possible cause: An input/output error has occurred during the audit operation.

Recommended action: Make sure that there is sufficient disk space. If problem persists, contact the NT support group.

0005/0003

Meaning and possible cause: The packet data recent change file could not opened.

Recommended action: Make sure that there is sufficient disk space. If problem persists, contact the NT support group.

0006/0001

Meaning and possible cause: An error occurred in communicating with the BNM/NAS Interface Control PRU. The NAS request entry could not be located or invoked.

Recommended action: Check the BNM/NAS Interface Control PRU and make sure it is working. Refer to information contained in logs generated by the BNM/NAS Interface Control subsystem for further help.

0006/0002

Meaning and possible cause: An error occurred in communicating with the SA Database Access PRU. The entry for the database could not be located or invoked.

Recommended action: Check the SA Database Access Task PRU and make sure it is working. If the error persists, contact the NT support group.

Table 5-B (continued)
Service order MMI subsystem messages

0006/0003

Meaning and possible cause: The Customer's Table could not be read. This is likely due to an input/output error resulting from a transaction with the table.

Recommended action: Try to access the CUSTOMER table by way of the BNM tables MMI. If the problem persists, contact the NT support group as a severe system error may have occurred.

SMDR data collector subsystem

The SMDR Data Collector subsystem collects Station Message Detail Recording (SMDR) data from the DMS-100 nodes. The subsystem operates as follows:

- a NOP RO session is obtained from the DNC Connection Manager
- the subsystem creates a file for each customer when data begins to arrive from the DMS-100 switch
- the files are registered with the File Manager PRU.
- a key file is also created for each customer and registered with the File Manager PRU
- when files have been registered with the File Manager, they are available for spooling to a remote site.
- The log messages associated with the SMDR Data Collector subsystem are listed in Table 5-C.

Table 5-C
SMDR data collector subsystem messages

0002/0001

Meaning and possible cause: The SMDR Data Collector has terminated after completing data collection, or when a fatal error was encountered.

Recommended action: If an error was encountered, check other related log messages for cause and recommended action.

0004/0001

Meaning and possible cause: The SMDR collector has collected translation data and committed the data to file.

Recommended action: No action is required.

0005/0001

Meaning and possible cause: Unable to link collected translation data to new directory. When a data change is detected in the call records that were collected, a new directory is created to store new data and the translation data that is collected is linked to the new directory. If this fails, the message is shown.

Recommended action: If the problem persists when the job is rescheduled, stop SMDR collections from all switches. Reboot the SMDR collector PRU and restart data collections.

Table 5-C (continued)
SMDR data collector subsystem messages

0005/0002

Meaning and possible cause: The SMDR collector is unable to obtain a new file for storing collected translation data. This can be caused by the disk being too full.

Recommended action: Perform a disk audit and, if the problem persists, reboot the DNC system.

0006/0001

Meaning and possible cause: Unable to communicate with the SMDR Key Manager PRU.

Recommended action: If the problem persists when the job is rescheduled, reboot the SMDR Key Manager PRU.

0006/0002

Meaning and possible cause: Unable to inform SMDR Key Manager of file collected.

Recommended action: If the problem persists when the job is rescheduled, reboot the SMDR Key Manager PRU.

0007/0001

Meaning and possible cause: Unable to initialize customer table for Data Collector. The SMDR Collector is unable to initialize its customer table for storing customer information.

Recommended action: If the problem persists, stop SMDR collections from all switches and reboot the collector PRU. Then restart collections.

0007/0002

Meaning and possible cause: Unable to initialize translation table for Data Collector. The SMDR collector failed to initialize its translation table for storing customer translation information.

Recommended action: If the problem persists when the job is rescheduled, stop SMDR collections from all switches. Then reboot the SMDR collector PRU and restart collections.

Table 5-C (continued)
SMDR data collector subsystem messages

0007/0005

Meaning and possible cause: The number of bogus customers configured in the init file is too large and defaulted.

Recommended action: No action is required.

0009/0001

Meaning and possible cause: DMS-100 system error, Data Collector will terminate. When Communication Server informs the SMDR collector that there is a problem on the DMS-100 switch, the collector will abort and log this message.

Recommended action: Check the indicated switch.

000A/0001

Meaning and possible cause: Memory Manager could not release file buffer. Memory Manager failed to release the memory allocated for its buffer pool.

Recommended action: If the problem persists when the job is rescheduled, courtesy down the collector and return it to service.

000A/0002

Meaning and possible cause: The Memory Manager failed getting memory for customer table. The SMDR collector failed to obtain enough memory from Memory Manager to initialize its customer table for storing customer information. Collection will terminate.

Recommended action: If the problem persists when the job is rescheduled, stop SMDR collections from all switches. Then courtesy down the SRU in which the SMDR collector PRU is configured, and return it to service to restart collections.

000A/0003

Meaning and possible cause: Unable to obtain memory for the number of file buffers configured. The SMDR collector failed to obtain sufficient memory from Memory Manager for creating the buffer pool configured for collection. The collector will abort.

Recommended action: If the problem persists when the job is rescheduled, stop SMDR collections from all switches. Then courtesy down the SRU in which the SMDR collector PRU is configured, and return it to service to restart collections.

Table 5-C (continued)
SMDR data collector subsystem messages

000B/0001

Meaning and possible cause: Unable to find checkpoint recovery record. The SMDR collector failed to find a checkpoint reference record from the checkpoint file performing data collection.

Recommended action: If the problem persists when the job is rescheduled, stop SMDR collections from all switches. Then courtesy down the SRU in which the SMDR collector PRU is configured, and return it to service to restart collections.

000B/0002

Meaning and possible cause: When the SMDR collector commits data to file and detects the time contained in the start or end record of the file to be invalid, the time will be defaulted to the current DNC-500 time and this message logged.

Recommended action: No action is required.

000D/0001

Meaning and possible cause: DMS-100 file contains no data or only bad data. The SMDR Collector detects that the DMS-100 file being collected from contains no or only bad data.

Recommended action: Perform an AMADUMP on the DMS-100 switch to examine its SMDR file.

000D/0002

Meaning and possible cause: The SMDR Collector failed to delete the checkpoint reference record in the recovery file.

Recommended action: If the problem persists when the job is rescheduled, stop SMDR collections from all switches. Then reboot the SMDR collector and restart collections.

000D/0003

Meaning and possible cause: An unexpected translation block was received after a data block. When C2C2 translation data is received after C1C1 SMDR data, the collector aborts.

Recommended action: Perform an AMADUMP on the file being collected from a DMS-100 switch to ensure that the SMDR file is valid. The format of SMDR data on the DMS-100 switch may be incorrect. Refer to 450-1021-351 for correct DMS-100 datafill.

Table 5-C (continued)
SMDR data collector subsystem messages

000D/0004

Meaning and possible cause: File has a bad end time. The SMDR Collector detected the end time of data record collected is earlier than the start time of the data record, the message is logged. Data collection will continue.

Recommended action: Perform an AMADUMP on the file being collected from a DMS-100 switch to ensure that the SMDR file is valid. The format of SMDR data on the DMS-100 switch may be incorrect. Refer to 450-1021-351 for correct DMS-100 datafill.

000D/0005

Meaning and possible cause: Translation data contains an Out Of Range Id record. The Bad Record was not used to partition data for customers. When a received translation record contains groupid outside the valid range (see 297-2001-119), the particular record is ignored. Data collection will continue.

Recommended action: Perform an AMADUMP on the file being collected from a DMS-100 switch to ensure that the SMDR file is valid. The format of SMDR data on the DMS-100 switch may be incorrect. Refer to 450-1021-351 for correct DMS-100 datafill.

000D/0006

Meaning and possible cause: An unknown translation record type was received, the translation record was ignored. Translation records other than type A, C, K, V, or E are ignored.

Recommended action: Perform an AMADUMP on the file being collected from a DMS-100 switch to ensure that the SMDR file is valid. The format of SMDR data on the DMS-100 switch may be incorrect. Refer to 450-1021-351 for correct DMS-100 datafill.

000D/0007

Meaning and possible cause: Translation End Record was not detected. The termination record E should be received at the end of the translation data. Data collection continues.

Recommended action: Perform an AMADUMP on the file being collected from a DMS-100 switch to ensure that the SMDR file is valid. The format of SMDR data on the DMS-100 switch may be incorrect. Refer to 450-1021-351 for correct DMS-100 datafill.

Table 5-C (continued)
SMDR data collector subsystem messages

000D/0008

Meaning and possible cause: An unknown call record was received. The end of the call block was assumed. When an unknown call record type, other than D1-D6 type is received in a block, remaining unprocessed records in the block are discarded.

Recommended action: Perform an AMADUMP on the file being collected from a DMS-100 switch to ensure that the SMDR file is valid. The format of SMDR data on the DMS-100 switch may be incorrect. Refer to 450-1021-351 for correct DMS-100 datafill.

000D/0009

Meaning and possible cause: The data record received contains an invalid time. The bad record is printed.

Recommended action: Perform an AMADUMP on the file being collected from a DMS-100 switch to ensure that the SMDR file is valid. The format of SMDR data on the DMS-100 switch may be incorrect. Refer to 450-1021-351 for correct DMS-100 datafill.

001B/0001

Meaning and possible cause: Unable to inform Application Guardian of a collection problem. When the SMDR collector encounters a fatal error and is unable to inform the Application Guardian to abort itself, this message is shown.

Recommended action: Check that the Application Guardian PRU is up. If so and if problem persists, courtesy down Guardian and put back to service. Restart the SMDR data collection.

001C/0001

Meaning and possible cause: The SMDR Collector has encountered a fatal error or has completed data collection and is unable to inform the Communication Server to stop data transfer.

Recommended action: If the problem persists when the job is rescheduled, reboot the Communication Server PRU and restart the job.

Table 5-C (continued)
SMDR data collector subsystem messages

001C/0002

Meaning and possible cause: An invalid mode was requested for data collection.

Recommended action: Stop SMDR collections from all switches and then reboot the SMDR collector PRU. If the problem persists, reboot the Application Guardian PRU and restart collections.

