555-7001-510

Meridian Mail

Maintenance Messages (SEERs) Reference Guide

Product release 13 | Standard 1.0 | November 1999

NORTEL NETWORKS™

How the world shares ideas.

P0904493

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Publication number:	555-7001-510
Product release:	13
Document release:	Standard 1.0
Date:	November 1999

Printed in the United States of America

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Publication history

November 1999	Document issue Standard 1.0 for Meridian Mail, Release 13.
January 1998	Document issue Standard 1.0 for Meridian Mail, Release 12. Updates for a number of classes were included in this version

Contents

Chapter 1

Introduction

What are SEERs?

The System Event and Error Reports, (SEERs), generated by the Meridian Mail system software components, identify every significant system event and error that occurs.

An Event is a minor glitch or an announcement of normal system activities (for example, the completion of an automatic tape backup). Events documented in a SEER do not usually indicate a problem with the Meridian Mail functionality.

An Error is a hardware or software fault that may prevent Meridian Mail from functioning properly (for example, a hardware component failed diagnostics, or a failure to find a system file). An error creates one or more SEERs.

SEERs can be displayed on a terminal or printed out on a printer. The reports provide information about the SEER class, SEER number, the severity level of errors, the date and time the SEER was generated, and a description of the event or error that occurred at that time. This information is used primarily by system administrators and maintenance personnel to confirm that a system is running correctly, to isolate a system fault, to diagnose a hardware or software problem, or to solve a problem.

You must be able to read, interpret, and assess the severity of events and errors to determine if they are regular system events (such as a system audit) or system errors. An understanding of SEERs is also essential for diagnosing problems.

Before asking for help in dealing with a major system problem, the system administrator must be ready to provide a collection of SEER reports from which the Nortel Networks support staff can determine the history of the problem. From these reports, maintenance personnel will be able to diagnose the problem effectively.

SEERs are printed and stored on the system disk at the time of the error or event. The SEERs stored on disk can be viewed or printed at a later time. See “Parts of a SEER” for an example of a SEER.

Each SEER is identified by a number consisting of two parts:

SEER Class, which classifies a particular software component

SEER Number, which identifies a particular report for a class

For example, SEER 6603 is SEER number 03 from class 66.

Note 1: Due to ongoing improvements in the software, there may be instances where the information on the SEER itself is different from the information presented in the SEER manual (this document). Should this occur, the information in the SEER printed out by your system should take precedence.

Note 2: Some SEERs have not yet been categorized and may be printed regardless of their severity. Further refinements to the categorization process will be made in subsequent releases of Meridian Mail software. SEERs that are not categorized are treated as minor errors.

How this reference manual is organized

This book is organized into three parts.

The first part, consisting of this chapter, is an introduction to SEERs. SEER categories are described, and examples are given, and SEER filtering and throttling are discussed.

The second part contains one chapter for each SEER class. Each chapter introduces the SEER class, and in numeric order describes the SEER reports belonging to that class.

The last part of the manual is an appendix. Return codes and error codes are listed by SEER class along with a brief description of each code. Several related codes are also listed here.

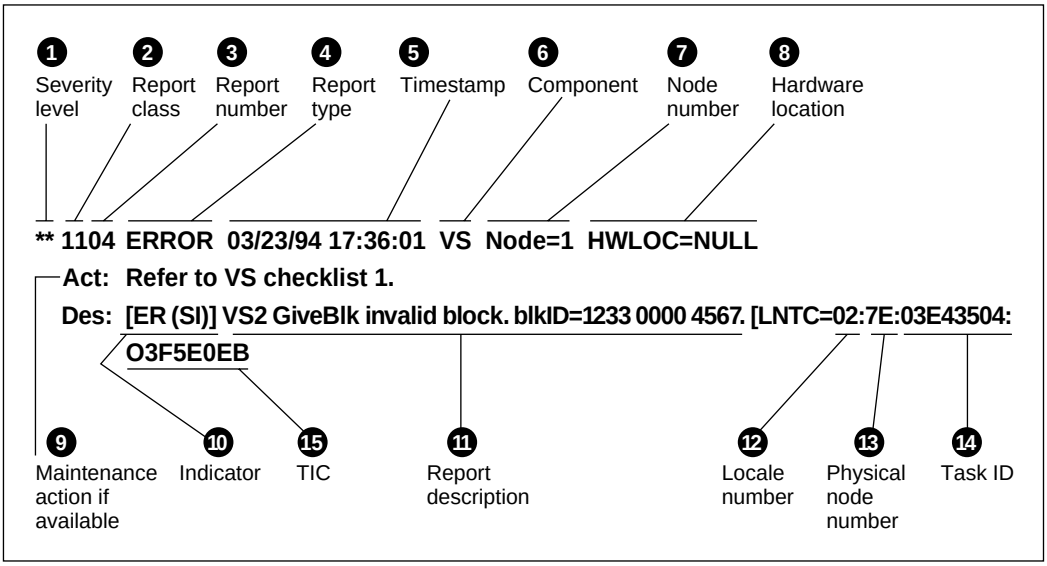
Related documents

The following documents are frequently used as additional references to fix a system event or error, presented as a SEER or return code.

Meridian Mail NTP	Platform
Installation and Maintenance Guide (NTP 555-7061-250)	Modular Option EC
Installation and Maintenance Guide (NTP 555-7041-250)	Modular Option
Installation and Maintenance Guide (NTP 555-7051-250)	Modular Option GP
Installation and Maintenance (NTP 555-7071-210)	Card Option

Parts of a SEER

The following diagram highlights the information provided by a typical SEER. This particular example shows a SEER with a maintenance action. Only five SEER classes (classes 11, 14, 25, 59 and 66) have been enhanced to include a maintenance action category. See the “Maintenance actions” section on page 14 for additional information.



A SEER generally contains the following pieces of information:

See diagram	Part of the SEER	For Information, see page
1	Severity level	4
2	Report class	5
3	Report number	5
4	Report type	5
5	Timestamp*	6
6	Component name*	6
7	Node number*	10
8	Hardware location*	10
9	Maintenance action (for a limited set of report classes)	14
10	Indicator to show whether the SEER has been remapped or escalated, or a trigger has been set	13
11	Description	14
12	Locale number*	15
13	Physical node number	14
14	Task ID*	15
15	TIC (time in Centiseconds)	15

***** Indicates information that is unlikely to be of immediate use to a system administrator, but may be requested by Nortel Networks support.

See the following sections for further details on each part of a SEER.

Severity level

To help you judge how serious a system problem might be, SEERs have been classified according to various severity levels. These classifications are based on the impact of the operation that has failed. The following is a list of severity levels that may appear in the printed SEER:

INF	This is an information SEER
*	This indicates a minor problem.
**	This indicates a major problem.
***	This indicates a critical problem.
OFF	This indicates that an alarm has been turned off.

When using the SEER severity classification, you can filter out all but the most severe problems in order to deal with them quickly. As a further source of information about severity levels, see the section in this chapter entitled "Filtering" on page 21 for different SEER severity levels.

Report class

The report class is a group of SEER reports which pertain to a particular component. For example, report class 22 deals with the Voice Messaging software component, report class 102 deals with the User Interface, etc. Refer to Table 1-1 for a listing of the components and their class numbers.

This manual devotes a chapter to each report class. The overview page of each chapter defines the function of the software component and the impact (if any) that errors in the component have on the system. For example, Class 11, Volume Server errors can prevent access to accounts on the volume associated with the volume server.

SEERs of different classes may contain slightly different formats and parameters, as described in the overview page for each class. For example, Report Class 24 SEERs contain locale and channel numbers, and the overview page explains how the channels are numbered.

Report class 99 does not exist. However, a SEER with class 99 and report number 99 is produced whenever a software component attempts to use an invalid SEER class. See "SEER 9999" for details.

Report number

Each SEER class contains up to 100 separate reports which are identified by a report number. This number ranges from 0 to 99 and represents a specific report for a particular class. For example, SEER Number 01 in Class 20 concerns an integrity error in the Voice Handler.

Depending on the problem, reports may generate one of several messages. For example, Class 56, report number 32, generates 26 different messages.

Report type

SEERs are also categorized by report type. Each report type provides an indication of the type of problem which exists. The following types of SEERs are reported:

- ERROR Error-level SEER may indicate a system problem, to be corrected by the administrator.
- ADMIN Administrative-level SEER may indicate a system or configuration problem which can be handled by the system administrator without external assistance.
- SYSTEM System-level SEER indicates normal system behavior, and no action is usually required.
- DEBUG Debugging SEERs provide detailed information on low-level system behavior, which allows further analysis when a system problem is expected.
- CRIALRM A SEER which turns off the critical alarm
- MAJALRM A SEER which turns off the major alarm
- MINALRM A SEER which turns off the minor alarm.

See the subsection “Filtering” for more details.

Timestamp

The timestamp (date and time, in the format dd/mm/yy hh:mm:ss) indicates the precise time the event or error occurred. It indicates either the Meridian 1 time sent to the Meridian Mail system via the AML/ISDN Applications Protocol Link (Meridian 1 systems) or the time generated by the RSM card (DMS/SL-100 systems).

Component name

Each class is represented by a component name and a class number. The component name is identified by an acronym (class string ID) that is used in the SEER report format. For additional information, see the section in this manual for the specific SEER Class.

Table 1-1
Identification of component name

Class string ID	Description	Class number
AD	Administration base	30
ADS	Administration Server	95
AML	Application module link	25
API	Datafile and API	79
AS	Admin server	94

Table 1-1
Identification of component name (Continued)

Class string ID	Description	Class number
ATA	Analog transfer agent	37
AUF	Administration User File	96
BSD	Bus Controller Switch Over Diagnostic	75
BCD	Bus Controller Switch Over Diagnostic	18
BURP	Backup and restore program	15
CCA	Centralized call answering	56
CM	Cabinet access method	12
DA	Datafile and API	79
DB	Debugger	65
DD	Disk data interface	10
DEEH	Card Option ESDI emulation handler	68
DM	Disk manager	66
DNU	Delivery to non-users	92
DR	Directory server	31
DT	Dialing translation	115
DC	Diagnostic Utility	48
FD	Front desk console	72
FH	Fax handler	81
FIM	Fax item maintenance service	83
FM	Forms manager	43
FP	Fax printing	85
FST	File server Pascal utilities	19
FX	Fax ASCII translation	82
GTI	Generic telephony interface	28
HAS	Hospitality administration server	70

Table 1-1
Identification of component name (Continued)

Class string ID	Description	Class number
HD	Hardware database	39
MAD	Maintenance administrator	61
MCA	Multimedia outcalling agent	84
MI	MI server and interface	14
MOD	Modem Diagnostic	23
MRS	MR Server	78
MS	Man Machine Interface server	40
MTA	Message transfer agent	32
MTP	MI Tape Procs	59
MWI	Message waiting indicator audit	91
NA	Network administration	108
NMTA	Network message transfer agent	36
NS	Name Server	80
OCA	Outcalling agent	110
OCS	Outcalling server	90
OFS	Open file server	13
OM	Operational measurements	33
OSP	Operating system program	64
OTA	Open access transfer agent	42
PLH	PMS link handler	71
PP	Peripheral processor	26
PRM	Program resource manager	60
RA	Remote activation	107
RBD	Utility card (NT6P03 / NT6P42) Diagnostics	54
RN	Remote notification	93

Table 1-1
Identification of component name (Continued)

Class string ID	Description	Class number
RR	Restore and recovery	112
RSM	RS-232 service module	63
RU	Remote User Administration	77
RVS	Remote voice services	109
SBR	Selective Backup and Restore	76
SDD	SCSI Diagnostic	73
SDT	SCSI Driver Utilities	67
SMDI	Simplified message desk interface	38
SN	SNMP Server	88
SS	SEER server	35
SC	Software Configuration	16
SC	Software Configuration	17
SC	Software Configuration	100
TC	Toolkit communications	52
TD	Thru-dialing	106
TP	Tape driver	59
TK	Voice toolkit	51
TKM	Toolkit master	50
UI	User interface (101)	101
UI	User interface (102)	102
UI	User interface (103)	103
ULMA	Universal Link Monitor	98
UT	User Interface Task	87
VCA	Voice channel allocator	34
VCM	Voice channel maintenance	41

Table 1-1
Identification of component name (Continued)

Class string ID	Description	Class number
VFSU	Voice forms service unit	111
VH	Voice handler	20
VLS	Voiceless Server	58
VM	Voice messaging	22
VMU	Voice menus, Announcements, Time-of-day services, and Fax information service	104
VPD	Voice processor diagnostics	53
VPH	Voice processor handler	24
VPM	Voice prompt maintenance	107
VPTH	Voicepath Diagnostic	74
VS	Volume server	11
VSA	Voice services administration	105
VSA	Voice service administration conversion utilities	55
VSS	Voice base service shell	27
VX	Voice prompt	21
WM	Web Manager	86
—end—		

Node number

Node number indicates the node on which the program reporting the SEER is running. This is not necessarily the node where the problem occurred.

Hardware location

The hardware location (if applicable) identifies the hardware, such as a voice processor card, affected by the problem. A hardware location of “NULL” means either that the problem is not isolated to a single node, or that the software that prints the SEER does not have access to the location.

A non-NULL hardware location consists of up to five digits separated by dashes:

s-n-c-d-p

where s is always 0

n	is the node, from 1 to 20
c	is the card - see Table 1-2 to Table 1-4 below
d	is a dataport, or is the DSP on a voice processor card
p	is the port belonging to the DSP, if ‘d’ is a DSP

The SEER prints only as much of the hardware location as is relevant to the problem. For example, a problem with a card other than a voice processor does not have a digit to identify the DSP or port. A problem that affects an entire node has only the initial zero and the node number.

Table 1-2
Hardware locations - Modular Option and Modular Option GP

Card number printed on SEER	Refers to the card in slot
1	SCSI
2	HABC/MEM2
3	SBC
4	MEM1
5	leftmost VP/GSP
6	second VP/GSP
7	third VP/GSP
8	VP/RSM

Example: 0-2-6-3 refers to node 2, second voice processor card (card 6), third DSP.

Table 1-3
Hardware locations - unshadowed EC

Node number	Card number printed on SEER	Refers to the card in slot numbered:	Card type
1 or 4	**1**	0	NVP
	2	1	NVP
	3	2	NVP
	4	3	NVP
	6	5	Util
	7	6	MMP40
2 or 5	**1**	7 (Z0)	MMP40
	2	8 (Z1)	NVP
	3	9 (Z2)	NVP
	4	10 (Z3)	NVP
	5	11 (Z4)	NVP
3	**1**	0	NVP
	2	1	NVP
	3	2	NVP
	4	3	NVP
	5	4	MMP40

Example: 0-2-4-1-2 refers to node 2, third voice processor card (card 4), first DSP, second port.

Table 1-4
Hardware locations - shadowed EC

Node number	Card number printed on SEER	Refers to the card in slot numbered:	Card type
1, 3 or 5	**1**	0	NVP
	2	1	NVP
	3	2	NVP
	4	3	NVP
	6	5	Util
	7	6	MMP40
2 or 4	**1**	7 (Z0)	MMP40
	2	8 (Z1)	NVP
	3	9 (Z2)	NVP
	4	10 (Z3)	NVP
	5	11 (Z4)	NVP

Indicators

A single character indicator is appended to the front of the SEER's description to identify whether the SEER has been remapped [R], escalated [E], a trigger has been set to trigger mailbox [T] or SNMP [S]. See "Parts of a SEER" on page 3 for a sample SEER message.

If a SEER has been remapped, [R(original level)] is appended to the beginning of the description string. The original level of the SEER is identified in the round brackets as one of the following:

- **DI** Debug Info
- **SI** System Info
- **AI** Admin Info
- **AMi** Admin Minor
- **AMa** Admin Major
- **AC** Admin Critical
- **EI** Error Info
- **EMi** Error Minor
- **EMa** Error Major
- **EC** Error Critical

Any combination of these indicators may appear in a single SEER.

Certain levels of filtering, remapping and throttling may be set through the MMI.

Maintenance action

The maintenance action is a text string specifying an action towards correcting the problem (if any) reported by the SEER. This string is currently supported for the following classes of SEERs:

- 11 (Volume server)
- 14 (MI server and interface)
- 25 (Application Module Link)
- 59 (Tape driver)
- 66 (Disk manager)

Refer to the individual SEER description for details on the maintenance action string.

Description

This portion of the SEER provides a short description of the problem. Abbreviations and codes are used in the message because of space limitations.

Return codes

The description may contain a return code (RC), as shown in the following example:

Example: `**xxyy.....`
Des: system error.... RC=9999

The return code (in this example, “9999”) is an error code returned from lower level software to a higher or calling program. The higher level software generates a SEER containing the lower level return code. For example, when the Voice Processor Handler (Class 24) encounters an error, it passes a return code to the Voice Base Service Shell (Class 27) which produces a SEER.

Appendix A lists all Meridian Mail return codes. The description beside the return code may help you to isolate the problem.

Physical node number

This field indicates the actual node which is generating the SEER. For example, on a CPE system, 7E is Node 1, 7C is Node 2, 7A is Node 3, and 78 is Node 4, and 76 is Node 5.

For an MSM system, use the following table to determine the correct node number:

Table 1-5

Node number	Position of 68K card Shelf-slot	First 8 digits of program ID	Node type
1	Lower 8	01000000	MSP
2	Lower 12	05000000	MSP
3	Lower 30	17000000	SPN
4	Lower 29	16000000	SPN
5	Lower 19	0C000000	SPN
6	Lower 16	09000000	SPN‘
7	Upper 30	37000000	SPN
8	Upper 29	36000000	SPN
9	Upper 19	2C000000	SPN
10	Upper 15	28000000	SPN
13	Lower 25	12000000	TIFN
14	Lower 22	0D000000	TIFN
15	Upper 25	32000000	TIFN
16	Upper 22	2D000000	TIFN

Locale number

This number ranges from 0 to 99 and represents the area in memory in which the program was running. SEERs from the same locale and same node occurring within a short period of time are probably related.

Task ID

This number is the Task ID of the task that issued the SEER.

TIC

TIC is the time in centiseconds between the production of the SEER and the last reboot of Meridian Mail. However, due to the accuracy of the timestamp, the TIC is rarely used.

SEER descriptions

The brief description displayed in the actual SEER does not provide enough information; therefore, a more detailed explanation of each SEER is provided under the appropriate report class section in this manual.

A SEER description contains the *Type* and *Severity* of each SEER, a *Cause* for the SEER and the *Impact* that an error may have on the rest of the Meridian Mail System.

Figure 1-1
Sample SEER description

4003	Minor Error	**Action 2**
Cause:	The MMI server could not read the hardware database or could not obtain disk information.	
Impact:	If the SEER text indicates the failure to read the HWDB, then the configuration record will not be received by the MMI program. The MMI program may display wrong MMI screens based on incorrect platform information. If the SEER text indicates failure to communicate with SD_MMI, the MMI server could not obtain disk information from the specified node.	

An *Action* number appears at the top of the SEER, which refers you to the list of actions available for that particular SEER class. Refer to the appropriate action number on the list at the end of the chapter to determine the action required for the SEER. Many times, the *Action* is to look up the return code in Appendix A to determine the underlying cause.

Figure 1-2
Sample Action Description

Action 2	Problem reading the hardware database or obtaining disk information
Action:	If the MMI server could not read the hardware database, contact your Nortel Networks support organization. If the MMI server could not obtain disk information, verify if the node is faulty or booting. Either condition will cause this error. Otherwise contact your Nortel Networks support organization.

Some problems require you to contact your Nortel Networks support organization for further assistance.

SEERs history report

SEERs history reports may be displayed using the System Event and Error Reports screen. See the “System status and maintenance” chapter of your system administration guide. The following figure shows the format of a SEER history report.

Figure 1-3

Seer history report

```
ABC Company                    System Status and Maintenance

    SEER Period from 5/25/96 01:00 to End of SEER data.

    ErrorDateTime      TypeSeverityNodeLocation, Action, Description

    40- 69/26 04:00SystemInf1    Null
Des:     ms_Server: Bill Table Audit Successfully. 0
    11-509/2604:04DebugInf1    Null
Act:     Close the file opened by the client specified in the SEER.
Des:     VS1 Stale File Version: root=416 Read Client RTId=7E00 0000 100E 3D11
    11-509/2604:20DebugInf1    Null
Act:     Close the file opened by the client specified in the SEER.
Des:     VS1 Stale File Version: root=416 Read Client RTId=7E00 0000 100E 3D11
    33-609/2604:30SystemInf1    Null
Des:     OM Collection Started
    33-609/2604:30SystemInf1    Null
Des:     OM Usage Info Collected for 25/05/96 0
    11-509/2604:36DebugInf1    Null

Select a softkey>
Exit                                   Next Page*
```

* Appears when the information fills more than one screen.

Analyzing SEERs

If you are not familiar with the parameters in the parts of a SEER, read “Parts of a SEER“to learn how to decipher the information in the SEER report.

Often a SEER is preceded by a related SEER from lower level software. The related SEER may have the same return code, same locale and similar time or the same parameter, such as mailbox number. If recommended, look for related SEERs. (Usually the first SEER indicates the cause of the problem.)

Example 1

If you try to add a directory entry to a full volume, a directory error will occur and a SEER will be generated. The SEER will be numbered 3116 (31 in the Report Class field and 16 in the SEER number field) with a return code of 1103 (rc=1103 appears in the return code field).

The SEER class number indicates that something has happened to the Directory Server software component, and the return code indicates that the Volume Server has been affected. You can discover this information by finding the description of the SEER in this NTP (“Class 31, Directory Server”) and by looking up the return code in Appendix A.

By analyzing the return code first, you will discover that the volume is full. Free up space on the volume to add the directory entry.

In this example, the Directory server is called the volume server. The volume server failed to perform a particular function, so it passed a return code back to the Directory Server. The Directory Server issued a SEER and provided the volume server's return code.

Example 2

SEER 2230 means that the Voice Messaging component failed to close a message. As the manual will explain, this SEER is preceded by other SEERS that have the same mailbox number or return code. By working with the various pieces of information in the SEER reports and following the actions recommended in the Maintenance Messages manual, and by following its logical path, you will be able to resolve problems more quickly.

SEER 9999

Whenever a software component attempts to use an invalid SEER class, Meridian Mail prints the SEER using a dummy class 99. The SEER is printed exactly as it would have been if the class had been correct *except that* the class and report are changed to 9999 and the following is added before the original SEER description:

*** Invalid SEER # *nnnn* received ***

SEER types

There are four main SEER types, as follows:

ERROR—Error-level SEERs are those which may indicate a system problem, to be corrected by the administrator, possibly with the assistance of technical support. Examples of Error-level SEERs include: hardware errors; software errors; and indications that a hardware error may develop. Error-level SEERs use one of the Critical, Major, Minor, or Info *Severity* levels described in the following section.

ADMIN—Administration-level SEERs are those which indicate system problems or configuration difficulties that are likely to be handled by the system administrator without external assistance (for example, a non-Meridian Mail user whose calls are forwarded to the Meridian Mail system). Admin-level SEERs use one of the Critical, Major, Minor, or Info *Severity* levels described in the following section.

SYSTEM—System-level SEERs are those which indicate normal system behavior, and others which do not require action (for example, nightly audits by the various sub-systems of Meridian Mail). System-level SEERs are for information only and use the Info *Severity* level described in the following section.

DEBUG—Debug-level SEERs are those which provide detailed information on low-level system behavior, for further analysis when a system problem is suspected. Debug-level SEERs are for information only and use the Info *Severity* level described in the following section.

SEER severity levels

The Error and Admin-level SEERs can use any one of the four levels of severity, that is, *Critical, Major, Minor* or *Info*. However, the System and Debug filtering levels only use the *Info* severity level.

The four levels of severity are defined as follows:

CRITICAL - Any service-affecting problem subject to the following:

It turns on critical alarm relay if a Modular Option EC platform, or maps alarm to major (RSM).

It requires immediate attention by the administrator or technician.

A dropped call is not treated as critical.

"Non-essential" services are not treated as critical.

Examples of critical faults include major base feature not operating, system reboot, or any software configuration problem.

MAJOR - Any service-threatening problem.

It turns on major alarm relay, if available.

It does not require immediate attention but requires work soon, from either the administrator or technician. Major problems should be cleared within 24 hours.

Examples of major faults include an unrecovered hardware fault to a non-critical component such as a tape drive or voice card; volume nearly full; a recovered fault to a critical component; and excessive minor problems.

MINOR - Problems with no impact to the system or users.

No immediate attention required.

A fault can exist for some time.

It turns on minor alarm relay, if available.

INFO - Normal event worthy of logging.

It does not turn on an alarm.

Four types of *Info* messages are defined:

- System Info: event expected to occur

- Error Info: event not expected to occur
- Admin Info: information for administrator
- Debug Info: information for designer

Throttling

Certain events and error conditions can initiate a deluge of SEERs which are sent to the printer, the Message Trigger Mailbox, or SNMP PC. For instance, disabling a node and causing its disk to disappear will create SEERs from any other node attempting to access that disk. The volume of these SEERs can overwhelm an administrator and perhaps cause an important SEER to be overlooked.

A maximum of 50 SEERs at a time can be monitored for throttling.

> SEERs that end with the number 99, (for example, 3599) are special SEERs, and cannot be throttled.