SMDR key manager subsystem

The SMDR Key Manager subsystem oversees the creation of SMDR key files.

The log messages associated with the SMDR Key Manager subsystem are listed in Table 5-D.

Table 5-D
SMDR key manager subsystem messages

0006/0001

Meaning and possible cause: A communication problem was encountered with Call Tracking. The system was unable to inform the Call Tracking PRU that the generation of SMDR key files was complete.

Recommended action: Reboot the Call Tracking PRU.

SPP facility mapping mgr subsystem

The SPP Facility Mapping Mgr subsystem allows data collected from DMS switches to be integrated with data collected from the SPP. The log messages associated with this subsystem are listed in Table 5-E.

Table 5-E
SPP facility mapping mgr subsystem messages

0002/0001

Meaning and possible cause: A poll has completed successfully.

Recommended action: No action is required.

0001/0001

Meaning and possible cause: A specified facility mapping interface process is trying to start up.

Recommended action: No action is required.

0001/0002

Meaning and possible cause: The facility mapping manager is now operational.

Recommended action: No action is required.

0001/0003

Meaning and possible cause: The facility mapping BNM table interface is now operational.

Recommended action: No action is required.

0001/0004

Meaning and possible cause: The facility mapping decoder interface is now operational.

Recommended action: No action is required.

0001/0005

Meaning and possible cause: As scheduled, the facility mapping database is being updated with the contents of a mapping file.

Recommended action: No action is required.

Table 5-E (continued)
SPP facility mapping mgr subsystem messages

0001/0006

Meaning and possible cause: An Xfile is being generated for a specified customer and node.

Recommended action: No action is required.

0002/0001

Meaning and possible cause: A message of specified type is being ignored by the facility mapping manager.

Recommended action: No action is required.

0002/0002

Meaning and possible cause: A specified facility mapping interface process is unable to start up.

Recommended action: Start the specified interface again. If it fails, record the name and fork status and contact NT field support.

0002/0003

Meaning and possible cause: A facility mapping interface process will not be started, since another specified facility mapping interface process has already been started.

Recommended action: No action is required.

0002/0004

Meaning and possible cause: A specified scheduled mapping change has been applied to the facility mapping database, without error.

Recommended action: No action is required.

0002/0005

Meaning and possible cause: A specified scheduled mapping change has not been successful-the mapping was not inserted into the database.The facility type, name, and id are specified.

Recommended action: Insert the mapping into the database. For information on the procedure, refer to Chapter 7 of 450-1021-331.

Table 5-E (continued)
SPP facility mapping mgr subsystem messages

0002/0006

Meaning and possible cause: A specified scheduled mapping change cannot be applied, due to a missing mapping file.

Recommended action: Check the environment variable MAPFILEDIR in /usr/bnm/.profile for the mapping file directory, and verify that the specified file is under that directory. Then schedule the mapping change.

0002/0007

Meaning and possible cause: A specified scheduled mapping change cannot be applied, because a specified mapping file cannot be accessed.

Recommended action: Check the environment variable MAPFILEDIR in /usr/bnm/.profile for the directory name and use "chmod" to change the access right of the file.

0002/0008

Meaning and possible cause: A specified scheduled mapping change cannot be applied, due to a specified SQL error.

Recommended action: Schedule the mapping change again. If the problem persists, contact NT field support.

0002/0009

Meaning and possible cause: A specified scheduled mapping change cannot be applied, due to the incorrect format of a specified mapping file.

Recommended action: Refer to Chapter 7 of 450-1021-331 for information on validating the file. Correct all of the errors, and schedule the mapping change again.

0002/000A

Meaning and possible cause: A specified Xfile cannot be opened, due to either an error in the UNIX file system or the Xfile being incorrectly formatted.

Recommended action: Check that all Helix file servers are mounted.

0002/000B

Meaning and possible cause: The generation of a specified Xfile is aborted due to a failure writing the Xfile header/footer information.

Recommended action: Contact NT field support.

Table 5-E (continued)
SPP facility mapping mgr subsystem messages

0002/000C

Meaning and possible cause: The generation of a specified Xfile is aborted due to an error in the UNIX file system. The SQL error is identified.

Recommended action: Report the SQL error to NT field support.

0002/000D

Meaning and possible cause: No mappings for a specified facility in a specified Xfile are found in the database, due to either an error in the database or the facility mapping not being datafilled.

Recommended action: Refer to Chapter 7 of 450-1021-331 for information on checking the current mapping of facilities the specified node. If the mapping is correct, contact NT field support.

0002/000E

Meaning and possible cause: An Xfile has been generated, with correct format, for a specified customer on a specified node.

Note: Some entries may be missing. Refer to other logs for details.

Recommended action: No action is required.

0002/000F

Meaning and possible cause: The facility mapping BNM table interface process has received an invalid specified delta file, which will be discarded. No processing is done.

Recommended action: No action is required.

0007/0001

Meaning and possible cause: A specified init file cannot be opened, and the manager is shutting down.

Recommended action: Ensure that /LOCAL is mounted.

0007/0002

Meaning and possible cause: A specified flag cannot be read from the init file, and the manager is shutting down.

Recommended action: Contact NT field support for the correct setting of the init parameters.

Table 5-E (continued)
SPP facility mapping mgr subsystem messages

0007/0003

Meaning and possible cause: A specified message queue cannot be accessed by the running process.

Recommended action: No action is required.

0007/0004

Meaning and possible cause: A specified UNIX-environment variable is missing from the variable list of the running process.

Recommended action: Check /usr/bnm/.profile for the environment variable.

0007/0005

Meaning and possible cause: A specified directory cannot be accessed by the running process.

Recommended action: Check the existence/access right of the path.

0007/0006

Meaning and possible cause: A specified signal cannot be caught by the running process, and the process is terminating.

Recommended action: Process will be started again automatically. If problem persists, reboot DVIX.

0007/0007

Meaning and possible cause: The DNC id cannot be read by the running process, and the facility mapping BNM table interface is terminating.

Recommended action: Ensure that /LOCAL is mounted. If the problem persists, contact NT field support.

0007/0008

Meaning and possible cause: The facility mapping BNM table interface cannot register with the resource manager, and the interface process is shutting down.

Recommended action: Contact NT field support.

Table 5-E (continued)
SPP facility mapping mgr subsystem messages

0007/0009

Meaning and possible cause: A specified BNM table cannot be read by the facility mapping BNM table interface, and the interface process is shutting down.

Recommended action: Ensure that /LOCAL is mounted. If the problem persists, contact NT field support.

0007/000A

Meaning and possible cause: The facility mapping BNM table interface process cannot open the SPP node table, and the interface process is aborting the BNM node table's "Retrieve SPP Nodes" softkey request. The SPP's node database file might be corrupted.

Recommended action: Restore the file, from the saved copy. Refer to the release notes for details.

0007/000B

Meaning and possible cause: The facility mapping BNM table interface process cannot reinitialize the facility mapping tables, and the interface process is shutting down.

Recommended action: Make sure that the turbo informix is in the online state, and the environment variable SQL EXEC is set to /usr/informix/lib/sq/turbo

0008/0001

Meaning and possible cause: The facility mapping BNM interface process cannot reply to the invoked request of the BNM node table's "Retrieve SPP Nodes" softkey .

Recommended action: Try the "Retrieve SPP Nodes" softkey again. If the problem persists, contact NT field support.

002A/0001

Meaning and possible cause: The facility mapping database has not been found, and a new database is being created.

Recommended action: No action is required.

Table 5-E (continued)
SPP facility mapping mgr subsystem messages

002A/0002

Meaning and possible cause: The facility mapping database cannot be created/accessed. The SQL error is identified.

Recommended action: Contact NT field support.

002A/0003

Meaning and possible cause: A specified facility mapping database table cannot be created/accessed. The SQL error is identified.

Recommended action: Contact NT field support.

002A/0004

Meaning and possible cause: The facility mapping BNM table interface is in recovery mode, trying to synchronize with the BNM tables.

Recommended action: No action is required.

SPP log interface subsystem

The Switch/PBX Poller (SPP) Log Interface subsystem provides an interface between the SPP and the DVS logger. This allows SPP polling results to be logged and generated (see Table 5-F).

Table 5-F
SPP log interface subsystem messages

0002/0001

Meaning and possible cause: A poll has completed successfully.

Recommended action: No action is required.

0002/0002

Meaning and possible cause: The poll was aborted at the user's request.

Recommended action: No action is required.

0005/0001

Meaning and possible cause: There was in error in attempting to open the poll log file poll_log.dat. Consequently, this file could not be accessed and the poll status could not be logged.

Recommended action: The file poll_log.dat may be in use by another application. If the error persists, contact the NT support group.

0005/0002

Meaning and possible cause: There was in error in attempting to open the PBX data file. Consequently, this file could not be accessed and the poll could not be performed.

Recommended action: The PBX data file may be in use by another application. If the error persists, contact the NT support group.

0005/0003

Meaning and possible cause: This log is variable. It is related to problems encountered with the CC3 file and the poll log file.

Recommended action: Check the integrity of the file specified in the log message.

Table 5-F (continued)
SPP log interface subsystem messages

0008/0001

Meaning and possible cause: Communications could not be established with the PBXs. As a result, no poll was performed.

Recommended action: Check that the modem is functioning properly and correctly connected. Also check the connection between the PBX and the CC3 device. If the problem persists, contact the NT support group.

0008/0002

Meaning and possible cause: A hang-up occurred during the polling session. As a result, the polling session was aborted.

Recommended action: Check that the modem is functioning properly and correctly connected. If the problem persists, contact the NT support group.

0008/0003

Meaning and possible cause: The communications port has shut down, causing the polling session to be aborted. This is possibly due to a device failure in the system.

Recommended action: Contact the NT support group.

0008/0004

Meaning and possible cause: Excessive communication errors were encountered during the polling session. As a result, the polling session was aborted.

Recommended action: This problem can often be cleared by shutting down the system and rebooting the SPP Manager PRU. If the problem persists, contact the NT support group.

000D/0001

Meaning and possible cause: The SPP is not configured properly in order for it to communicate with the specified CC3 device.