To reduce SEER proliferation, Meridian Mail provides throttling whereby the system administrator can control the flow of duplicate messages for a specified period of time to a specified system device. SEER throttling monitors SEERs and stops sending specific SEERs to the device if too many of that SEER are generated within a given interval. These system devices are printer, Message Trigger Mailbox and SNMP PC. Each device can have a maximum of 50 SEERs monitored at a time and is controlled independent from one another. Note that all SEERs are still captured in the SEER log even though some may be throttled.

The number of SEERs (threshold count) and the time interval (threshold interval) are configured on the “SEER Configuration screen” on the MMI. If the parameters for throttling are exceeded, the throttled SEER will not be sent. The configuration for throttling is stored in the System Profile; therefore, the throttling data does not have to be re-entered after a system reboot.

When SEER throttling is invoked, a SEER is generated to alert users. SEER throttling will “timeout” after an interval and allow the system to continue to send the prohibited SEER to the device. If the original error condition still exists, another spurt of SEERs will be displayed until SEER throttling is triggered again. This provides you with ongoing monitoring of the error situation. See the example below to clarify the process.

Example:

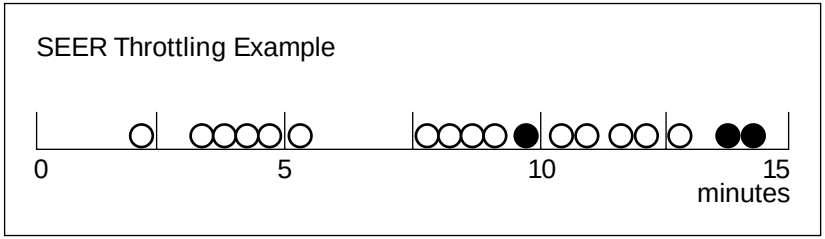
In the case of the printer device, three SEERs are associated with a throttle sequence:

<<Start of throttle>> - the SEER specifies the node number on which the SEER has occurred.

<<Add to throttle>> - the SEER is printed if a throttled SEER occurs for the first time on a node. The node number is specified in the SEER.

<<End of throttle>> - the SEER is printed when the throttle is expired. A list of node numbers and number of occurrences on each node is specified in the SEER.

In the case of the Message Trigger Mailbox and the SNMP PC, only a <<start of Mbox (or SNMP) throttle>> SEER and an <<end of Mbox (or SNMP) throttle>> SEER are printed when throttling begins and ends respectively.



G100412

The black circles indicate instances when the SEER has been throttled. If filtered printing was chosen, the throttled SEER will not be sent to either the Message Trigger Mailbox, or the SEER printer.

Filtering

Filtering allows the total number of SEERs being presented on a system device to be minimized to those requiring the administrator's attention, which should reduce the effort required to process them. This allows the administrator to concentrate on those SEERs which are important and which may indicate system trouble. The configuration for SEER filtering is stored in the System Profile; therefore, the filtering data does not have to be re-entered after a system reboot. As in throttling, these system devices are printer, Message Trigger Mailbox and SNMP PC.

The SEER filters are set on the "SEER Configuration" screen on the MMI. The administrator may choose to filter the SEERs based on the severity, or type of SEER, or both.

The available choices for the severity level may be Critical, Major, Minor or All (for printer only). For the SEER type, the available choices are Error, Admin, System or All (for the printer only). SEERs that have the Mailbox notification field or the SNMP notification field set to "Yes" in the SEER Remap Table are always sent to the corresponding devices regardless of the filtering criteria.

The following chart outlines the various combinations of criteria available for filtering SEERS:

SEER Severity	Error	Admin	System	All
Critical	Error Critical	Error Critical Admin Critical	Error Critical Admin Critical	Error Critical Admin Critical
Major	Error Critical Error Major	Error Critical Error Major Admin Critical Admin Major	Error Critical Error Major Admin Critical Admin Major	Error Critical Error Major Admin Critical Admin Major
Minor	Error Critical Error Major Error Minor	Error Critical Error Major Error Minor Admin Critical Admin Major Admin Minor	Error Critical Error Major Error Minor Admin Critical Admin Major Admin Minor	Error Critical Error Major Error Minor Admin Critical Admin Major Admin Minor
All	Error Critical Error Major Error Minor Error Info	Error Critical Error Major Error Minor Error Info Admin Critical Admin Major Admin Minor Admin Info	Error Critical Error Major Error Minor Error Info Admin Critical Admin Major Admin Minor Admin Info System Info	Error Critical Error Major Error Minor Error Info Admin Critical Admin Major Admin Minor Admin Info System Info Debug Info

SEERs Remapping

SEERs remapping parameters allow the customer or system administrator to remap or reassign the severity level of up to 60 SEERs to a higher or lower severity level. The remapping can be applied to individual SEERs, a range of SEERs within a SEER class, or the entire class. The revised configuration is stored in the System Profile on a disk. The means that the parameters do not have to be re-entered after a system reboot. Parameters are entered on the SEER Remap Table, which is accessed through the System Event and Error Report screen. Refer to the *System Administration Guide* for additional information. Changes are effective immediately upon saving and no system reboot is required. When the altered severity level is no longer required, delete the entry from the SEER Remap Table instead of resetting the severity level back to the original.

Hacker Monitor

In order to monitor hacker activity on Meridian Mail, administrators must set up certain parameters to trigger minor severity SEERs which will highlight suspected hacker activity. Potential hacker situations can be monitored through

Mailbox Login

Thru-dial Services

CLID

Mailbox Login

In order to monitor activity for requested local voice users, the administrator must specify time parameters in the System Access Monitoring period field of the Voice Security Options screen, and set the Monitor Mailbox during Monitoring Period field to YES for the local voice user. If login occurs and the above conditions are met, a class 22 (MMUI local voice user) or class 56 (VMUIF) local voice user SEER is issued to indicate the detection of mailbox origin.

When used in conjunction with the SEER Trigger Message option, the following urgent message is deposited in the appropriate mailbox. (See “SEER Trigger Message” on page 25 for more information.)

“This is a SEER message. A mailbox login has been detected from phone number <digits> to mailbox <digits>. Refer to SEER number <digits>.”

Thru-Dial Services

The administrator can choose to monitor all or specific thru-dials by setting the *Monitor all Thru-Dials during Monitoring Period* field in the Voice Security Options screen to the appropriate option. When thru-dials are attempted during the specified monitoring period, a class 106 SEER is issued to indicate the Calling DN and the destination of the thru-dial.

When used in conjunction with the SEER Trigger Message option, the following urgent message is deposited in the appropriate mailbox. (See “SEER Trigger Message” on page 25 for more information.)

“This is a SEER message. A thru-dial call has been detected from phone number <digits> to <digits>. Refer to SEER number <digits>.”

CLID Monitoring

The administrator can monitor mailbox logins or thru-dials from a specific CLID by setting the Monitor CLIDs during Monitoring Period field in the Voice Security Options screen to “Yes” or “Always Monitor”. The specified CLID is entered in the CLIDs to Monitor field in the Voice Security Options screen. If a match occurs during the specified period of time, a class 22, 56, or 106 SEER will be issued.

When CLID monitoring is combined with the SEER Trigger Message, an individual can be notified immediately by pager or by phone (through Remote Notification) when a suspected unauthorized user attempts a thru-dial or enters a particular mailbox.

A maximum of four numbers can be monitored for each of the five different CLID formats (that is, Local, Domestic, International, Network and ESN).

For AML systems, the administrator can specify the type of CLID (either internal or external), and a string of up to 15 digits. This provides the administrator with the flexibility to specify the complete CLID, area code only, or area and office code. Up to twelve CLIDs can be entered for each format.

For SMDI systems, the administrator can specify up to twelve CLIDs, of up to15 digits, to specify the complete CLID, area code only, or area and office code. Checking of the CLID will be done for all calls.

If a subset of a CLID is being monitored (such as the area code), this string of digits will only be compared to the beginning of the CLID, and not the number. Therefore, if an office code needs to be monitored, the area code must also be specified.

SEER ESCALATION

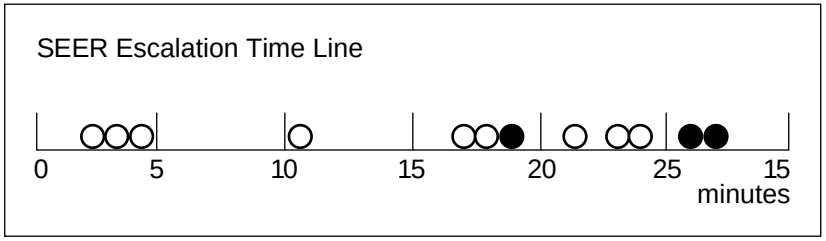
The administrator can escalate the severity level of frequently issued Minor and Major SEERs to the next level. If the same SEER is issued a specified number of times, during a specified period of time, the severity level of the SEER is escalated to the next highest severity level. This applies to Minor and Major SEERs only. Info SEERS cannot be escalated.

The number of occurrences of the SEER (escalation threshold count) and the period of time (escalation threshold interval) are set by the administrator on the “SEER Configuration” screen on the MMI.

Example:

The escalation threshold count is set to 3, and the escalation threshold interval is set to 10 minutes for this example. The occurrence of a Major SEER is represented by a circle. The black circles indicate occurrences of the Major SEER that will be escalated to a Critical severity level. The occurrence of the SEER at 11 minutes will not be escalated because the fourth occurrence of the SEER is outside the 10 minute interval; however, in the 10-20 minute range four

SEERs occur, causing the fourth SEER to be escalated to the Critical severity level.



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SEER Trigger Message

A Meridian Mail craftsperson or system administrator can be paged when a SEER generated by Meridian Mail meets filtering and throttling criteria used for the Message Trigger Mailbox.

The administrator can specify up to two mailbox numbers that will receive a message if a SEER meets the requirements to be sent to the SEER printer when filtered output is selected. SEER filtering can be bypassed by specifying “Yes” for the Mailbox notification field for the SEER in the SEER Remap Table. The message is tagged as urgent, and includes the SEER number, severity and type.

Remote notification can be configured for the mailbox to allow a support person to be notified immediately of the occurrence of the SEER by pager or phone.

SEER Printing

Handling

The SEER Server can be modified to turn SEER printing on or off to improve performance during periods of heavy activity. Each SEER requires 3 seconds to print, and during heavy SEER activity, some SEER information may be lost (that is, not stored in the SEER file on disk).

SEER printing will be turned off when 75% of the SEER Servers buffers are full, and turned on again when less than 50% are full.

During this period, the SEER Server maintains a count of the number of Critical, Major, Minor and Info SEERs that were not printed. When printing resumes, the server issues a SEER showing the numbers of SEERs that were not printed for each severity. The severity of this SEER is equal to the highest severity SEER issued during this period.

Chapter 2

Maintenance actions

How to use this section

The special maintenance action SEERS for use with this chapter have a line of information which regular SEERs do not have: the Act line. Occurring between the first SEER statistics line containing the SEER class and report and the description line, the Act line points to an entry in the “Primary maintenance actions” table. For more information on SEER format, refer to the Introduction to this document.

When a SEER with an Act line occurs you have a choice. Since SEER class and report number print just like any other SEER, you can treat this SEER like any other, and look up the report in the chapter belonging to the class. However, you can choose to go more directly to the solution.

Entries in the Primary maintenance actions table are of three types:

- Those with no further information. The entry consists of a straightforward action. Perform the action.
- Those with further information, but no reference to a checklist. Read the further information. Sometimes it provides more detailed instructions. In other instances, it gives background information to make it easier to interpret and complete the action on the Act line.
- Those with a reference to a checklist, with or without further information. Read the further information, if any. Go to the indicated checklist in the “Maintenance action checklists” section, and follow the steps in the checklist.

Applicability of this chapter

This chapter applies only to the following SEER classes:

- 11 Volume Server (VS)
- 14 MI Server and Interface (MI)
- 25 Application Module Link (AML)
- 59 Tape Driver (TP)
- 66 Disk Manager (DM)

Primary maintenance actions

Table 2-1
Primary maintenance actions

"SEER action text" Explanation and error recovery procedure
"Call your Nortel Networks support organization." Be prepared to supply the following information: • The hardware platform on which you are running. • The software release you are using, and any patches you have applied. • A concise description of the problem. • The SEER numbers and text of the messages that first appeared. • What steps you have taken to fix the problem. • The SEER numbers and text of the messages that appeared during your attempts to fix the problem
"Check for SEER(s) of the following class: *nn*" Check for a SEER report of class *nn* immediately prior to this SEER. Follow the instructions listed for that SEER report. If this does not solve the problem, check for the preceding SEER reports of class *nn* and follow their instructions.
"Check the validity of the client specified in the SEER"
"Check the validity of the file specified in the SEER"
"Close the file opened by the client specified in the SEER"
"Delete some unneeded files on the volume" If this report applies to a user volume, try deleting old message files.
"Disable, then reenable node noted in HWLOC"
"Ensure that the disk being used has valid data"
"Follow disk cleanup procedure"

Table 2-1
Primary maintenance actions (Continued)

“SEER action text” Explanation and error recovery procedure
“Follow documented NTP procedures when replacing disks”
“Move some users to another volume”
“No action is necessary” The message is for information only. No action is required.
“None. The system will/has recover” The system has just recovered from an unexpected operation. No action is required. If the system is generating these on more than a daily basis, call your support organization.
“Potential system overload. Expand the system.” A timeout has occurred and the system has recovered. No immediate action is needed. Review system engineering with your support organization if SEER is repeated.
“Reboot system” Courtesy down and reboot the system. Observe the bootup process for diagnostic results. If problems persist, call your Nortel Networks support organization.
“Refer to DM Basic checklist” The DM basic checklist is found in Table 2-6.
“Refer to DM Disk error checklist” The SEER description line is formatted as: `disk # > sense key: # error code: # [block: #]`. Use the sense key to select the correct procedure in the checklist. See the DM disk error checklist in table Table 2-7.
“Refer to DM Driver error checklist” See the DM driver error checklist in Table 2-8.