Recommended action: Compare the CC3 configuration with the attached PBX type. This can be done by checking the "CC Model" field in the Site Information menu.

Table 5-F (continued)
SPP log interface subsystem messages

000D/0002

Meaning and possible cause: An incorrect PBX ID is passed to the SPP. As a result, no poll is performed.

Recommended action: Ensure that the PBXs are configured properly. This can be done by checking the "Site-ID" field in the Site Information menu.

001D/0001

Meaning and possible cause: An unknown problem has occurred.

Recommended action: Ensure that the SPP is functioning properly. If the problem persists, contact the NT support group.

001E/0001

Meaning and possible cause: This log message is variable. It is concerned with the malfunctioning CC3 device. The CC3 alarm status is "critical".

Recommended action: Check that the CC3 device is turned on and is functioning properly. If the problem persists, contact the NT support group.

001E/0002

Meaning and possible cause: This log message is variable. It is concerned with a potential problem with the CC3 device. The CC3 alarm status is "critical potential".

Recommended action: Check that the CC3 device is turned on and is functioning properly. If the problem persists, contact the NT support group.

0027/0001

Meaning and possible cause: The disk on the SPP is full or can no longer accept data. As a result, no poll was performed.

Recommended action: Check the SPP disk and determine if it is full or if allocated space is available. If the problem persists, contact the NT support group.

SPP scheduler subsystem

The SPP Scheduler subsystem allows SPP poll jobs to be configured such that they can follow either a daily, weekly, or monthly schedule. This feature also allows time specifications to be set. SPP poll job scheduling is done through BNM Scheduling Services.

The log messages associated with the SPP Scheduler subsystem are listed in Table 5-G.

Table 5-G
SPP scheduler subsystem messages

0006/0001

Meaning and possible cause: A POLLCDR job, which is being retried, is being aborted, because the repoll timer cannot be initiated.

Recommended action: Contact NT field support.

0007/0001

Meaning and possible cause: The HSV DVIX task, which should be initiated before POLLCDR jobs are scheduled for SPP nodes, is not alive at this time.

Recommended action: Boot DVIX if it hasn't already been booted. If an HSV DVIX task is not initiated after DVIX is booted, contact NT field support.

0007/0002

Meaning and possible cause: The HSV DVIX task is exiting because the SPP is not configured in BNM-as determined in the initialization file UNINIT.

Recommended action: If the SPP is configured in BNM, UNINIT has to be updated to recognize that the SPP is configured. Then, the HSV DVIX task can be reinitiated.

0007/0003

Meaning and possible cause: The HSV DVIX task is exiting because it cannot initialize itself for a generic remote rendezvous.

Recommended action: Try reinitiating the HSV task. If the problem persists, contact NT field support.

Table 5-G (continued)
SPP scheduler subsystem messages

0007/0004

Meaning and possible cause: The current HSV DVIX task is exiting because of problems in cleaning up old HSV tasks.

Recommended action: Try reinitiating the HSV task. If the problem persists, contact NT field support.

0007/0005

Meaning and possible cause: The current HSV DVIX task is exiting because a task is already running.

Recommended action: No action is required.

0007/0006

Meaning and possible cause: The HSV DVIX task is exiting because there are problems in defining the Start_Job entry.

Recommended action: Try reinitiating the HSV task. If the problem persists, contact NT field support.

0007/0007

Meaning and possible cause: The HSV DVIX task is exiting because there are problems in registering the task with the resource manager.

Recommended action: Try reinitiating the HSV task. If the problem persists, contact NT field support.

0008/0001

Meaning and possible cause: The POLLCDR job is being aborted because the HSV task which handles the POLLCDR job cannot be located.

Recommended action: Check whether the HSV task has been initiated on the DVIX side. If an HSV task has been initiated, shut it down and then reinitiate the task. Otherwise, just reinitiate the task, even if one is alive and can't be shut down. If the problem persists, contact NT field support.

Table 5-G (continued)
SPP scheduler subsystem messages

0008/0002

Meaning and possible cause: The POLLCDR job is being aborted because of communication problems with the HSV task.

Recommended action: Check whether the HSV task has been initiated on the DVIX side. If an HSV task has been initiated, shut it down and then reinitiate the task. Otherwise, just reinitiate the task, even if one is alive and can't be shut down. If the problem persists, contact NT field support.

0008/0003

Meaning and possible cause: The POLLCDR job is being aborted because of the specified node is not recognized by the SPP. This situation usually occurs when the node, which is used to configure the SPP, has been de-configured. However, the scheduled POLLDCR jobs for the node have not been removed.

Recommended action: Contact NT field support.

0008/0004

Meaning and possible cause: The POLLCDR job is being aborted because the SPP poll group associated with the specified node is not recognized by the SPP.

Recommended action: Contact NT field support.

0021/0001

Meaning and possible cause: The POLLCDR job for the specified node will be retried because no valid ports/pollers are currently available.

Recommended action: No action is required.

0021/0002

Meaning and possible cause: The SPP node which is to be retried cannot be added to the repoll_list because no space is available.

Recommended action: Contact NT field support.

0021/0003

Meaning and possible cause: No valid SPP ports/pollers are available. A POLLCDR job for a specified node is already being retried.

Recommended action: No action is required.

Table 5-G (continued)
SPP scheduler subsystem messages

0021/0004

Meaning and possible cause: The retry attempts for a specified node have been exhausted and the POLLCDR job for the node is being aborted.

Recommended action: If at least one valid port is idle or down, reboot. If the log message appears again, contact NT field support.

0021/0005

Meaning and possible cause: The POLLCDR job currently being retried is being aborted because the specified node cannot be found in the Repoll_list.

Recommended action: Contact NT field support.

0021/0006

Meaning and possible cause: The POLLCDR job for the specified node is being aborted because the node name is either of zero length or longer than the maximum allowable length.

Recommended action: Contact NT field support.

0021/0007

Meaning and possible cause: The POLLCDR job is being aborted because of an unexpected return code from the SPP manager.

Recommended action: Contact NT field support.

0021/0008

Meaning and possible cause: A POLLCDR job has started for the node.

Recommended action: No action is required.

0021/0009

Meaning and possible cause: A POLLCDR job is being aborted because the specified node is not recognized by the SPP. This situation usually occurs when the node, which is used to configure the SPP, has been de-configured. However, the scheduled POLLCDR jobs have not been removed.

Recommended action: Contact NT field support.

Table 5-G (continued)
SPP scheduler subsystem messages

0021/000A

Meaning and possible cause: A POLLCDR job is being aborted because the SPP pol group associated with the specified node is not recognized by the SPP.

Recommended action: Contact NT field support.

0021/000B

Meaning and possible cause: A POLLCDR job is being ignored because a POLLCDR is already running for the specified node.

Recommended action: Contact NT field support.

0021/000C

Meaning and possible cause: The POLLCDR job is being aborted at the request of the decoder. This occurs when the decoder finds that it cannot decode data for the node.

Recommended action: Look for related logs from the decoder.

0021/000D

Meaning and possible cause: A POLLCDR job is being aborted because of an unexpected return code, in response to a poll job, from the HSV task.

Recommended action: Contact NT field support.

0021/000E

Meaning and possible cause: A POLLCDR job for the specified node is being aborted because the HSX task is not in a valid state to process the job.

Recommended action: Contact NT field support.

0021/000F

Meaning and possible cause: The POLLCDR job for the specified node is being aborted because the SPP is not configured in BNM as determined in the initialization file UNINIT. This usually occurs when the SPP is not configured in BNM, yet scheduled POLLCDR jobs exist for the node.

Recommended action: If the SPP is configured in BNM, then the UNINIT has to be updated to reflect that the SPP is configured and the HS PRU must be rebooted. If the SPP is not configured in BNM, delete all POLLCDR jobs from the schedule.

Table 5-G (continued)
SPP scheduler subsystem messages

0021/0010

Meaning and possible cause: The HS PRU is shutting down and some POLLCDR jobs that are being retried will be aborted.

Recommended action: No action is required.

0021/0011

Meaning and possible cause: There is a problem in the accept of the Start_Job entry in a specified HSV DVIX task.

Recommended action: Contact NT field support.

0021/0012

Meaning and possible cause: The HSX task is unable to de-register from the resource manager during shutdown. Regardless, the HSX task will be shut down.

Recommended action: No action is required.

0021/0013

Meaning and possible cause: The HSV task has de-registered from the DVIX resource manager and has shut down.

Recommended action: No action is required.

0021/0013

Meaning and possible cause: The HSV DVIX task has been initialized.

Recommended action: No action is required.

SPP SMDR decoder subsystem

The SPP SMDR Decoder subsystem works in conjunction with the TSB Call Data Collector (CC3). This subsystem allows the call data records (CDR) collected from different PBXs by the CC3 device to be converted into DMS SMDR format. This facility enables existing BNM software to support the operation of non-DMS switches.

The log messages associated with the SPP SMDR Decoder subsystem are listed in Table 5-H.

Table 5-H
SPP SMDR decoder subsystem messages

0005/0001

Meaning and possible cause: An error occurred in opening the temporary SMDR data file. As a result, this file could not be opened and the block of SMDR data could not be stored.

Recommended action: Contact the NT support group.

0005/0002

Meaning and possible cause: An error occurred in writing to the temporary SMDR data file. As a result, the block of SMDR data could not be stored.

Recommended action: Contact the NT support group.

0005/0003

Meaning and possible cause: After a number of attempts, the temporary SMDR data file could not be written to. As a result, SMDR conversion is halted.

Recommended action: This is an indication of file input/output problems. It is possible that too many files have been opened simultaneously. Contact the NT support group.

0005/0004

Meaning and possible cause: An error occurred in opening the CheckPoint file.

Recommended action: This is an indication of file input/output problems. Contact the NT support group.

Table 5-H (continued)
SPP SMDR decoder subsystem messages

0005/0005

Meaning and possible cause: An error occurred in writing to the CheckPoint file.

Recommended action: This is an indication of file input/output problems. Contact the NT support group.

0005/0006

Meaning and possible cause: The block of SMDR data could not be filed. The SMDR data is not committed to disk.