Table 2-1
Primary maintenance actions (Continued)

"SEER action text" Explanation and error recovery procedure
"Refer to DM Sync failure checklist" The SEER description line is formatted as: `Sync failed. RC = #` Use the return code (RC) to select the correct procedure in the checklist. See the DM disk error checklist in Table 2-7.
"Refer to Tape Error checklist" The SEER description line is formatted as: `Tape # > sense key: # [FM] [EOM].` Use the sense key to select the correct procedure in the checklist. See the Tape error checklist in Table 2-10.
"Refer to the following AML checklist items: *j, k, l, m*" The system is reporting a problem with the AML link. (The AML checklist contains the troubleshooting tree for all AML relate problems, including switch, switch hardware, switch datafill, cabling, MMail hardware and MMail datafill.) See the AML checklist in Table 2-2.
"Refer to the MI checklist" **Warning:** Do not back up over the previous backup since the information on the disk may be corrupt. See the MI checklist in Table 2-11.
"Refer to the Tasking Error checklist" See the Tasking error checklist in Table 2-17.
"Refer to the VS checklist 1" **Warning:** Do not back up over the previous backup since the information on the disk may be corrupted. See VS checklist 1 in Table 2-12.

Table 2-1
Primary maintenance actions (Continued)

"SEER action text" Explanation and error recovery procedure
"Refer to the VS checklist 2" **Warning:** Do not back up over the previous backup since the information on the disk may be corrupt. See VS checklist 2 in Table 2-13.
"Refer to the VS checklist 3" **Warning:** Do not back up over the previous backup since the information on the disk may be corrupt. See VS checklist 3 in Table 2-14.
"Refer to the VS checklist 4" **Warning:** Do not back up over the previous backup since the information on the disk may be corrupt. See VS checklist 4 in Table 2-15.
"Refer to the VS checklist 5" **Warning:** Do not back up over the previous backup since the information on the disk may be corrupt. See VS checklist 5 in Table 2-16.
"Replace the indicated SCSI drive" Replace the drive identified in the SEER report. Follow NTP documented procedures when replacing disk drives.
"Restore the node from backup tapes" Restore the volume on the node indicated by the SEER report from tape.
"Run a VS audit to clean up the specified volume" Run the VS audit. If this does not fix the problem, follow the maintenance actions for the SEER reports produced.

Table 2-1
Primary maintenance actions (Continued)

"SEER action text" Explanation and error recovery procedure
"Sync the shadowed disk"
"Terminate unneeded tasks or unload overlays to reclaim memory"
—end—

Maintenance action checklists

Table 2-6
DM basic checklist

The information for this checklist has been taken from the relevant *Installation and Maintenance Guide* (NTP 555-70x1-250).
1 Ensure the SCSI bus is securely connected to all SCSI devices and cards. 2 Ensure the SCSI bus is terminated at both ends, and that there are no intermediate terminating resistors. 3 Ensure the relevant power converters are properly installed and that the lights on their front panels remain solidly lit. 4 Perform a quick sanity check of the SCSI bus on all nodes: • Power on all hardware in the node. • On node 1, put a tape in the tape drive. As power is applied, the disk light should come on briefly and go off. It should not remain solidly lit. On node 1, the tape drive should make a series of clicking noises as it tries to load the tape.

Table 2-7
DM disk error checklist

The SEER description line is formatted as:

```
disk # > sense key: # error code: # [block: #].
```

Use the sense key number to select the correct procedure below.

Sense Key	Meaning	Action
1	Recovered error	If a large number of SEER reports occur with this sense code, replace the disk indicated.
2	Not ready	If this sense code occurs in normal operation, replace the disk indicated.
3	Medium error	Replace the disk indicated.
4	Hardware error	Replace the disk indicated.
5	Illegal request	Contact your Nortel Networks support organization.
6	Unit attention	If a large number of SEER reports occur with this sense code, follow the DM driver error checklist. See Table 2-8.
7	Write protected	Remove write protect jumper from disk.

If the action above does not correct the problem, follow the DM driver error checklist. See Table 2-8.

Table 2-8
DM driver error checklist

On all platforms

1 Follow the DM basic checklist. See table 2-2

2 If driver error 129 occurs, ensure that all disks are jumpered to the correct SCSI IDs. See the appropriate installation guide.

On MSM platforms

1 Follow the SCSI bus cable from one 68K transition module, to the disk drive pack, to the other transition module. See the appropriate installation guide.

2 Use a continuity tester to check that the fuses at positions F6 and F7 of the 68K transition module are not blown.

On EC platforms

1 Ensure that DIP switches SW1 - SW4 on the backplane are set correctly. See the appropriate installation guide.

On Modular Option and Modular Option GP platforms

1 If driver error 129 occurs and the backplane stiffener is not installed, install it.

2 If 5.25" drives are being used, and the voltage regulator at position U5 on the DC CEPS circuit board is an LMT340AT, replace the CEPS with one that has an L7805ACV regulator.

If a SCSI/RAM board is being used

1 If the message “bus 0 hang => bus reset” always appears when a node is being booted, replace the MMP40 card.

2 If driver errors appear during peak system loading, or if disk sync fails with a return code of 6713, replace the MMP40 card.

If the disk drive is a Seagate ST1480N

1 Remove the terminators. If the original problem disappears, the terminators that came with the drive are incorrect and should be replaced with 220/330 Ohm ones.

Table 2-9
DM sync failure checklist

The SEER description line is formatted as:

`Sync failed. RC = #.`

Use the return code (RC) number to select the correct procedure below.

RC #	Action
6700	If this RC occurs when syncing online, try the following: • unload unnecessary utilities • use a smaller transfer size
6710	Often has an associated 6605/6606 SEER. Follow the actions specified for these SEERs.
6711	Check that you can write to the destination disk: 1 From scsi_util enter • select *x* • copy *x x* 0 0 where *x* is the SCSI ID identified in the SEER 2 Check that the disk is jumpered correctly.
6712	Call ETAS.
6713	Often has an associated 6605/6606 SEER. Certain early vintages of 3.5-inch disks cause RC 6713 when synced with sufficiently large transfer sizes. Examples are DSP3105 Rls T370 and ST11200N Rls 8240, 8334 3 Check that the SCSI bus is correctly terminated. 4 Check that the disks are at least at the minimum vintage.

Table 2-10

Tape error checklist

The SEER description line is formatted as:

`Tape # > sense key: #` [FM] [EOM].

Use the sense key number to select the correct procedure below.

Sense Key	Meaning	Cause/Action
0	Unexpected FM	If “FM” appears in the SEER, an unexpected filemark has been encountered. This is most likely due to supplying the “$” argument to the tape server when the tape is actually non-bootable.
2	Not ready	Check that there is a cartridge in the tape drive and that the drive’s door latch is in the closed position.
3	Medium error	1. Clean tape drive head. 2. Retry operation. 3. Replace tape if problem persists.
4	Hardware error	1. Check the cartridge to see if the tape has snapped. 2. If not, replace tape drive.
6	Unit attention	This sense key comes up after cartridge insertion/removal or a SCSI bus reset. If you have not just inserted or removed a tape, look for termination/cabling problems. If none are found, contact Nortel.
7	Write protected	1. Turn the write protect tab away from the “SAFE” position. 2. Viper 2150 tape drives cannot write to DC300XLP cartridges.
8	Blank check	1. Replace tape and retry. 2. If problem persists, replace tape drive.

Table 2-11

MI checklist

Warning: Do not back up over the previous backup since the information on the disk may be corrupted.
For the following checklist, start at step 1 and proceed to the next step only if the current step does not fix the problem. Follow documented NTP procedures when replacing hardware.
1 Check for class 66 SEERs and follow the maintenance actions suggested there. 2 Run diagnostics on the problem node. In the case of non-classic systems, specify full memory test. 3 Replace SCSI cabling. 4 Replace the MMP40 or 68k card, as appropriate. 5 For “classic” systems, replace the SBC transition module.

Table 2-12
VS checklist 1

For the following checklist, start at step 1 and proceed to the next step only if the current step does not fix the problem. Follow documented NTP procedures when replacing hardware.	
1	Check for class 14 and 66 SEERs and follow the maintenance actions suggested there.
2	Check for any following SEERs with rc=1104. If there are any such SEERs then identify the mailboxes provided in these SEERs. If no mailbox is obtained then run an audit and identify the mailboxes from the audit SEERs.
3	If two or fewer mailboxes were flagged by the audit, or identified in SEERs, then delete these mailboxes and re-execute audit.
4	Restore from backup.

Table 2-13
VS checklist 2

For the following checklist, start at step 1 and proceed to the next step only if the current step does not fix the problem. Follow documented NTP procedures when replacing hardware.	
1	Obtain the volume ID from the SEER.
2	Go to volume admin on the MMI and check if the volume ID obtained exists in this list.
3	If the volume ID exists, go to the Node Status Screen on the MMI to verify and put all nodes InService. If all nodes are InService and the problem still exists, check for class 60 SEERs and follow the maintenance actions suggested there.
4	Check for class 14 and 66 SEERs and follow the maintenance actions suggested there.

Table 2-14
VS checklist 3

For the following checklist, start at step 1 and proceed to the next step only if the current step does not fix the problem. Follow documented NTP procedures when replacing hardware.	
1	Go to the node status screen of the MMI and verify that all nodes are InService. If a node is out of service, put it InService.
2	Check for class 14 and 66 SEERs and follow the maintenance actions suggested there.
3	FOR MSM & SPM systems: Follow the procedure documented in chapter 8, “Disks,” of the *Trouble Locating and Alarm-Clearing Procedures* NTP 557-7001-503. For non-MSM/SPM systems: Follow the procedure documented in the *Installation and Maintenance Guide* (NTP 555-70x1-250).
4	Run diagnostics on the problem node. In the case of non-SPM/MSM systems, specify full memory test.
5	Replace SCSI cabling.
6	Replace the MMP40 or 68k card, as appropriate.
7	For SPM and MSM systems, replace the SBC transition module.

Table 2-15
VS checklist 4

For the following checklist, start at step 1 and proceed to the next step only if the current step does not fix the problem. Follow documented NTP procedures when replacing hardware.	
1	Check for class 14 and 66 SEERs and follow the maintenance actions suggested there.
2	Run an audit on the system.

Table 2-16
VS checklist 5

For the following checklist, start at step 1 and proceed to the next step only if the current step does not fix the problem. Follow documented NTP procedures when replacing hardware.	
1	Follow VS checklist 3. See Table 2-14.
2	Restore the node from the backup tape.

Table 2-17
Tasking error checklist

A tasking error occurs when two tasks/programs have problems communicating with each other. Some typical causes of tasking errors are: -overload -not all nodes in the system are in service -a task/program crashes or dies -a software defect The system will self-recover from many of these. If possible, retry the operation that resulted in the error. If the problem persists, follow the steps below. Proceed to the next step only if the current step does not fix the problem. ***Note***: Some of the following steps assume the user knows which node the problem task is running on. If you do not know, proceed to the next step.	
1	Verify that all configured nodes on the system are InService, especially the node(s) involved in the error (that is, the nodes on which the originating and terminating tasks reside).
2	Disable and re-enable the node on which the originating task resides.
3	Disable and re-enable the node on which the terminating task resides.
4	If the system is not in use or is unusable, try rebooting the system.

Table 2-2
AML checklist

Depending on the nature of the problem, the maintenance action message pointing to the AML checklist specifies one or more AML checklist items to be followed. The SEER action line is formatted as: `"Refer to the following AML checklist items: j, k, l, m"` for example, "Refer to the following AML checklist items: 2,4" Perform the specified items in sequence. Proceed to the next item only if the current item does not fix the problem.		
1	***Check the physical connections of the AML link.***	
	a	Verify the cable is securely attached at both ends.
	b	Verify the wires are properly soldered or crimped to the cable connectors.
	c	Verify the link cable is less than 50 feet long, otherwise a modem is required.
	d	Bypass intra-cabinet cabling using a full 25-pin straight-through RS232 cable between the MMP40 or 68K card, AML port and the MSDL or ESDI port, to determine if the problem is related to intra-cabinet cables.
2	***Check the MSDL or ESDI card and related datafill on the Meridian 1.***	
	a	Check the name label of the ESDI card. Ensure the card is of vintage H or higher.
	b	Ensure the MSDL or ESDI card switches are set as per the appropriate Installation Procedures.
	c	Check the datafill of the MSDL or ESDI port for the AML link in the Configuration Record, for example, T1, T2, T3, K, port option. Data should be set as per the appropriate Installation Procedures. The port should be enabled.
	d	Ensure the Meridian 1 has the correct ROM cards and software options as per the appropriate Site and Installation Planning Guide.
	e	Verify that a sufficient number of call registers are configured to support the number of call registers assigned to AML messaging in the parameters CSQI and CSQO, as per the Meridian 1 NTPs.
	f	Verify that the Configuration Record and the Meridian Mail ACD queue have the same VASID for the MSDL or ESDI port used for the AML link.
	g	If numerous Input/Output (SDI) ports are used on the Meridian 1, ensure that the CDR port is operating at the recommended baud rate. Refer to the Meridian 1 NTPs for proper engineering.

Table 2-2
AML checklist (Continued)

	h Run a self-test of the MSDL or ESDI card, and replace the card if it fails. If the card tests “OK”, disable the card. For Release 17, use the ACMS command to enable the link.
3	***Verify that the system was properly administered***
	a Ensure the system (Meridian 1 and Meridian Mail) power and grounding comply with the NTPs. Ground loops can contribute to intermittent problems.
	b Ensure the Meridian 1 is initialized whenever changing values for call registers or assigning a new network loop for Meridian Mail.
	c Program Meridian 1 traffic to capture TFS008 reports. Examine reports for End-of-block errors. If errors are reported, replace the ESDI card with one of H vintage or higher.
4	***If the system is not running the latest release of software, verify that the required patches, if any, are installed on the Meridian 1 and Meridian Mail.***
5	***Check the datafill on Meridian Mail:***
	For report 2502 - Check the Channel Allocation Table and correct the channel DN as required.
	For report 2522 - Verify that the Notification DN has been defined correctly for the user. Also check the RC on the SEER to determine the reason for failure: 1 = Failure/error on D channel between NMS locations 2 = Invalid DN 3 = Remote switch not NMS
	For other reports - Call Nortel Networks support to verify the hardware database is set up properly, for example, the voice ports are set up correctly as per the appropriate System Installation and Modification Guide.
6	***Reboot the system and run diagnostics on the memory cards. If the problem persists, refer to the appropriate Maintenance Guide for card replacement procedures.***

Table 2-2
AML checklist (Continued)

7	***Set the time of day on the Meridian 1 using Overlay 2.***

Chapter 3

SNMP for Meridian Mail

What is SNMP for Meridian Mail?

The System Event and Error Reports (SEERs), generated by the Meridian Mail system software components, identify every significant system event and error that occurs.

In Meridian Mail 13 this functionality is expanded to include the SEER notification via the Simple Network Management Protocol (SNMP).

When this feature is enabled, a SEER trigger will cause an unsolicited message (an SNMP trap) to be broadcast to all SNMP Managers that have been set up to receive the trap.

The SNMP Managers display the trap message to alert the system administrators of the SEER notification The trap message will contain the complete SEER that includes the SEER number, SEER description and its severity that is one of the following: critical, major, minor and info.

The user benefits of this feature are:

1. The feature provides prompt notification of system problems to system administrators. Its notification contains the complete SEER text that is different from the SEER messages deposited into the Message Trigger Mailboxes.
2. Some user have Message Trigger Mailboxes set up but they do not have the outcalling feature installed. The SNMP notification is used as a remote notification mechanism for SEER alarms.
3. Currently, together with remote notification, a SEER trigger is used to notify 2 mailboxes and up to 6 remote notification (RN) devices.
   This means that only up to 6 users can be notified. The SNMP notification can be broadcast to a larger number of users.

- A local area network or a wide area network is optional.

Volume Server (VS)

Introduction

A volume is a subdivision of a disk consisting of two “sub-volumes”; one for text, one for voice data. A volume is identified by an integer. Each volume has its own volume server which:

- allows access to the volume by application programs (“clients”)
- controls concurrent access to files on the volume
- manages a list of free disk blocks for the volume
- keeps track of the amount of space used by each user
- performs garbage collection to remove expired messages

Each volume server runs an audit every night to recover any disk blocks lost during the day. Normally blocks are lost only due to program restarts or other error conditions. SEERs mark the beginning and end of the audit. These are normal.

Most VS SEERs represent normal events such as audits or minor errors affecting single user operations. Serious errors can indicate either that the volume server is not running properly or that the volume has been corrupted in some way—any or all accesses to the volume may fail. In the case of a user volume, this denies access to all mailboxes on that volume. In the case of the system volume (VS1), the entire system may become non-operational.

A class 11 SEER may contain:

- name of the volume server (for example, VS2)
- path of the problem file (that is, /volume/cabinet/file)
- lower level return code
- explanatory text
- hex data

Reports

1101 Minor Error Action 1

Cause: One of the following tasking errors can occur resulting in failed inter-task communication. If the text says:

1. "VSn:tasking error in VSProcs i", a client trying to communicate with volume server n encountered task error i. This may indicate that a volume server is not running, resulting in denial of service to some or all users. Normally a volume server will be restarted automatically.
2. "VSn:buffer problem sending to OFS 21", VSn could not inform an OFS of an update to a cached file due to inadequate buffers on the OFS. Clients may not see the update.
3. "VSn:send to update of OFS failed i", VSn could not inform an OFS of an update to a cached file due to taskresult. Clients may not see the update.

Impact: Depends on cause, see above.

1103 Major/Critical Admin Action 2

Cause: The volume is almost full.

1. The text volume is almost full. It has reached 90 - 95% (Major) or more than 95% (Critical) of its capacity.
2. The voice volume is almost full. It has reached 90% or more (Major) of its capacity.

Impact: Potential problem soon with increasing file sizes or adding files to the volume.

1104 Minor Error Action 3

Cause: A bad blockID has been passed to the VS. If the text says:

1. "VSn: vs_ReadBlock Bad BlockID", a client attempted to read an invalid block on volume n. May be a problem with the task issuing the SEER.
2. "VSn: Vs_WriteBlock Bad BlockID", a client attempted to write an invalid block on volume n. May be a problem with the task issuing the SEER.
3. "VSn:GiveBlk invalid block", then the VS noticed an invalid blockID when trying to free up a block.

Impact: May indicate a corrupted file. If so, subsequent accesses to that file may also fail. Impact to users depends what file it is.

1105 Major Error Action 4

Cause: The VS for a certain volume was not found. This could be because the VS is not running, or a FID has a bad volume ID or volume ID = 0.

Impact: The operation attempted by the user will fail until the problem is fixed.

1106 Info/Debug Action 5

Cause: Two clients tried to update the same file at the same time.

Impact: The second client will not be able to update the file until the first client is finished.

1107 Minor Error Action 6

Cause: The volume server has opened the maximum number of files for its volume.

Impact: No more files can be opened until some are closed.

1108 Minor Error Action 7

Cause: The defer queue has reached its maximum value for the volume.

Impact: Effect should be transient, some operations will fail until some files are closed.

1109 Minor Error Action 8

Cause: The maximum Read copy file open limit has been reached for the volume.

Impact: Usually transient. The operation fails but the error should stop occurring after some files are closed.

1110 Minor Error Action 9

Cause: A client had a file open in quick-read-write mode too long and VS closed the file.

Impact: The client will have to reopen the file.

1111 Minor Error Action 10

Cause: A client passed an invalid FID to the volume server or tried to access a file which was closed by the VS.

Impact: The client will have to reopen the file. Usually minor impact affecting only one client.

1112 Minor Error Action 11

Cause: A client tried to open a file using a NIL taskID.

Impact: Operation fails.

1113 Minor Error Action 11

Cause: A client tried an invalid or non-existent function.

Impact: The operation fails.

1115 Minor Error Action 12

Cause: A client frees up a block that the VS thinks is not in use.

Impact: May indicate corruption on a volume.

1116 Minor Error Action 13

Cause: Corrupted block buffer.

Impact: May indicate a problem with application software but not volume corruption.

1117 Minor Error Action 14

Cause: Bad media type.

Impact: May indicate a problem with application software but not volume corruption.

1118 Minor Error Action 15

Cause: Volume server limit for block records (BRs) exceeded.

Impact: The volume server closes the file. Subsequent accesses may result in SEER 1111. The operation in progress fails.

1119 Minor Error Action 11

Cause: Client attempted to write a block to the OFS.

Impact: The operation fails.

1121 Critical Error Action 16

Cause: The disk could not be accessed. The VS can't rendezvous with the mi_server. The mi_server may be down.

Impact: All operations requiring access to that disk will fail.

1122 Minor Error Action 17

Cause: Bad parameters passed to VS by a client.

Impact: Operation fails.

1123 Minor Error Action 18

Cause: Volume server detected termination of an open file server (OFS).

Impact: Access may be slower for files which are normally cached.

1124 Critical Error Action 19

Cause: Insufficient memory for volume server to perform operation.

Impact: If it occurs on start-up, no accesses to that volume will work. Otherwise either an online backup or audit may fail. Chronic audit failure can result in loss of disk space and a volume full condition.

1126 Minor Error Action 20

Cause: The volume server found a discrepancy between its volume name and the volume name stored on disk. Can be caused by renaming a volume or restoring one to a different name.

Impact: The volume server cannot start and the volume cannot be accessed.

1127 Minor Error Action 21

Cause: A client passed a bad key to the volume server.

Impact: The client's activity will fail.

1128 Minor Error Action 22

Cause: Volume server has reached limit of quick-read-write files.

Impact: Usually a transient error resulting in some failed operations until files are closed.

1129 Minor Error Action 23

Cause: Volume server complains of a control conflict when asked to perform two mutually exclusive tasks. Can be caused by trying to perform an online backup during an audit or volume compress operation.

Impact: Cannot perform second operation until first one is complete.

1130 Critical Error Action 24

Cause: A disk error occurred reading or writing a block.

Impact: May indicate transient or serious disk problems.

1131 Critical Error Action 25

Cause:Volume server could not write some of its system data.

Impact: Space may be lost on the volume.

1132 Info System Action 26

Cause: A nightly volume server audit is being run. Depending on the text of the SEER, this may be perfectly normal or may indicate minor or major system problems. The following SEERs are normal; if the text says:

1. "VSn:Starting Audit", a normal audit has begun.
2. "VSn:Finished Audit: # blocks recovered = n", a normal audit has completed and n blocks have been recovered.
3. "VSn:Starting Garbage Demon dd/mm/yy hh:mm:ss", a normal garbage demon has started removing files which were obsolete as of the specified time.
4. "VSn:Garbage Demon Finished-files deleted=m", the garbage demon completed. The number of files it removed is m.
5. "VSn:Starting Shadow Disk Audit...", the shadow disk audit has started.
6. "VSn:Finished Audit: # blocks mismatched=x", the shadow disk audit has finished. If *x* is non-zero, this indicates that the shadow disks are not in sync.

Other SEERs are abnormal and indicate problems encountered during either the audit, garbage demon, or on-line backup. The auditor accesses every file on the volume so it will tend to catch any file corruptions.

Impact: Cases 1-5: None

Case 6: Different data may be read from the shadow disks causing file inconsistency.

1133 Critical Error Action 27

Cause: The volume server has discovered a damaged bit map.

Impact: Up to 8192 free blocks may be lost.

1134 Critical Error Action 28

Cause: The volume server has failed to start due to an error given as the return code.

Impact: No access to the volume.

1135 Major/Minor Error Action 29

Cause: One of several internal failures in the volume server. If the text says:

1. “VSn:Audit bit map error (text) m” or “VSn:Audit bit map error (voice) m”, the auditor is correcting an error in the volume block allocation bit maps. This error can occur normally in some rare circumstances when files are being deleted during an audit. If it occurs often, it may indicate a more serious consistency problem, contact your Nortel Networks support organization. The block number is given as m.
2. That a task crashed, an internal task has terminated abnormally for reasons given in the SEER. The task will be restarted automatically.

Impact: Normally no impact, but may indicate serious problems.

1136 Minor Error Action 30

Cause: A user is trying to exceed their space allocation.

Impact: The user will not be able to add files.

1137 Minor Error Action 31

Cause: The Volume Server is being told to bill space to a user which it does not know about. If a system reboots or a volume server restarts, and new users had been added that day, this error may result if those users attempt to access their mailboxes.

Impact: New users may not be able to use the system until the next day.

1138 Minor Error Action 32

Cause: An error occurred writing some of the space records and some data was lost. The return code indicates cause of the error.

Impact: The audit failed to write some user's space records to disk. Those users may be unable to compose messages.