Recommended action: This is an indication of file input/output problems. It is possible that too many files have been opened simultaneously. Contact the NT support group.

0005/0007

Meaning and possible cause: The copy of the Xfile failed. The SMDR data is not committed to disk.

Recommended action: Contact the NT support group.

0005/0008

Meaning and possible cause: The copy of the SMDR data file failed. The SMDR data is not committed to disk.

Recommended action: Contact the NT support group.

0005/0009

Meaning and possible cause: The temporary SMDR data file could not be removed from the system.

Recommended action: The DVIX partition may eventually become full, causing temporary SMDR data file problems. If the log message appears regularly, contact the NT support group.

0005 0011

Meaning and possible cause: The SPP SMDR converter process ID could not be stored.

Recommended action: Contact the NT support group.

Table 5-H (continued)
SPP SMDR decoder subsystem messages

0005 0012

Meaning and possible cause: The SPP converter process PID file could not be opened.

Recommended action: Contact the NT support group.

0007/0001

Meaning and possible cause: The SPP SMDR converter semaphores (that is, system control flags) could not be initialized.

Recommended action: Contact the NT support group.

0007/0004

Meaning and possible cause: An error occurred in initializing the SMDR decoding process. The SMDR converter will eventually stop functioning.

Recommended action: Refer to other log reports which might better identify the cause of the initialization error.

0007/0005

Meaning and possible cause: The specified SMDR converter could not be re-initialized for a previously queued node. The converter will eventually stop functioning.

Recommended action: Contact the NT support group.

0007/0006

Meaning and possible cause: An attempt to initialize or capture various system signals failed.

Recommended action: Contact the NT support group.

0007/0007

Meaning and possible cause: An attempt to ignore various system signals failed.

Recommended action: Contact the NT support group.

0007/0008

Meaning and possible cause: An attempt to initiate the Timer process failed.

Recommended action: Contact the NT support group.

Table 5-H (continued)
SPP SMDR decoder subsystem messages

0007/0009

Meaning and possible cause: An attempt to initiate the Message Handler process failed.

Recommended action: Contact the NT support group.

0007 0010

Meaning and possible cause: The specified SMDR converter did not receive the START signal. The converter is not functioning.

Recommended action: Contact the NT support group.

0007 0011

Meaning and possible cause: The specified SMDR converter is aborting due to an initialization error. The specified node is removed from internal tables.

Recommended action: Contact the NT support group.

0007 0012

Meaning and possible cause: An EXEC call causing a newly created process to concurrently run its own executable has failed.

Recommended action: Ensure that appropriate ENVIRONMENT variables are defined correctly, stop the entire decoder process, and re-try. If the problem persists, contact the NT support group.

0007 0013

Meaning and possible cause: An undefined process environment variable was detected.

Recommended action: Ensure that appropriate variables have been defined.

0008/0001

Meaning and possible cause: An attempt to acquire one of 32 generic remote rendezvous interface resources has failed.

Recommended action: Contact the NT support group.

Table 5-H (continued)
SPP SMDR decoder subsystem messages

0008/0002

Meaning and possible cause: A remote rendezvous task entry call has failed.

Recommended action: Contact the NT support group.

0008/0003

Meaning and possible cause: The DVS Resource Manager could not be located.

Recommended action: Contact the NT support group.

0008/0004

Meaning and possible cause: An attempt to invoke the FA "PUT" task failed.

Recommended action: Contact the NT support group.

0008/0005

Meaning and possible cause: An attempt to invoke the FA "Housekeep" task failed.

Recommended action: Contact the NT support group.

0008/0006

Meaning and possible cause: An Xfile request was not generated successfully. As a result, The SMDR data is not committed to disk.

Recommended action: Check the SPP Facility Mapping Mgr decoder interface and make sure it is operational. If the problem persists, contact the NT support group.

0008/0007

Meaning and possible cause: A requested Xfile has not arrived in the allotted time. As a result, SMDR communication is aborted.

Recommended action: Check the SPP Facility Mapping Mgr decoder interface and make sure it is operational. If the problem persists, contact the NT support group.

Table 5-H (continued)
SPP SMDR decoder subsystem messages

0008/0008

Meaning and possible cause: A Facility Table Update Request for the specified node was not sent successfully to the SPP Facility Mapping feature.

Recommended action: Contact the NT support group.

0008/0009

Meaning and possible cause: The Message Handler could not be signaled to re-read the initialization (INIT) file for the subsystem.

Recommended action: Contact the NT support group.

000A/0001

Meaning and possible cause: The 2Kb SMDR block memory could not be allocated for the specified SMDR converter.

Recommended action: Check memory resources. If problem persists, contact the NT support group.

000A/0002

Meaning and possible cause: The 2Kb SMDR block memory could not be allocated for the specified SMDR converter. The conversion process is halted.

Recommended action: If problem persists, contact the NT support group.

000A/0003

Meaning and possible cause: The default SMDR block memory could not be acquired for the specified SMDR converter. The SMDR conversion is aborted.

Recommended action: Check memory resources.

000B/0001

Meaning and possible cause: An update of the CheckPoint file failed. The SMDR conversion is aborted.

Recommended action: This is likely a file input/output error. Contact the NT support group.

Table 5-H (continued)
SPP SMDR decoder subsystem messages

000F/0001

Meaning and possible cause: The name of the Telco could not be determined. As a result, the SMDR data is not committed to disk.

Recommended action: Check the file 'UNINIT' for the definition of the Telco name.

0011/0001

Meaning and possible cause: The node ID and the node type could not be accessed from the Facility Map Table. As a result, the SMDR conversion is aborted.

Recommended action: Check the SPP Facility Mapping feature and make sure it is operational. If the problem persists, contact the NT support group.

0017/0002

Meaning and possible cause: The Facility Map Table could not be accessed. The SMDR conversion is aborted or the mapping changes are ignored.

Recommended action: Check the SPP Facility Mapping feature and make sure it is operational. If the problem persists, contact the NT support group.

001F/0001

Meaning and possible cause: An attempt to rendezvous with the FA "MAIN" task failed.

Recommended action: Ensure that the FA PRU is operational. If problem persists, contact the NT support group.

001F/0002

Meaning and possible cause: An attempt to rendezvous with the FA "PUT" task failed.

Recommended action: Ensure that the FA PRU is operational. If problem persists, contact the NT support group.

001F/0003

Meaning and possible cause: An attempt to rendezvous with the FA "Housekeep" task failed.

Recommended action: Ensure that the FA PRU is operational. If problem persists, contact the NT support group.

Table 5-H (continued)
SPP SMDR decoder subsystem messages

001F/0004

Meaning and possible cause: The SMDR data file path could not be accessed or created. As a result, the SMDR data is not committed to disk.

Recommended action: Check the File Administrator (FA) PRU and make sure it is operational. If problem persists, contact the NT support group.

001F/0005

Meaning and possible cause: The registration of Xfile-Dfile pair failed. As a result, the SMDR data is not committed to disk.

Recommended action: Check the File Administrator (FA) PRU and make sure it is operational. If problem persists, contact the NT support group.

0021/0003

Meaning and possible cause: The Xfile-Dfile pair has been registered with the FA successfully.

Recommended action: No action is required.

0021/0006

Meaning and possible cause: The SPP SMDR Decoder has been signaled to re-read the initialization (INIT) file for the subsystem.

Recommended action: No action is required.

0021 0011

Meaning and possible cause: The SPP SMDR Decoder has been signaled to shut down.

Recommended action: No action is required.

0021 0012

Meaning and possible cause: The specified SMDR converter cannot be found in the process table. As a result, no converter is allocated.

Recommended action: Contact the NT support group.

0021 0018

Meaning and possible cause: The specified node has been successfully placed on the internal queue and is awaiting data processing.

Recommended action: No action is required.

Table 5-H (continued)
SPP SMDR decoder subsystem messages

0021 0019

Meaning and possible cause: The Message Handler is in the process of signaling the SMDR converters currently running to shut down.

Recommended action: No action is required.

0021 0020

Meaning and possible cause: The SPP SMDR Decoder subsystem is in the process of completing its session.

Recommended action: No action is required.

0021 0021

Meaning and possible cause: The SPP SMDR Decoder subsystem is starting a session.

Recommended action: No action is required.

0021 0024

Meaning and possible cause: All nodes defined for SMDR processing have been deleted. As a result, the internal tables are in the process of being emptied.

Recommended action: No action is required.

0021 0025

Meaning and possible cause: The specified node is being removed from SMDR processing. As a result, the node is deleted from the internal tables.

Recommended action: No action is required.

0027/0001

Meaning and possible cause: The semaphore (that is, system control flags) resources for the subsystem could not be accessed.

Recommended action: Contact the NT support group.

0027/0002

Meaning and possible cause: The message queuing resources for the subsystem could not be accessed.

Recommended action: Contact the NT support group.

Table 5-H (continued)
SPP SMDR decoder subsystem messages

0027/0003

Meaning and possible cause: The shared memory resources for the subsystem could not be accessed.

Recommended action: Contact the NT support group.

0027/0005

Meaning and possible cause: An attempt was made to create a new SMDR converter but was aborted. This could not be done because the maximum number of converters are currently running.

Recommended action: No action is required.

0027/0006

Meaning and possible cause: An attempt to fork a new converter failed. It is possible that the maximum number of processes for the user has been exceeded.

Recommended action: Contact the NT support group.

0027/0007

Meaning and possible cause: The internal queue does not have enough capacity to accept the specified node. As a result, the node is rejected. It is possible that the maximum number of nodes that the subsystem can handle at one time has been exceeded.

Recommended action: Contact the NT support group.

Tape generator subsystem

The Tape Generator subsystem writes the SMDR data to tape. It uses the File Manager PRU to locate the SMDR translation and data files that are to be output.

The log messages associated with the Tape Generator subsystem are listed in Table 5-I.

Table 5-I
Tape generator subsystem messages

0002/0001

Meaning and possible cause: Tape generation has been stopped due to an unexpected error.

Recommended action: See the accompanying log messages for details and recommended action.

0005/0001

Meaning and possible cause: Unable to read a block number in a file. A bad block read was encountered while tape dumping a data file.