1139 Minor Error Action 33

Cause: The volume server has reached the limit for number of users.

Impact: No more users can be added to the volume.

1141 Minor Error Action 34

Cause: A volume compress operation is being run to reduce the size of a volume. This is normally done only during installation, conversion or expansion. If the text is "starting compression", the next volume size in blocks will be given. This value will be negative if a text volume is being compressed. Depending on the text of the SEER there may or may not be a problem. The return code may give more information about any errors.

Impact: If the SEER indicates failure to compress, the volume has not been compressed.

1142 Minor Error Action 35

Cause: The temporary volume ran out of space during an on-line backup due to too much activity on the volume during the backup or due to the backup taking too long (for example, it stopped while waiting for a new tape to be put in).

Impact: The online backup fails.

1143 Minor Error Action 36

Cause: vs_e Lock timeout. Server table locked too long by client s/w.

Impact: No further volume table updates on that processor. No user input.

1145 Minor Error Action 37

Cause: Too many open file servers registered with VS.

Impact: OFS caching partially disabled, possible performance impact.

1146 Minor Error Action 38

Cause: Audit failed

Impact: Problems resulting in "audit failure" mean that lost blocks are not recovered. Since blocks are usually lost only due to abnormal system conditions, the impact may be minimal unless the audit fails every time. Consistent audit failure will lead to the volume full condition (see SEER 03) due to lost blocks. Problems resulting in garbage demon failure

mean that some or all of the obsolete messages may not have been deleted from users' cabinets. In time, this too can lead to a full volume. Other problems encountered during an audit do not prevent the audit from recovering lost blocks, but may indicate problems with particular system files or users' cabinets.

1147 Info/Debug Action 39

Cause: Task which had a file open died without closing the file.

Impact None. VS cleans up.

1148 Minor Error Action 40

Cause: Error during online backup. Depending on the text of the SEER, this may be perfectly normal or may indicate minor or major system problems. Look up error code to determine reason for failure.

1. Volume server audit has aborted the online backup
2. Volume server audit has been delayed by 30 minutes in order for the online backup to complete

Impact: Backup may fail

1149 Info Admin No Action

Cause: Normal Backup. If "VSn:starting online backup" then an online backup operation has started. If "VSn: Online backup done, #orgasm" then an online backup operation is complete. If m is greater than 900, consider doing the backup at a quieter time.

Impact: None

1150 Info Debug Action 41

Cause: A client task still has an obsolete version of a file open even though the file has been updated.

Impact: Normally none. It can result in SEER 1118 problems if it persists.

1151 Minor Error Action 42

Cause: VS had error invoking open files server.

Impact: Some tasks may not see new data.

1155 Minor Error Action 17

Cause: The VS Auditor could not send Message Trace specific information to OM.

Impact: In Session Trace, the VS Audit record will not be seen.

Actions

Action 1: Case 1. If the volume server does not restart automatically, contact your Nortel Networks support organization.

Cases 2-3. Redo the update. If it reoccurs, contact your Nortel Networks support organization.

Action 2: Check that the nightly audit is functioning. Remove files on the volume in question. If the operation involved VS1, remove directory entries or OM files. The effect of corrective actions may be delayed until the night-audit is run, or you may choose to run the audit manually. All volumes tool in the *Administration Tools* (NTP 555-7001-305) may be used to free-up any deleted messages. Consider redistribution of users on multi-node systems, turning on automatic message deletion, or buying a storage upgrade.

Action 3: Look at previous SEERs to try to identify reason for corruption or identify the offending client program. If possible, remove the bad file. The problem could be the result of a hardware problem. Run hardware diagnostics. If the error persists, contact your Nortel Networks support organization.

Action 4: Ensure that the system is fully operational and all nodes are running. Look at locale number and remote TaskID parts of SEER to identify offending client program. If the problem persists, contact your Nortel Networks support organization.

Action 5: Try the operation later. If the problem persists, disable and reenable the nodes mentioned in the SEER.

Action 6: Problem is likely to be transient. If it persists, it may be cleared by disabling and reenabling the node on which the volume server is running.

Action 7: Reduce the maximum message length in the MMI through the Voice System Administration/Options menu screens.

Action 8: There may be too many users. For multi-node systems, ensure the users are distributed evenly on each node. If the problem persists, contact your Nortel Networks support organization.

Action 9: May indicate an overloaded system or an excessively big cabinet. If the error persists, contact your Nortel Networks support organization.

Action 10: Look for previous SEERs indicating files closed by the sweeper or due to quick-read-write timeouts. Investigate those SEERs. If the problem persists, contact your Nortel Networks support organization.

Action 11: Collect all SEERs and contact your Nortel Networks support organization.

Action 12: Collect all SEERs and contact your Nortel Networks support organization.

Action 13: Disable and reenable the node mentioned in this SEER. If problem persists, contact your Nortel Networks support organization.

Action 14: Disable and reenable the node mentioned in this SEER. If problem persists, contact your Nortel Networks support organization.

Action 15: May be transient problem. If it persists, contact your Nortel Networks support organization.

Action 16: The return code is an MI_SERVER diagnostic code. Look it up in the Appendix. Possible hardware problem with the disk subsystem. Run disk diagnostic.

Action 17: Contact your Nortel Networks support organization.

Action 18: Look for SEERs giving reason for OFS termination. Disable and reenable the node on which the OFS was running.

Action 19: If the administrator is using network, hardware, or voice service administration, free memory by exiting these menus. Ensure that no tools or utilities are in use. The condition can be cleared by disabling and re-enabling the node. Memory can also be freed by disabling DSP ports on that node. If the problem persists, contact your Nortel Networks support organization.

Action 20: Contact your Nortel Networks support organization.

Action 21: Look for preceding SEERs indicating files closed. Collect SEERs and contact your Nortel Networks support organization if the error persists.

Action 22: If the error persists, contact your Nortel Networks support organization.

Action 23: Wait until volume server is in correct state for the operation. If the problem was due to a scheduled backup, change the schedule time so that it does not coincide with the nightly audit. If the volume server appears to be stuck in a bad state, disable and reenable the node where the volume server is running.

Action 24: Look up the MI_SERVER error code in the Appendix. If this error occurs consistently on a user volume, consider moving users to a disk which is less heavily used. If the problem persists contact your Nortel Networks support organization. Other error codes may indicate hardware problems with the disk subsystem. Run disk diagnostics.

Action 25: Wait for nightly audit, or try deleting files on the volume. If the problem persists, contact your Nortel Networks support organization.

Action 26: Cases 1 to 5: None

Case 6: Disable the shadow disk feature on the node the VS is running on, and then run a regular VS audit to check for file integrity. Any error reported during the audit may indicate file corruption. It may be necessary to restore the volume from backup.

Action 27: Look up the return code in the Appendix. Check that the nightly audit recovers space without error by viewing the overnight SEER messages.

Action 28: Look up the return code in the Appendix. If the problem persists contact your Nortel Networks support organization.

Action 29: If problem persists, collect SEERs and contact your Nortel Networks support organization.

Action 30: Ask the user to delete files or give the user more space.

Action 31: Ensure the audit runs correctly that night. This will cause the new users to be recognized by the VS. Alternatively, delete and re-add the users.

Action 32: Look up the return code in the Appendix.

Action 33: Redistribute users to other volumes. If all volumes are full, consider expanding system.

Action 34: Investigate the return code if one is given. If the text says “Specified size to compress into too small!” then delete some files and retry the operation.

Action 35: Perform the backup when the system is less busy. Do not leave the system waiting for a new tape for long periods.

Action 36: Disable and re-enable node.

Action 37: Contact your Nortel Networks support organization.

Action 38: Periodically check the SEERs to ensure that all nightly audits are completing successfully. If a SEER includes a file name, the problem can often be fixed by removing the indicated file or cabinet. In particular, if the file name refers to a userID (for example, “/2/users/Smit2345”) try removing files in the user’s cabinet or deleting and re-adding the user (in this example the user at box 2345). If problems persist, contact your Nortel Networks support organization.

Action 39: If problems occurs too frequently, contact your Nortel Networks support organization.

Action 40: Case 1. Retry backup.

Case 2 None.

Action 41: If problem persists, contact your Nortel Networks support organization.

Action 42: Disable and reenable node defined in the SEER.

Cabinet Access Method (CM)

Introduction

A cabinet stores system files and user files (voice messages). A user's personal cabinet is often called a "mailbox". The Cabinet Access Method is a set of routines that

- Stores, retrieves, and updates files and related information in cabinets
- Maintains and retrieves counters for different types of files
- Performs buffered operations on a cabinet

Cabinet errors can cause

- A service to become unusable (such as Express Messaging) if a system cabinet is affected (for example, the corporate directory)
- Messages to go undelivered, if an MTA cabinet is affected
- A mailbox to become inaccessible, if a user's personal cabinet is affected
- Volume server audit errors to occur

A Class 12 SEER contains

- Cabinet File ID
- Record ID

Reports

1250 Minor Error Action 1

Cause: A cabinet may be corrupt. For example, part of the cabinet may be missing.

Impact: The cabinet cannot be accessed.

1251 Minor Error Action 2

Cause: Attempt to access a cabinet with an incompatible version of software. The software version is shown in the SEER.

Impact: No cabinets are accessible making the system unusable.

1280 Minor Error Action 3

Cause: A bad parameter was passed to a CM function. This can result from a previous file system error.

Impact: The operation fails.

1282 Info/Debug Action 4

Cause: A minor failure has occurred while attempting a CM operation. The return code and text give the underlying cause. This usually results from cleaning up after some previous failure, for example, trying to delete a file which is no longer there.

Impact: In most cases there is no impact except a few lost blocks which should be recovered by the nightly VS audit.

Actions

Action 1: Attempt to determine which cabinet is corrupted. If it is a user's cabinet, delete and re-add the user. If the error persists, collect SEERs and contact your Nortel Networks support organization.

Action 2: Ensure that the system is correctly installed or converted. Contact your Nortel Networks support organization.

Action 3: Investigate any errors preceding this one. If the error persists, collect SEER information and contact your Nortel Networks support organization.

Action 4: If the error persists, collect the SEER information and contact your Nortel Networks support organization.

Open File Server (OFS)

Introduction

An Open File Server program runs on each node of the system. It manages an area of memory called a “cache” which is used to hold blocks of frequently read disk files in order to speed up access to these files by reducing the number of disk reads needed. On multi-node systems, the OFS also manages an area on the locally attached disk. This area is used to reduce the number of times data has to be obtained from other nodes. Both voice and text blocks can be cached. OFS errors can cause slow response from Voice Messaging and increased load on the MI_SERVER.

A Class 13 SEER may contain a lower level return code.

Reports

1303 Minor Error Action 1

Cause: A tasking error occurred when the OFS tried to register with a Volume Server. The tasking error is given in the SEER.

Impact: Usually negligible. The OFS in question will not cache files from the VS in question. This may result in a minor performance slowdown.

1304 Minor Error Action 2

Cause: An error occurred when the OFS tried to register with a volume server. The error code is given in the SEER.

Impact: Usually negligible. The OFS in question will not cache files from the VS in question. This may result in a minor performance slowdown

1305 Minor Error Action 3

Cause: The Open File Server could not load files in its control file. This usually means:

1. The volume server, related to the files, is down.
2. The control file has errors.

Impact: The file will not be cached. Some prompts may be inaccessible

1306 Minor Error Action 4

Cause: The size of a shared memory file has changed in the interval between segment allocation and reading of the file.

Impact: The file will not be cached.

1309 Minor Error Action 5

Cause: A tasking error occurred when pushing data to client program. It can be caused if a client program fails while sending data from OFS.

Impact: User operation fails.

1310 Minor Error Action 6

Cause: Open File Server had the start-up error specified by the error code in the SEER.

Impact: The OFS will not start. Voice messaging will not work on that node.

Actions

Action 1: Disable and reenable the node running the OFS.

Action 2: Look up the error code given in the SEER. Disable and reenable the node running the VS.

Action 3: Contact your Nortel Networks support organization.

Action 4: Disable and reenable the node.

Action 5: Look up task result given in SEER. If the problem persists, collect SEERs and contact your Nortel Networks support organization.

Action 6: Look up error code. Contact your Nortel Networks support organization.

MI Server and Interface (MI)

Introduction

The MI layer is a virtual disk handler. All disk requests pass through the MI layer. There is one mi_server on each node. Disk requests on the local node just pass through the MI interface, while disk requests for remote nodes pass through the mi_server on the remote node. Each disk (or pair of disks if they are shadowed) has a unique name; the name starts with 'FAST' and since there is only one disk associated with each node, nodes greater than node 1 have the node number appended to the FAST. For example, the disk on node 5 would have the name FAST5.

Class 14 errors occur when data cannot be read from, or written to, the disk. The severity of the error depends on what part of the disk is affected. In some extreme situations the system will not boot-up if the programs cannot be read from disk. Less severe problems would only affect a single user, or possibly a single message. The actual disk error is reported by the disk driver software. If a disk is reported faulty it should be replaced.