Recommended action: Restart the tape generation job. If the problem persists, perform an AMADUMP on the specified switch to verify that the data is valid.

000D/0003

Meaning and possible cause: There was a skip in the SMDR data block sequence number.

Recommended action: No action is required.

001B/0001

Meaning and possible cause: Unable to inform Application Guardian PRU that the tape job initialization was completed.

Recommended action: Reboot the Application Guardian PRU and restart tape job.

0021/0001

Meaning and possible cause: A new volume serial number was written on the tape header.

Recommended action: No action is required.

Table 5-I (continued)
Tape generator subsystem messages

0021/0002

Meaning and possible cause: System is unable to tape dump a file. The message states whether the file was previously tape dumped or not.

Recommended action: Clean the tape drive heads and restart the tape job.

0021/0003

Meaning and possible cause: The translation data file has been successfully tape dumped.

Recommended action: No action is required.

0025/0001

Meaning and possible cause: Please mount tape.

Recommended action: Install a tape in tape machine. Also check if the tape is properly installed, and that the power is on and tape is on-line.

0025/0002

Meaning and possible cause: The tape went off-line during the dump.

Recommended action: Check the tape to ensure that it is on-line. The Tape Generation job may need to be restarted.

0025/0003

Meaning and possible cause: Please mount new tape.

Recommended action: The current tape that is being used is full. Mount a new tape in the tape machine; the Tape Generation job will continue.

0025/0005

Meaning and possible cause: Unable to write to tape.

Recommended action: Check that there is a write ring on the tape. If so, try using a different tape. If the problem persists, there may be hardware problems with the tape machine.

DMS MAP passthru messages

The CMAP passthru feature provides the BNM user with the capability to logon to the DMSs connected to the BNM system Security measures are provided by DNC to DMS logon permissions and the journaling of all logons.

The log messages associated with the CMAP passthru feature are listed in Table 5-J.

Table 5-J
DMS MAP passthru messages

0003/0023

Meaning and possible cause: The SDM table CMAP ACCESS-ND cannot be opened, possibly because it does not exist.

Recommended action: Check SDM table editor for existence of CMAP ACCESS-ND and check status of FG PRU.

0003/0024

Meaning and possible cause: A tuple was not found in the CMAP ACCESS-ND table for the DNC user listed. The user is barred from using CMAP.

Recommended action: The DNC Administrator is responsible for datafilling the appropriate information in the SDM table CMAP ACCESS-ND.

0003/0025

Meaning and possible cause: The CMAP journal file listed could not be opened for writing.

Recommended action: Check the existence of the directory listed. Check the access privileges to that directory. Check for available space on the file server.

0003/0026

Meaning and possible cause: It was not possible to write to the CMAP journal listed.

Recommended action: Check the availability of space on the file server. Check the access privileges on the directory listed.

0003/0027

Meaning and possible cause: It was not possible to determine the username listed and/or the location of the user listed.

Recommended action: Attempt to logon again. If the problem persists, contact NT support group.

6. Log messages

Common messages

The common messages (see Table 6-A) are not a subsystem, but are messages shared by all the other subsystems. If a subsystem generates a message taken from this table, the subsystem name appears in the message.

Table 6-A
Common messages

0001/0002

Meaning and possible cause: A demand recovery request for SMDR, KT, OMs or ATT data has started.

Recommended action: No action is required.

0001/0003

Meaning and possible cause: A demand transfer for a specific DMS-100 file has started.

Recommended action: No action is required.

0001/0004

Meaning and possible cause: A realtime transfer request for SMDR, KT, OM or ATT data has started.

Recommended action: No action is required.

0001/0005

Meaning and possible cause: A realtime transfer request for SMDR, KT, OM or ATT data has started. A volume rotate on DMS has been requested.

Recommended action: No action is required.

Table 6-A (continued)
Common messages

0001/0006

Meaning and possible cause: A demand transfer request for the specified data type has started.

Recommended action: No action is required.

0001/0007

Meaning and possible cause: A realtime collect request for the specified data type has started.

Recommended action: No action is required.

0001/0008

Meaning and possible cause: A recovery transfer request for the specified data type has started.

Recommended action: No action is required.

0002/0001

Meaning and possible cause: The specified DMS-100 data file has been successfully collected.

Recommended action: No action is required.

0002/0002

Meaning and possible cause: A data collector has terminated after completing data collection or when a fatal error is encountered.

Recommended action: Check the accompanying logs to determine if an error occurred. These logs provide the recommended action.

0002/0003

Meaning and possible cause: A database upload was completed successfully for the specified customer and customer group on the specified node.

Recommended action: No action is required.

0003/0001

Meaning and possible cause: This indicates the result of DMS rotate request on the switch specified in the log header.

Recommended action: No action is required.

Table 6-A (continued)
Common messages

0003/0002

Meaning and possible cause: The DMS-100 switch has confirmed the data collection request on a specific file.

Recommended action: No action is required.

0003/0003

Meaning and possible cause: The DMS-100 switch has confirmed the realtime data collection request.

Recommended action: No action is required.

0003/0004

Meaning and possible cause: There is no active file on the DMS-100 switch to start realtime data collection.

Recommended action: At the node, use the MAP terminal (or DMS MAP Passthru) to check that the data type is defined. Use the DMS-100 MAP level command string MAPCI; MTC; IOD; XFER (see 297-1001-509) to check the data type.

0003/0005

Meaning and possible cause: The collector has received an unexpected confirmation and will ignore it.

Recommended action: No action is required.

0004/0001

Meaning and possible cause: The specified collector has collected data and committed it to file.

Recommended action: No action is required.

0004/0002

Meaning and possible cause: The specified DMS-100 file has been successfully collected.

Recommended action: No action is required.

Table 6-A (continued)
Common messages

0004/0003

Meaning and possible cause: The collector has collected data of the indicated subtype and committed it to file.

Recommended action: No action is required.

0005/0001

Meaning and possible cause: A PRU cannot open its init file and will default all its configurable parameters.

Recommended action: No action is required.

0005/0002

Meaning and possible cause: A PRU cannot close its init file.

Recommended action: No action is required.

0005/0003

Meaning and possible cause: A PRU cannot open a file to read data from it.

Recommended action: If the problem persists, reboot the PRU.

0005/0004

Meaning and possible cause: A PRU cannot open a file to write data to it. This can be caused by disk being full.

Recommended action: Perform a disk audit and restart the job.

0005/0005

Meaning and possible cause: A PRU cannot close an input file.

Recommended action: No action is required.

0005/0006

Meaning and possible cause: A PRU cannot close a file it used for output data. This can be caused by disk being full.

Recommended action: Perform a disk audit and restart the job.

Table 6-A (continued)
Common messages

0005/0007

Meaning and possible cause: A PRU cannot open a file. It can be caused by disk being full.

Recommended action: Perform a disk audit and restart the job.

0005/0008

Meaning and possible cause: A PRU failed to write data to a file. This can be caused by disk being full.

Recommended action: Perform a disk audit and restart the job.

0005/0009

Meaning and possible cause: The specified data collector cannot close the translation file.

Recommended action: No action is required.

0005/000A

Meaning and possible cause: The PRU cannot open the Operating Company translation file to process the data it collected.

Recommended action: If the problem persists when the job is rescheduled, reboot the PRU.

0005/000B

Meaning and possible cause: The data collector fails to read data from the Operating Company translation file.

Recommended action: If the problem persists when the job is rescheduled, reboot the PRU and restart the job.

0005/000C

Meaning and possible cause: A data collector cannot close the Operating Company translation file.

Recommended action: To be determined.

0005/000D

Meaning and possible cause: The PRU failed to read data from a file. This can be caused by the disk being full.

Recommended action: Perform a disk audit and restart the job.

Table 6-A (continued)
Common messages

0005/000E

Meaning and possible cause: The PRU failed to Perform a disk audit and restart the job.

Recommended action: To be determined.

0005/000F

Meaning and possible cause: A PRU encountered problem when performing an I/O operation on it.

Recommended action: If the problem persists when the job is retried, courtesy down the PRU and return it to service.

0005/0010

Meaning and possible cause: The PRU failed to locate a record in the file.

Recommended action: If the problem persists when the job is retried, courtesy down the PRU and return it to service.

0005/0011

Meaning and possible cause: The PRU failed to create a directory.

Recommended action: Reboot the PRU. If this fails, perform a disk audit. If this fails to correct the problem, reboot the DNC system.

0005/0012

Meaning and possible cause: The PRU failed to delete a directory.

Recommended action: Reboot the PRU. If this fails, perform a disk audit. If this fails to correct the problem, reboot the DNC system.

0005/0013

Meaning and possible cause: The OM collector failed to delete a file.

Recommended action: Reboot the PRU. If this fails, perform a disk audit. If this fails to correct the problem, reboot the DNC system.

0005/0014

Meaning and possible cause: The data collector failed to close the checkpoint recovery file.

Recommended action: Perform a disk audit and restart the job.

Table 6-A (continued)
Common messages

0005/0015

Meaning and possible cause: The data collector failed to open the checkpoint recovery file. This can be caused by disk being full.

Recommended action: Perform a disk audit. If this fails to correct the problem, stop collection from all switches and courtesy down the collector. Return the collector to service and restart collection.

0005/0016

Meaning and possible cause: The data collector failed to write to the checkpoint recovery file. It can be caused by disk being full.

Recommended action: Perform a disk audit and restart the job.

0005/0017

Meaning and possible cause: The data collector fails to read from the checkpoint file. If problem persists when the job is rescheduled, stop collection from all switches.

Recommended action: Reboot the Data Collector PRU and restart collection.

0005/0018

Meaning and possible cause: Manually delete the indicated directory.

Recommended action: The application failed to delete the temporary directory listed. Contact NT field support to remove this directory manually.

0005/0019

Meaning and possible cause: The PRU failed to dump out the record from the checkpoint recovery file.

Recommended action: Reboot the PRU and restart the job.

0006/0001

Meaning and possible cause: The data collector failed to obtain the next block of data from the DMS-100 switch.

Recommended action: If the problem persists when the job is rescheduled, log off from all the switches, and reboot the Data Collector PRU. Then log on to the switch again and restart data collection.

Table 6-A (continued)
Common messages

0006/0002

Meaning and possible cause: Unable to inform Application Guardian of job completion.

Recommended action: Check that the Application Guardian is in a working state. If so, reschedule the job. If the problem persists, reboot the Application Guardian PRU.

0007/0001

Meaning and possible cause: The PRU failed to read the parameter configured in its init file and has defaulted it.

Recommended action: No action is required.

0007/0002

Meaning and possible cause: The PRU failed to read the parameter configured in its init file and has defaulted it.

Recommended action: No action is required.

0007/0003

Meaning and possible cause: The number of file buffers configured in the SMDR collector's init file is too large and is defaulted.

Recommended action: No action is required.

0007/0004

Meaning and possible cause: The number of file buffers configured in the SMDR Collector's init file is too small and is defaulted.

Recommended action: No action is required.

0007/0005

Meaning and possible cause: Failed to register name with system. Application aborted.

Recommended action: Verify that there are not too many names registered with the same server.

Table 6-A (continued)
Common messages

0007/0006

Meaning and possible cause: The SMDR Collector encountered an error reading the bogus customer configured in its init file.

Recommended action: Contact NT field support to manually correct the SMDR Collector's init file. Then reboot the SMDR Collector PRU.

0007/0007

Meaning and possible cause: The SMDR Collector has encountered an invalid NOS customer reference in a bogus customer entry in its init file.

Recommended action: Contact NT field support to manually correct the SMDR Collector's init file. Then reboot the SMDR Collector PRU.

0007/0008

Meaning and possible cause: The number of bogus customers in the SMDR Collector's init file is too small.

Recommended action: The value is defaulted. No action is required.

0008/0001

Meaning and possible cause: A communication or DMS-100 error has occurred. A later log will indicate the detail.

Check the switch to determine if the problem is with the DMS-100. If problem persists, log off from all nodes and reboot the Communication Server PRU. Then log on to the nodes again and restart data collection.

0008/0002

Meaning and possible cause: This log indicates details of the DMS-100 or Communication problem detected by the data collector.

Recommended action: Check accompanying logs for details.

0008/0003

Meaning and possible cause: The data collector failed to request Communication Server to start transmitting data from the DMS-100 switch.

Recommended action: Check that the Communication Server is in working state. If the problem persists when the job is rescheduled, log off from all nodes and reboot the Communication Server PRU. Log on to the nodes again and restart data collection.

Table 6-A (continued)
Common messages

0008/0004

Meaning and possible cause: The data collector failed to start the demand transfer request due to no valid communication session with the switch.

Recommended action: Log off from the switch and log on again to restart collection. If the problem persists, log off from all nodes and reboot the Communication Server PRU. Log on to all nodes again and restart collection.

0008/0005

Meaning and possible cause: The data collector failed to start the demand transfer request due to no valid communication session with the switch.

Recommended action: Log off from the switch and log on again to restart collection. If the problem persists, log off from all switches, courtesy down Communication Server and then return it to service. Then log on to all switches again and restart collection.

0008/0006

Meaning and possible cause: The data collector failed to establish a communication session for customer.

Recommended action: Verify that the node is up and running and has not been rebooted since this communications session was started. Verify that the communications link is functioning.

0008/0007

Meaning and possible cause: Unable to confirm or to report a specified operation for a specified customer. This problem is usually caused by the failure of a communication session before a response to the request can be returned to the specified customer.

Recommended action: The customer must reestablish the session and then repeat the request.

0008/0008

Meaning and possible cause: Communication problems are reported by a specific customer. This message indicates that a communication session for the specified customer has failed.

Recommended action: Check all communication server PRUs on this system and on the customer's system to ensure that they are all in a working state.

Table 6-A (continued)
Common messages

0009/0001

Meaning and possible cause: The data collector failed to list files on the DMS-100 switch.

Recommended action: Log off from the switch and log on again. If the problem persists, check at the DMS-100 to assure that the data type is defined there. Use the MAP command string MAPCI; MTC; IOD; XFER on the specified switch.

0009/0002

Meaning and possible cause: There is no active data file on the DMS-100 switch to start data transfer.

Recommended action: Check the specified switch.

0009/0003

Meaning and possible cause: There is no active file on the DMS-100 switch to start realtime transfer.

Recommended action: Check the specified switch.

0009/0004

Meaning and possible cause: DMS-100 switch system problem. Standby files contain data.

Recommended action: Check the specified switch.

0009/0005

Meaning and possible cause: A busy DMS-100 file is skipped. Data collection will continue.

Recommended action: Check the specified switch.

0009/0006

Meaning and possible cause: There is a problem with the DMS-100 Interface PRU.

Recommended action: Reboot the DMS-100 Interface PRU. If the problem persists, reboot the Applications Processor on which the DMS-100 Interface PRU resides.

Table 6-A (continued)
Common messages

000A/0001

Meaning and possible cause: A process was unable to obtain memory for interprocess communication.

Recommended action: If the problem persists, reboot the SRU on which the specified PRU resides.

000A/0002

Meaning and possible cause: A process was unable to get memory for sorter.

Recommended action: If the problem persists, reboot the SRU on which the specified PRU resides.

000A/0003

Meaning and possible cause: A process was unable to obtain enough memory for all customers to start job.

Recommended action: If the problem persists, reboot the SRU on which the specified PRU resides.

000A/0004

Meaning and possible cause: A process was unable to obtain memory for a list of owners.

Recommended action: If the problem persists, reboot the SRU on which the specified PRU resides.

000B/0001

Meaning and possible cause: A data collector was unable to find checkpoint recover record to perform a demand recovery.

Recommended action: If the problem persists, stop collections of this data type from all switches and reboot the data collector PRU. Then restart data collections.

000B/0002

Meaning and possible cause: The collector failed to open the checkpoint recovery file when performing a demand transfer.

Recommended action: Start the collect mode.

Table 6-A (continued)
Common messages

000B/0003

Meaning and possible cause: The collector failed to change the DMS-100 switch status of the collected file from unprocessed to processed.

Recommended action: A manual status change on the specified switch is required.

000B/0004

Meaning and possible cause: An error occurred in updating the checkpoint recovery record.

Recommended action: The job is rescheduled. If the problem persists, stop collection of this data type from all switches, and then reboot the collector and restart collection. If the problem still persists, perform a disk audit in case the problem is caused by the disk being full.

000B/0005

Meaning and possible cause: An error occurred while adding a new checkpoint recovery record.

Recommended action: The job is rescheduled. If the problem persists, stop collection of this data type from all switches, and then reboot the collector and restart collection. If the problem still persists, perform a disk audit in case the problem is caused by the disk being full.

000B/0006

Meaning and possible cause: A process was unable to update end field of checkpoint recovery record.

Recommended action: The job is rescheduled. If the problem persists, stop collection of this data type from all switches, and then reboot the collector and restart collection. If the problem still persists, perform a disk audit in case the problem is caused by the disk being full.

000B/0007

Meaning and possible cause: A process was unable to update start field of checkpoint recovery record.

Recommended action: The job is rescheduled. If the problem persists, stop collection of this data type from all switches, and then reboot the collector and restart collection. If the problem still persists, perform a disk audit in case the problem is caused by the disk being full.

Table 6-A (continued)
Common messages

000B/0008

Meaning and possible cause: A process was unable to add new checkpoint recovery record.

Recommended action: The job is rescheduled. If the problem persists, stop collection of this data type from all switches, and then reboot the collector and restart collection. If the problem still persists, perform a disk audit in case the problem is caused by the disk being full.

000B/0009

Meaning and possible cause: An error occurred finding a checkpoint recovery record. The demand transfer request failed.

Recommended action: If the problem persists when the job is rescheduled, stop collection from all switches, and then reboot the collector and restart collection.

000B/000A

Meaning and possible cause: An error occurred finding the checkpoint recovery record to start real time data collection.

Recommended action: If the problem persists when the job is rescheduled, stop collection from all switches, and then reboot the collector and restart collection.

000B/000B

Meaning and possible cause: The checkpoint file is full. A record is deleted. This situation occurs only if there are too many checkpoint records in the recovery file.

Recommended action: The least updated record is deleted. No action is required. Data collection continues.

000D/0001

Meaning and possible cause: An invalid data block was received. Collection will terminate.

Recommended action: Data blocks received from the DMS-100 switch are expected to be in sequence. A likely cause of this exception can be that the data received is corrupted. Reschedule the job.

Table 6-A (continued)
Common messages

000D/0002

Meaning and possible cause: An unexpected block was received. Collection is terminated.

Recommended action: This problem may be due to a communication problem that causes a block of data to be lost. Reschedule the job. If the problem persists, log off from all switches and reboot the Communications Server PRU. Then restart the data collection.

000D/0003

Meaning and possible cause: An unexpected block sequence was received. Collection is terminated.

Recommended action: This problem may be due to a communication problem that causes a block of data to be lost. Reschedule the job. If the problem persists, log off from all switches and reboot the Communications Server PRU. Then restart the data collection.

000D/0004

Meaning and possible cause: An unexpected EOF was received for a listfile transfer.

Recommended action: If the problem persists when the job is rescheduled, stop collections of this data type from all switches. Then reboot the data collector PRU and restart the collections.

000D/0005

Meaning and possible cause: An unexpected EOT was received for the current transfer mode.

Recommended action: If the problem persists when the job is rescheduled, stop collections of this data type from all switches. Then reboot the data collector PRU and restart the collections.

000D/0006

Meaning and possible cause: The last block received does not match the checkpoint recovery.

Recommended action: If the problem persists when the job is rescheduled, stop collections of this data type from all switches. Then reboot the data collector PRU and restart the collections.

Table 6-A (continued)
Common messages

000D/0007

Meaning and possible cause: An unexpected EOT EOF was received for current transfer mode.

Recommended action: If the problem persists when the job is rescheduled, stop collections of this data type from all switches. Then reboot the data collector PRU and restart the collections.

000D/0008

Meaning and possible cause: Too many bad blocks were received. The bad count is given.