Reports

1420 Minor Error Action 1

Cause: The mi_procs has a problem invoking mi_ server entries, or the mi_ server failed to perform the requested operation.

Impact: The MI operation will fail.

1430 Minor Error Action 2

Cause: The mi_procs could not rendezvous with the mi_server.

Impact: A client could not read a block from disk, or write a block to disk. An associated SEER indicates the service that was affected.

1434 Minor Error Action 3

Cause: The mi_procs could not rendezvous with the mi_server.

Impact: The control operation to the mi_server could not be executed. An associated SEER indicates the service that was affected.

1440 Critical Error Action 4

Cause: The mi_procs in the Monitor could not allocate, or find the shared memory segment ‘MIVSSEG’.

Impact: The system will not operate if it cannot allocate this memory.

1442 Critical Error Action 4

Cause: The mi_server in the OSP could not allocate memory for buffering.

Impact: The system will not operate if it cannot allocate this memory.

1457 Minor Error Action 5

Cause: The mi_server could not send data which was read from the disk to the client. This means that the disk was successfully read, but the data could not be transferred to the client, usually on a remote node.

Impact: The client did not receive data from disk.

1458 Minor Error Action 6

Cause: The mi_server could not receive data from a client that was supposed to be written to the disk. This means that no attempt was even made to write to the disk.

Impact: The data from the client was not written to disk.

1465 Critical Error Action 7

Cause: The mi_server failed its sanity test.

Impact: All disk access for that node will fail.

1467 Minor Debug Action 8

Cause: An unknown disk error has occurred.

Impact: The MI control request will fail.

1469 Minor Debug Action 9

Cause: An attempt was made to reallocate memory which has already been allocated.

Impact: No impact.

1471 Info Debug Action 10

Cause: An mi_server defer queue was allocated and has timed out.

Impact: No impact.

1472 Minor Error Action 11

Cause: The internal MI table has been corrupted. The MI will try to reinitialize the table. If the reinitialization fails, a 1465 sanity SEER will be printed.

Impact: All disk access for that node is unreliable.

1475 Minor Debug/Error Action 12

Cause: The mi_server could not send the control block which was read from the disk to the client.

Impact: This means that the disk was successfully read, but the data could not be transferred to the client. This SEER only occurs when changes are made to the virtual volumes on disk, and is associated with a backup to tape, or during the installation of a system. If only the debug level SEER is printed, the read operation succeeded on retry; otherwise, the read failed.

1476 Minor Error Action 13

Cause: The mi_server could not receive the control block from a client that was supposed to be written to the disk.

Impact: This means that no attempt was even made to write to the disk, and indicates a possible problem with the bus interconnecting the nodes, the sanity of the remote node, or the client on the remote node. This SEER only occurs when changes are made to the virtual volumes on disk, and is associated with a backup to tape, or during the installation of a system.

1477 Minor Error Action 14

Cause: A tasking error occurred while trying to read or write the mi control block to disk. The control block contains the list of virtual volumes defined on the disk.

Impact: This SEER only occurs when changes are made to the virtual volumes on disk, and is be associated with a backup to tape, or during the installation of a system. It usually indicates a disk, or disk driver hardware problem. Another SEER with a return code of 1477 will indicate the actual operation that failed.

1478 Minor Error Action 15

Cause: A tasking error occurred while trying to do a direct-read from disk. A direct-read occurs when the operation does not rendezvous with the mi_server.

Impact: The client did not receive data from disk. An associated SEER indicates the service that was affected.

1479 Minor Error Action 16

Cause: A tasking error occurred while trying to do a direct-write to disk. A direct-write occurs when the operation does not rendezvous with the mi_server. It usually indicates a disk, or disk driver hardware problem

Impact: The client did not write data to disk. An associated SEER indicates the service that was affected.

1480 Minor Error Action 17

Cause: There was an error in processing the mi internal volume tables in RAM. These volume tables are read from the mi control block on the disk, and saved in RAM.

Impact: The system will not operate correctly.

1488 Info Error Action 4

Cause: The mi_tools cannot allocate memory for the requested control function.

Impact: The mi control request will fail.

1489 Info Debug Action 18

Cause: Bad data was supplied to the mi_server. This occurs normally when a single node is rebooted and the other nodes are active.

Impact: The mi_server ignores the data.

Actions

Action 1 The SEER contains the tasking result or error code. Check the tasking result/error code against the SEER manual for more information.

Action 2 The return code is a task result which indicates the reason why the rendezvous failed. If an invalid task ID is returned then the most likely error is that the remote node has failed. Check for SEERs indicating the failure of a node.

Action 3 The return code is a task result which indicates the cause of the problem. If an invalid task ID is returned then the most likely error is that the remote node has failed. Check for SEERs indicating the failure of a node. This problem only occurs when creating or deleting a volume, which is normally only during a backup.

Action 4 Repair the hardware.

Action 5 Try to match this SEER code (1457) with another SEER that reports the 1457 as a return code. If the remote node is alive and receives the error, then the client will report the error, with the 1457 as part of its SEER. The severity of the problem will be based on the severity of the operation of the client.

If no matching SEER can be found, there could be a bus interconnection problem, or a problem with the remote node. Check for SEERs that indicate a failure of the client or the node. Contact your Nortel Networks support organization.

Action 6 Try to match this SEER code (1458) with another SEER that reports the 1458 as a return code. If the remote node is alive and receives the error, then the client will report the error, with the 1458 as part of its SEER. The severity of the problem will be based on the severity of the operation of the client.

If no matching SEER can be found, there could be a bus interconnection problem, or a problem with the remote node. Check for SEERs that indicate a failure of the client or the node. Contact your Nortel Networks support organization.

Action 7 Determine the cause of the sanity failure from the associated SEERs. This is usually caused by bad hardware, the most likely being the CPU or memory.

Action 8 Check for a disk problem.

Action 9 This SEER is for information only. This SEER is expected after an mi_server is restarted, as the mi_server allocates the memory when the system boots up. During normal operation, this SEER should not occur. If the problem persists, contact your Nortel Networks support organization.

Action 10 This SEER is for information only. An allocated defer queue is released if it has been allocated for a specified time. This is a recovery mechanism in the event that the SCSI driver does not return with a disk operation. It could indicate a possible problem with the disk or SCSI hardware. In that case, contact your Nortel Networks support organization.

Action 11 Try to reinitialize the disk. (*Warning:* All previous data stored on the disk will be lost.) If the problem persists, contact your Nortel Networks support organization.

Action 12 Try to match this SEER code (1475) with another SEER that reports the 1475 as a return code. If the remote node is alive and receives the error, then the client will report the error, with the 1475 as part of its SEER. The severity of the problem will be based on the severity of the operation of the client.

The SEER contains the task result, and a hex dump of the remote pointer. Usually the task result will be adequate to determine why the push failed.

If no matching SEER can be found, there could be a bus interconnection problem, or a problem with the remote node. Check for SEERs that indicate a failure of the client or the node. If the problem persists, contact your Nortel Networks support organization.

Action 13 Try to match this SEER code (1476) with another SEER that reports the 1476 as a return code. If the remote node is alive and receives the error, then the client will report the error, with the 1476 as part of its SEER. The severity of the problem will be based on the severity of the operation of the client.

The SEER contains the task result, and a hex dump of the remote pointer. Usually the task result will be adequate to determine why the pull failed.

If no matching SEER can be found, there could be a bus interconnection problem, or a problem with the remote node. Check for SEERs that indicate a failure of the client or the node. If the problem persists, contact your Nortel Networks support organization.

Action 14 If the error occurred during backup then try the backup again. The return code of the SEER contains the task result which indicates why the disk operation failed.

Action 15 The return code of the SEER contains the Task Result which indicates why the disk operation failed. If the problem persists, run disk diagnostic.

Action 16 The return code of the SEER contains the task result which indicates why the disk operation failed. If the problem persists, run the disk diagnostic.

Action 17 The return code which the SEER contains indicates the cause of the problem. The most probable error would be an error reading the control block, which normally indicates a disk drive or SCSI hardware failure. After this error, the system will not operate correctly, and will have to be repaired. Contact your Nortel Networks support organization.

Action 18 This can be ignored if it occurs occasionally during the warm boot of a node. However, if it occurs during normal operation, there could be a possible memory or inter node bus communication problem. Contact your Nortel Networks support organization.

Backup and Restore Program (BURP)

Introduction

The Backup software backs up system and user data automatically at a time set by the System Administrator, or whenever it is invoked by a user. For single-node systems backup must be done to tape; on multi-node systems, if the disk-to-disk backup feature is enabled, backups may additionally be done to disks.

Usually, Backup errors have no or little impact on system operation. But the backup must be tried again. If the backup fails again, then the problem should be investigated and solved immediately. Backing up data periodically is strongly recommended.

If a disk drive fails and a backup exists, the contents of the disk drive can be restored from the backup. Errors encountered by the Restore software may make it impossible to recover the data from the backup.

Problems that persist after the recommended actions have been taken may indicate a hardware problem. In this case contact your support organization.

The Backup and Restore Program (BURP) is a utility providing commands to do backup and restore operations. Normally, however, backup operations would be done from the volume administration screen of the MMI. Restore operations would be done off-line, booting from the install tape.

Although selective backup and restore are integrated with volume backup, they are reported through a separate SEER class. See SEER class 76.

A Class 15 SEER generally contains a lower level return code. Refer to Appendix A for the SCSI device sense key and error codes.

Note: Error codes for the 7600 range are documented in Class 76 SEERs.

Reports

1501 Minor Error Action 1

Cause: The tape successfully recovered from an error. This is an error report of the recovery. Under normal operation this error condition should not occur. It would indicate media or hardware problems.

Impact: The tape operation failed.

1502 Minor Error Action 2

Cause: The tape drive can not be accessed or the tape cartridge is not inserted correctly.

Impact: The tape operation failed.

1503 Minor Error Action 1

Cause: There was a flaw in the tape medium or an error in the recorded data.

Impact: The tape operation failed.

1504 Minor Error Action 3

Cause: The tape drive hardware is faulty.

Impact: The tape operation failed.

1506 Major Error Action 4

Cause: An error occurred on the SCSI bus. The software has attempted to recover by resetting the SCSI bus.

Impact: Tape and disk operations during the reset are aborted.

1507 Minor Error Action 5

Cause: The tape cartridge is write protected or the incorrect type.

Impact: Tape operation failed.

1508 Minor Error Action 6

Cause: No data was found on the tape.

Impact: Data was not found on the tape drive – cannot restore.

1511 Minor Error Action 7

Cause: The tape drive aborted a SCSI command.

Impact: The tape operation failed.

1513 Minor Error Action 1

Cause: An end of tape was reached without writing all the data to the tape cartridge.

Impact: The tape operation failed.

1517 Minor Error Action 7

Cause: Faulty SCSI hardware.

Impact: The tape operation failed.

1518 Minor Error Action 3

Cause: Faulty SCSI hardware.

Impact: The tape operation failed.

1519 Minor Error Action 3

Cause: No tape drive was detected when attempting a tape operation. This would usually occur during tape backup operations, and usually indicates a problem with the tape drive hardware or SCSI cabling.

Impact: The tape operation will fail.

1535 Minor Error Action 8

Cause: An error occurred reading the disk during a tape backup. The SEER reports the volume and block that could not be read.

Impact: There will be errors if a recovery is attempted from the tape backup.

1536 Minor Error Action 9

Cause: Restore could not find the source cabinet for restoring user profiles. This would usually be as a result of trying to restore a node that was never backed up originally.

Impact: No user profiles for specified node were restored.

1537 Major Error Action 9

Cause: Restore could not open the source cabinet for restoring user profiles. This could be as a result of trying to restore a node that was never backed up originally.

Impact: No user profiles for specified node were restored.

1538 Major Error Action 11

Cause: The restore could not find the destination user cabinet for copying user profiles.

Impact: No user profiles for specified node were restored.

1539 Minor Error Action 7

Cause: An unexpected error was returned from the SCSI driver. This could indicate possible hardware problems with the tape drive or any of the SCSI bus hardware.

Impact: The tape operation failed.

1540 Minor Error Action 10

Cause: This is a catch-all SEER to report tape backup errors. The SEER text and return code indicates the cause of failure.

Impact: The tape backup failed.

1541 Minor Error Action 10

Cause: This is a catch-all SEER to report disk-to-disk backup errors. The SEER text and return code indicate the cause of failure.

Impact: The disk-to-disk backup failed.

1542 Minor Error Action 12

Cause: Could not allocate required memory resources.

Impact: Backup or Restore software will not start up or run correctly.

1543 Minor Error Action 13

Cause: Could not initiate backup task.

Impact: Backup and Restore will not start up or run correctly.

1544 Minor Error Action 14

Cause: The backup task could not inform MMI or BURP that the backup was completed.