Recommended action: If the problem persists when the job is rescheduled, stop collections of this data type from all switches. Then reboot the data collector PRU and restart the collections.

000D/0009

Meaning and possible cause: An undefined file status was encountered on a DMS-100 file. The Data Collector will terminate.

Recommended action: If the problem persists when the job is rescheduled, stop collections of this data type from all switches. Then reboot the data collector PRU and restart the collections. If this procedure fails, log off from all switches and reboot the Communication Server PRU. Then log on to the switch again and restart collection.

000D/000A

Meaning and possible cause: Too many blocks were received from the DMS-100 switch. The Data Collector will terminate.

Recommended action: This indicates that there are too many successive bad data blocks received. If this problem persists when the job is rescheduled, the data file on DMS may contain invalid blocks.

000D/000B

Meaning and possible cause: An unknown record type was received. The particular record is ignored.

Recommended action: Data collection will continue.

Table 6-A (continued)
Common messages

000D/000C

Meaning and possible cause: An unexpected file status was encountered on a DMS-100 file. The Data Collector will terminate.

Recommended action: If the problem persists when the job is rescheduled, stop collections of this data type from all switches. Then reboot the data collector PRU and restart the collections. If this procedure fails, log off from all switches and reboot the Communication Server PRU. Then log on to the switch again and restart collection.

000D/000D

Meaning and possible cause: The current block ID was greater than expected from the recover file. This problem can occur due to a communication problem causing a block of data to be lost.

Recommended action: Reschedule the job. If the problem persists, log off from all switches and reboot the Communication Server PRU. Then restart the data collection.

000D/000E

Meaning and possible cause: There is no trunk CLLI name match for the trunk group in the Telco translation file.

Recommended action: No action is required.

000D/000F

Meaning and possible cause: An unexpected EOF was received for a start collect.

Recommended action: If the problem persists when the job is rescheduled, stop collections of this data type from all switches. Then reboot the data collector PRU and restart the collections.

000D 0010

Meaning and possible cause: An unexpected EOTPRE was received for the current transfer mode.

Recommended action: If the problem persists when the job is rescheduled, stop collections of this data type from all switches. Then reboot the data collector PRU and restart the collections.

Table 6-A (continued)
Common messages

000F/0001

Meaning and possible cause: A process was unable to obtain the DNC ownership from the Owner Profile Table.

Recommended action: Check that the DNC Owner name is datafilled properly in the Owner Profile Table.

0010/0001

Meaning and possible cause: A process was unable to register a collected file with the File Manager.

Recommended action: Reboot the File Manager PRU, and then restart the data collection.

0012/0001

Meaning and possible cause: A process was unable to read the Customer Table in the Installation Profile.

Recommended action: Check that the Customer Table is datafilled properly with customers who want to access a feature.

0012/0002

Meaning and possible cause: A process was unable to find a customer in the Customer Table.

Recommended action: Check that the customer name is datafilled in the Customer Table.

0012/0003

Meaning and possible cause: The number of customers allowed to collect data has exceeded its limits.

Recommended action: Remove the datatype in Customer Feature Profiles for customers who do not wish to collect this data type.

0012/0004

Meaning and possible cause: The Customer table is empty.

Recommended action: All customers that want to collect data must be datafilled in the Customer Table.

Table 6-A (continued)
Common messages

0013/0001

Meaning and possible cause: Customer Feature Profiles indicate that no customers wish to collect this data type.

Recommended action: Check the Customer Feature Profile for all customers listed in the Customer Table. Ensure that at least one customer for this location is datafilled to collect the data type.

0013/0002

Meaning and possible cause: A process was unable to read from the Customer Feature Profile.

Recommended action: Check that the Customer Feature Profile for the specified customer has been properly datafilled to access the desired feature.

0016/0001

Meaning and possible cause: An error occurred searching on a CLLI in the Trunk Table.

Recommended action: If the problem persists when the job is rescheduled, stop collections of this data type from all switches. Then reboot the data collector PRU and restart the collections.

0016/0002

Meaning and possible cause: A process was unable to open the Trunk Table.

Recommended action: If the problem persists when the job is rescheduled, stop collections of this data type from all switches. Then reboot the data collector PRU and restart the collections.

0016/0003

Meaning and possible cause: A process was unable to close the Trunk Table.

Recommended action: No action is required.

0016/0004

Meaning and possible cause: The Trunk table is empty.

Recommended action: Datafill the Trunk CLLI that is owned by each customer in the Trunk Table.

Table 6-A (continued)
Common messages

0017/0001

Meaning and possible cause: Unable to open the Customer Group Table.

Recommended action: If problem persists when the job is rescheduled, stop collection of this data type from all switches. Then reboot the collector PRU and restart collection. If the problem still persists perform a disk audit in case it is caused by the disk being full.

0017/0002

Meaning and possible cause: Unable to close the Customer Group Table.

Recommended action: No action is required.

0017/0003

Meaning and possible cause: The Customer group is not in Customer Group Table.

Recommended action: Datafill the Customer Group Table with the customer group.

0018/0001

Meaning and possible cause: Unable to open the Virtual Facility Trunk Table.

Recommended action: If problem persists when the job is rescheduled, stop collection of this data type from all switches. Then reboot the collector PRU and restart collection. If the problem still persists perform a disk audit in case it is caused by the disk being full.

0018/0002

Meaning and possible cause: Unable to close the Virtual Facility Trunk Table.

Recommended action: No action is required.

001A/0001

Meaning and possible cause: Unable to open the Attendant Subgroup Table.

Recommended action: If problem persists when the job is rescheduled, stop collection of this data type from all switches. Then reboot the collector PRU and restart collection. If the problem still persists perform a disk audit in case it is caused by the disk being full.

Table 6-A (continued)
Common messages

001A/0002

Meaning and possible cause: Unable to close the Attendant Subgroup Table.

Recommended action: No action is required.

001B/0001

Meaning and possible cause: Error communicating with Guardian.

Recommended action: Check if the Application Guardian PRU is in the working state. If so, and if the problem persists, reboot the Application Guardian PRU and restart the job. This action may cause other jobs that are currently in progress to abort.

001B/0002

Meaning and possible cause: Unable to locate Guardian Task.

Recommended action: Check if the Application Guardian PRU is in the working state. If so, and if the problem persists, courtesy down the Application Guardian PRU and then return it to service. Then restart the job. This action may cause other jobs that are currently in progress to abort.

001B/0003

Meaning and possible cause: Unable to inform Application Guardian of job's ID.

Recommended action: Check if the Application Guardian PRU is in working state. If so, and if the problem persists, reboot the Application Guardian PRU and restart the job.

001B/0004

Meaning and possible cause: An error was encountered communicating with the Application Guardian PRU. Data collection has been aborted.

Recommended action: Check if the Application Guardian PRU is in working state. If so, and if the problem persists, reboot the Application Guardian PRU and restart the job.

001C/0001

Meaning and possible cause: Demand Transfer Request failed.

Recommended action: A previous log indicates the reason for the failure.

Table 6-A (continued)
Common messages

001C/0002

Meaning and possible cause: Start Transfer Report failed.

Recommended action: A previous log indicates the reason for the failure.

001C/0003

Meaning and possible cause: An unexpected confirmation was received from the switch. Data Collection will terminate.

Recommended action: Reschedule the job.

001C/0004

Meaning and possible cause: The system was unable to obtain a communication session for a Data Collector.

Recommended action: Check that the Communication Server is in working state. If so, and if problem persists when job is restarted, stop collections from the switch. Log off the switch and then log on again; then restart the data collection.

001C/0005

Meaning and possible cause: The system was unable to locate a communication server for a Data Collector.

Recommended action: Check that the Communication Server is in working state. If the problem persists when job is rescheduled, stop collection for this data type and reboot the collector. If the procedure still fails, log off all switches and reboot the Communication Server. Then log on to the switch again and restart collection.

001C/0006

Meaning and possible cause: The system was unable to inform the Communication Server to stop data transfer from the DMS-100 switch.

Recommended action: Check that the Communication Server is in working state. If the problem persists when job is rescheduled, stop collection for this data type and reboot the collector. If the procedure still fails, log off all switches and reboot the Communication Server. Then log on to the switch again and restart collection.

Table 6-A (continued)
Common messages

001D/0001

Meaning and possible cause: The Data collector is in an invalid state.

Recommended action: Reschedule the job. If the problem persists, then contact NT field support for assistance.

001D/0002

Meaning and possible cause: Data collector is in an invalid entry state.

Recommended action: Reschedule the job. If the problem persists, then contact NT field support for assistance.

001D/0003

Meaning and possible cause: Unable to locate Application Guardian Task.

Recommended action: Check if the Application Guardian is in the working state. If so, and if the problem persists, courtesy down the Application Guardian. Then return it to service and restart the job.

001E/0001

Meaning and possible cause: A file already has a checkpoint recovery record.

Recommended action: Part of this file has already been collected. Demand recovery mode should be used to collect the remaining portion of the file.

001E/0002

Meaning and possible cause: Invalid transfer mode for data collection.

Recommended action: Stop data collection, reboot the collector PRU and restart collection.

001F/0001

Meaning and possible cause: Unable to locate File Manager for data collection.

Recommended action: Check if the File Manager PRU is in working state. If so, restart the job. If the problem persists, reboot the File Manager PRU and then restart the job again.

Table 6-A (continued)
Common messages

001F/0002

Meaning and possible cause: Failed to obtain pathname from File Manager for storing collected data.

Recommended action: Check if the File Manager PRU is in working state. If so, restart the job. If the problem persists, reboot the File Manager PRU and then restart the job again.

001F/0003

Meaning and possible cause: Failed to obtain file sequence number from File Manager.

Recommended action: Check if the File Manager PRU is in working state. If so, restart the job. If the problem persists, reboot the File Manager PRU and then restart the job again.

001F/0004

Meaning and possible cause: Unable to register file with File Manager.

Recommended action: Reboot the File Manager PRU, and then restart the data collection.

001F/0005

Meaning and possible cause: File Administrator error.

Recommended action: Reboot the File Manager PRU, and then restart the data collection.

001F/0006

Meaning and possible cause: Unable to communicate with File Administrator.

Recommended action: Check if the File Manager PRU is in working state. If so, restart the job. If the problem persists, reboot the File Manager PRU and then restart the job again.

001F/0007

Meaning and possible cause: Unable to register a file with the file manager.

Recommended action: Reboot the File Manager PRU, and then restart the data collection.

Table 6-A (continued)
Common messages

001F/0008

Meaning and possible cause: Unable to deregister a file with the file manager.

Recommended action: No action is required.

001F/0009

Meaning and possible cause: Unable to create a directory with the File Manager PRU when storing data.

Recommended action: Reboot the File Manager PRU, and then restart the data collection.

0020/0001

Meaning and possible cause: Number of customer allowed to collect data has exceeded its maximum.

Recommended action: Remove the datatype in the Customer Feature Profiles table for customers who do not want to collect this data type.

0020/0002

Meaning and possible cause: No customer is entitled to collect this type of data.

Recommended action: Check the Customer Feature Profiles Table for all customers listed in the Customer Table to ensure at least one customer for this location is datafilled to collect the data type.

0021/0001

Meaning and possible cause: An accumulation directory was created for FS3. The specified collector has collected data and created a new directory for storing it.

Recommended action: No action is required.

0022/0001

Meaning and possible cause: Unable to locate the Application Scheduler.

Recommended action: Check if the Application Scheduler PRU is in working state. If so, restart the job. If the problem persists, reboot the Application Scheduler PRU and then restart the job again.

Table 6-A (continued)
Common messages

0023/0001

Meaning and possible cause: Unable to access the Mask Table.

Recommended action: If the problem persists when the job is rescheduled, reboot the PRU.

0026/0001

Meaning and possible cause: Unable to initiate sorter.

Recommended action: If the problem persists when the job is rescheduled, reboot the PRU.

0026/0002

Meaning and possible cause: Unable to enter a record into the sorter.

Recommended action: If the problem persists when the job is rescheduled, reboot the PRU.

0026/0003

Meaning and possible cause: Unable to inform the sorter that data entry into the sorter was finished.

Recommended action: If the problem persists when the job is rescheduled, reboot the PRU.

0026/0004

Meaning and possible cause: Unable to retrieve a record from the sorter.

Recommended action: If the problem persists when the job is rescheduled, reboot the PRU.

002A/0001

Meaning and possible cause: The database for the selected customer could not be opened. This occurs if the database is already open (by either the Operating Company or the customer) or if the user (Operating Company or customer) was trying to access a non-existent database. This error also occurs if the database access task, called the SA Database Task (DT), or the database supervisor task, called the Database Supervisor (DL), or both, are not in a 'working' state.

Recommended action: Note that only the Operating Company can correct this problem. It is corrected by going into the maintenance state and returning one or both of these tasks to a working state.

Table 6-A (continued)
Common messages

002A/0002

Meaning and possible cause: A Database update failed for a customer.

Recommended action: Check that the SA Database Task (DT) and Database Supervisor (DL) are both in working states.

002A/0003

Meaning and possible cause: A Database Commit failed for a customer.

Recommended action: Check that both the SA Database Task (DT) PRU and Database Supervisor (DL) PRU are in working states.

7. Fault clearing procedures (FP)

FP-1: responding to alarms

Reference: 450-1011-301. When an alarm is activated, the following procedures are normally carried out:

1 Silence the alarm using one of the following methods:

- Press the Alarm Cut-Off (ACO) button on the Alarm Interface Unit (ALIU), or
- Press softkey <ACO> at the Alarm Query menu in System Administrative Services (SAS).

2 Inspect the Alarm History File at the Alarm Query menu in SAS,

3 Make the alarm pending by selecting the alarm message and pressing softkey <Pending> at the Alarm Query menu in SAS.

4 Look up the message(s) in Chapters 2 through 6 of this appendix and take the indicated action.

Note:

If the message cannot be found in Chapters 2 through 6 of this appendix, look for it in 450-1011-511.

5 Clear the alarm by selecting the alarm message and pressing softkey <Clear> at the Alarm Query menu in SAS.
The alarm is cleared. The alarm message will be retained in the Alarm History File until overwritten by other messages.

FP-2: responding to logs

Reference: 450-1011-301.When a log message appears on the printer, the following procedures are normally carried out:

1 Look up, in Chapters 2 through 6 of this appendix, the message(s) in the table that corresponds to the type of log (Common, Database, and so on).

Note:

If the message cannot be found in Chapters 2 through 6 of this appendix, look for it in 450-1011-511.

2 Take the action indicated for the message.

FP-3: requesting assistance

Reference: 297-0201-019 and 297-1001-021. When the customer cannot solve the problem that is encountered, or when contact with NT is recommended, the following procedure is used:

1 Create a written record of actions that led up to the problem.

2 Categorize the problem by severity according to the guidelines given in 297-0201-019.

3 Contact the Emergency Technical Assistance (ETAS) department at the telephone number provided in 297-1001-021.

FP-4: restarting a PRU

Reference: 450-1011-301. This procedure for restarting a PRU is abridged from 450-1011-301. Consult the publication for complete details.

- CAUTION -

Before restarting a PRU, stop any jobs that are using the PRU. This is done from a DNC terminal by accessing the menu display for the feature and pressing the softkey that stops the function (ref. 450-1021-311, -312, or -313).

1 Sign on using a “System Administrator” level UserID.

2 Select “System Administration” from the main menu and press **ENTER**. This starts the System Administrative Services (SAS) program.

3 Use arrow keys to select the SRU that contains the PRU to be restarted and press **ENTER**. The display shows the PRU contents of the selected SRU.

4 If the PRU is in service, use arrow keys to select the PRU to be restarted. Press softkey **<Courtesy Down>** to take the PRU out of service. The status of the PRU then changes to "down".

5 Use arrow keys to select the PRU to be restarted. Press softkey **<Return to Service>.** This re-starts the PRU and, in effect, initializes it. After a few minutes, the status of the PRU changes to “working,” which means it is in service again.

Note:

If the PRU status does not change to "working", it indicates that it is corrupted and may have to be re-loaded.

6 Restart other PRUs in the same way, or press an <Exit>-type softkey to return to the BNM main menu.

FP-5: disk audit

A manual disk audit is used to erase unused files from the DNC hard disk. This frees up extra disk space for incoming data.

Note:

It is not necessary to stop any current tasks, such as data collection or service order processing, to perform a disk audit.

1 From the main menu, select "Administrative Services." The System Administrative Services (SAS) menu appears.

2 Select "Helix Command Interpreter." The Helix command prompt ">" appears.

3 Type in the command string:

STATUS :LOCAL

and press **ENTER**. The resulting message shows the time of the last disk audit.

4 Type in the command string:

FSADMIN :LOCAL FORCE

and press **ENTER**. The audit begins. Wait for 15 minutes, type in the command string:

STATUS :LOCAL

and then press **ENTER**. The resulting message shows the time of this audit.

5 Type in the command:

QUIT

and press **ENTER**. The terminal exits from Helix and returns to the SAS menu.

6 Press <Exit> to return to the main menu.

FP-6: rebooting the file manager PRU

In a number of log messages, the recommended action is to reboot the File Manager PRU. This procedure can cause serious problems if all the collectors are not stopped first. To avoid this problem, carry out the following sequence of steps:

1 Terminate any Call Tracking activity.

2 Courtesy down the KT Collector PRU.

3 Courtesy down the SMDR Collector PRU.

4 Courtesy down the OM Collector PRU.

5 Courtesy down the ATT Collector PRU.

6 Courtesy down the Data Spooling Agent PRU.

7 Courtesy down the Spooling Supervisor PRU.

8 Reboot the File Manager PRU.

9 Return the Spooling Supervisor PRU to service.

10 Return the Data Spooling Agent PRU to service.

11 Return the ATT Collector PRU to service.

12 Return the OM Collector PRU to service.

13 Return the SMDR Collector PRU to service.

14 Return the KT Collector PRU to service.

15 Resume Call Tracking activity as required.

Abbreviations

The following abbreviations are encountered in this appendix:

ACO	Alarm Cut-Off
ALIU	Alarm Interface Unit
AMA	Automatic Message Accounting
APIO	ASCII Program Input-Output
ATM	Activity Task Manager
ATT	Automated Trunk Test
BNM	Business Network Management
CI	Command Interpreter
CLLI	Common Language Location Identifier
CMAP	Centralized Maintenance and Administration Position
CNOS	Customer Network Operation System
COM	Common log subsystem
COMMS	Communications Link program
COSMOS	Computer System for Mainframe Operations
DB	Database
DBCP	Database Control Program
DBTM	Database Task Manager
DMS	Digital Multiplex System
DNC	Dynamic Network Control
DVS	Data-Voice System
EOT	End of Tape
EOF	End of File
ETAS	Emergency Technical Assistance Service
FGMP	Fully Generic MMI Program (interacts with SDM)
GDA	Generic Database Access
HI	Helix (command) Interpreter (NT personnel only)

I/O	Input or Output
KT	Killer Trunk
LAN	Local Access Network
LED	Light Emitting Diode
LEN	Line Equipment Number
LIU	LAN Interface Unit
LMOS	Loop Maintenance Operations System
MAD	Monitoring and Analysis Database
MAP	Maintenance and Administration Position
MDC	Meridian Digital Centrex
NCD	Network Configuration Database
NOP	Network Operations Database
NOS	Network Operations System
NPA	Numbering Plan Area
NT	Northern Telecom
OAM	Operations, Administration, and Maintenance
OM	Operational Measurements
PRU	Program Resource Unit
RAO	Regional Accounting Office
RRU	Remote Resource Unit
RU	Resource Unit (SRU, PRU, RRU)
SAS	System Administrative Services (see 450-1011-301)
SDM	Service Data Manager (interacts with FGMP)
SMDR	Station Message Detail Recording
SRU	Shared Resource Unit

Network Operations Systems

Business Network Management

BNM-Specific Log Messages and Maintenance

Release NSR28 and up
Standard
March, 1991
Softcopy prepared in Canada.