Impact: The backup is valid, but future backups might not work.

1545 Major Error Action 11

Cause: The restore could not open the destination user cabinet for copying user profiles. This would be as a result of an error earlier in the restore procedure.

Impact: No user profiles for specified node were restored.

1546 Minor Error Action 15

Cause: Could not find the volume specified in the SEER. There are problems with the volumes on disk.

Impact: The tape operation failed.

1547 Minor Error Action 16

Cause: Could not create the destination volume for a disk-to-disk backup or restore.

Impact: The backup or restore operation failed.

1548 Minor Error Action 17

Cause: Could not obtain volume statistics. Usually this would be as a result of attempting an operation on an unknown volume. It could also be as a result of a faulty node on which the volume resides.

Impact: The backup or restore operation failed.

1549 Minor Error Action 18

Cause: Blocks could not be read off the disk for the tape backup. The number of blocks lost are given in the SEER. The associated SEERs will indicate which blocks were not read correctly.

Impact: A restore from the backup might fail, depending on which blocks were not recoverable.

1550 Minor Error Action 19

Cause: Could not delete the temporary on-line backup volume. This error is not expected during normal operation and would indicate hardware failure.

Impact: The backup was successful but the backup software failed to delete the temporary backup volume. Future backups might fail.

1551 Minor Error Action 20

Cause: There was a tasking error while checking to see if the user wanted to abort the backup operation.

Impact: The backup operation failed.

1552 Minor Error Action 21

Cause: Could not locate volume server for an on-line backup. Usually this would be as a result of attempting an operation on an unknown volume. It could also be as a result of a faulty node on which the volume resides.

Impact: The on-line backup operation failed.

1553 Minor Error Action 22

Cause: MMI/BURP could not rendezvous with the backup task. The task result indicates why the rendezvous failed.

Impact: The backup operation failed.

1554 Minor Error Action 23

Cause: An error occurred while copying a user profile during backup or restore. The SEER indicates which user profile was affected and the additional return code will indicate the actual problem.

Impact: The user will not be recovered during restore and recovery.

1555 Minor Error Action 24

Cause: Another backup task is already running.

Impact: New backup request will not be performed.

1556 Minor Error Action 25

Cause: The backup base software was unable to obtain the backup request from the MMI using the PULL mechanism.

Impact: New backup request will not be performed.

1557 Minor Error Action 9

Cause: The restore software could not locate the volume to be restored on the tape.

Impact: The restore operation fails.

1558 Minor Error Action 26

Cause: The backup task could not inform MMI or BURP of a backup error.

Impact: The backup operation failed.

1559 Minor Error Action 27

Cause: Insufficient memory available to create a heap for a user profile backup.

Impact: The backup operation failed

1560 Minor Error Action 27

Cause: Insufficient memory to create a heap for running the backup task.

Impact: The backup operation fails.

1561 Minor Error Action 28

Cause: The backup task could not be registered.

Impact: The backup operation fails.

1562 Minor Error Action 29

Cause: An off-line backup can not be performed when the VS for that volume is running.

Impact: The backup operation fails.

1563 Minor Error Action 18

Cause: An error while verifying the volume. The SEER indicates the name of the volume and number of the block that had the error. If it is a text volume, the error block could be up to 8 blocks greater than the number specified in the SEER.

Impact: The backup or restore failed.

1564 Minor Error Action 30

Cause: A recoverable error occurred during backup, usually due to bad media or dirty tape heads.

Impact: None

1571 Minor Error Action 31

Cause: An error occurred trying to read the backup volume while patching the volume. Patching occurs after an on-line disk-to-disk backup, or after the restore from tape of a volume that was created from an on-line backup.

Impact: The backup or restore failed.

1572 Minor Error Action 31

Cause: An error occurred patching a volume after a disk-to-disk backup, or a restore.

Impact: The backup or restore failed.

1573 Minor Error Action 32

Cause: The backup volume times in the system records differ more than expected. This is a warning that could indicate that the on-line backup volume may be out of sync with the main volume.

Impact: The backup or restore could be faulty.

1574 Minor Error Action 32

Cause: Invalid root block in backup volume.

Impact: The backup or restore failed.

1575 Minor Error Action 25

Cause: A tasking error occurred while trying to prompt for a new tape.

Impact: The backup failed.

1576 Minor Error Action 33

Cause: A backup was attempted while a backup task was already running. This situation should not occur during regular operation.

Impact: The attempted backup would not begin.

1577 Minor Error Action 34

Cause: Could not shut down the volume server for the profile backup volume.

Impact: Backup operation failed.

1578 Minor Error Action 34

Cause: Could not start up the volume server for the profile backup volume.

Impact: Backup operation failed.

1579 Minor Error Action 35

Cause: The restore software expected a voice volume on tape, but it could not be found. Usually this would occur when trying to restore from a tape which is not a valid backup tape.

Impact: The restore operation failed.

1580 Minor Error Action 35

Cause: The restore software expected a backup volume on tape, but it could not be found. Usually this would occur when trying to restore from a tape which is not a valid backup tape.

Impact: The restore operation failed.

1581 Minor Error Action 36

Cause: Access to the tape drive is not granted since other tape software is currently using it. The following software has mutually exclusive access to the tape drive: volume/selective backup, selective restore, bulk provisioning copy to tape, bulk provisioning provision from tape, the BURP utility when backing up volumes and the tape server. If any one of them is running, all of the others are locked out.

Impact: The operation will not start.

1583 Minor Error Action 1

Cause: An error occurred reading from tape during a restore. Associated SEERs indicate the actual cause of the error. This would usually be caused by dirty tape heads.

Impact: The restore operation failed.

1584 Minor Error Action 37

Cause: An error occurred trying to write data to the disk.

Impact: The restore operation failed.

1585 Minor Error Action 37

Cause: An error occurred trying to read data from the disk.

Impact: The tape archive operation of the BURP utility failed.

1586 Minor Error Action 37

Cause: An error occurred trying to read data from the disk.

Impact: The disk-to-disk copy operation failed.

1587 Minor Error Action 37

Cause: An error occurred trying to write data to the disk during a disk-to-disk copy.

Impact: The disk-to-disk copy operation failed.

1588 Minor Error Action 37

Cause: An error occurred during a disk-to-disk copy from BURP.

Impact: The disk-to-disk copy operation failed.

1589 Minor Error Action 37

Cause: An error occurred during the VSRESTORE command from BURP.

Impact: The operation failed.

1594 Minor Error Action 25

Cause: The software initiating the backup is unable to communicate with the backup task. This situation should not occur during regular operation.

Impact: The backup will not run.

1595 Minor Error Action 38

Cause: The backup software passed invalid parameters to the routine determining time remaining during backup. This error is not expected to be encountered.

Impact: Time remaining during backup calculations will not be performed.

1596 Minor Error No Action

Cause: The user aborted a selective restore.

Impact: The selective restore is aborted at the first convenient opportunity.

Actions

Action 1 Clean the heads of the tape drive and try the operation again. If it fails during backup clean the heads again and retry the operation with a new tape cartridge. If it fails during restore clean the heads again and retry the operation with a previous backup tape.

Action 2 Remove and reinsert the tape cartridge. If that does not work then try again with a new tape cartridge.

Action 3 Contact your Nortel Networks support organization.

Action 4 Retry the operation. Any operations that were accessing the SCSI bus report errors as part of the recovery action.

Action 5 If the tape is write protected turn the write protect dial to allow writing to tape. Also check that it is the correct cartridge type for the tape drive. (Refer to your administration guide for correct tape cartridges.)

Action 6 Clean the tape heads. Check that data exists on the tape cartridge by using the TAPELIST command from BURP. Retry the operation.

Action 7 Try the operation again. If the errors persist, contact your Nortel Networks support organization.

Action 8 Check the disk identified in the SEER printout for possible faults. Restart the backup.

Action 9 If restoring from a disk backup then restart the restore for that node from a tape backup. If restoring from tape then restart the restore for that node from a different set of backup tapes.

Action 10 In the main section of the NTP look up the SEER which corresponds to the return code. Follow the action for correcting the problem given in that SEER and try the backup again.

Action 11 This would be as a result of an error earlier in the restore procedure. Check the SEERs for any errors, perform the appropriate actions and restart the restore for the specific node.

Action 12 Try the backup again when the system is less busy.

Action 13 Contact your Nortel Networks support organization.

Action 14 Contact your Nortel Networks support organization.

Action 15 Contact your Nortel Networks support organization.

Action 16 Contact your Nortel Networks support organization.

Action 17 Check for any associated SEERs to confirm the possible cause.

Action 18 Contact your Nortel Networks support organization.

Action 19 Contact your Nortel Networks support organization.

Action 20 Retry the operation, possibly at a different time when the system is not as busy.

Action 21 Correct the volume number before retrying the operation. Check for any associated SEERs to confirm the possible cause.

Action 22 Contact your Nortel Networks support organization.

Action 23 If the error occurred during a backup then correct the problem with the user and repeat the operation. If the error occurred during a restore and recovery then the user will have to be added after the system has been restarted.

Action 24 Wait for previous backup request to finish, or abort it, and then redo the operation.

Action 25 Try the backup again. The problem repeats then logout and login in again and retry the backup. If the problem still exists, contact your Nortel Networks support organization.

Action 26 Contact your Nortel Networks support organization.

Action 27 Contact your Nortel Networks support organization.

Action 28 The name server is full, possibly due to too many tasks running. Try the backup when the system is less busy.

Action 29 Perform an online backup, or shut down the volume server before backing up off-line.

Action 30 Clean tape heads, and follow recovery action given on the screen. If problems persist, contact your Nortel Networks support organization.

Action 31 Attempt operation again. If it fails check the disk drive for errors. Associated SEERS might indicate the cause of the problem.

Action 32 For disk-to-disk backup try the operation again. For restore try restoring from another set of backup tapes.

Action 33 This situation should not occur during regular operation. If it is acceptable to reboot your system, then reboot it at a convenient time. Otherwise, contact your support organization.

Action 34 The return code will indicate the cause of the problem. Retry operation when system is not as busy.

Action 35 Use a valid tape. If problem persists contact your Nortel Networks support organization.

Action 36 The most common situation is if a backup is running (scheduled or immediate) and another tape operation, such as bulk provisioning, is attempted. Wait for the backup to complete and try again. If a backup is not running then contact your Nortel Networks support organization.

Action 37 Associated SEERs and the return code indicates the actual cause of the problem. Correct the problem and retry operation.

Action 38 Make a note of the attempted operation and contact your Nortel Networks support organization.

System Operations

Introduction

On Meridian Mail systems, System Operation installs or updates the software on a hardware platform.

SEERs may occur during the following system operations (SYSOP) functions:

- installation
- comprehensive upgrade which includes:
  - conversion
  - upgrade
  - feature expansion
  - hardware modification (add channels, add nodes)
  - platform migration
  - storage expansion
  - language expansion
- disk operations (disk-to-disk back up, disk shutdowns)

System operation checklist

To resolve most SEERs in this class the Action required is to “Follow the system operation checklist.” The checklist consists of the following steps:

- power the system off
- check that all boards and disks are properly inserted
- check that all cables are connected
- check that the tape is inserted into the drive and that the drive door is closed
- power on system and check that the power has been turned on for all nodes

- after tape boots, type <Ctrl><W> and a ‘Console and Printer’ box will pop up. Type <P> to generate a more detailed printout of your operation. If the operation completes successfully, type <Ctrl><W>, and after the ‘Console and Printer’ box pops up press <P> followed by <Ctrl> <Print Screen>. This will take the system out of print mode. If the operation fails again please have the printout ready when talking to your Nortel Networks support organization.

Software configuration problems are often caused by tape errors. A complete list of SCSI device sense key and error codes can be found in Appendix A.

Reports

1600 Info System Action 2

Cause: The system is providing information about a process.

Impact: None.

1601 Minor Error Action 2

Cause: A file could not be closed.

Impact: The operation will continue without impact.

1602 Critical Error Action 1

Cause: A file could not be read.

Impact: The operation will abort.

1603 Critical Error Action 1

Cause: A file could not be written to.

Impact: The operation will abort.

1604 Critical Error Action 1

Cause: The data file contains inconsistencies.

Impact: The operation will abort.

1605 Critical Error Action 1

Cause: The program could not be forked.

Impact: The operation will abort.

1606 Critical Error Action 1

Cause: Error deleting MISA volume

Impact: The operation will abort.

1608 Info Error Action 2

Cause: The system was unable to shut down a volume server. The volume number that could not be shut down is given in the SEER. The lower level return code describes the reason why the volume server could not be shut down.

Impact: Depends on the reason why the volume server was shut down. Refer to related SEERs and messages displayed to the screen to determine the impact.

1609 Info Error Action 2

Cause: Error opening sc_seer.data file

Impact: The file containing the SEER text could not be accessed. Seers will still be printed out but they will not have descriptions.

1610 Info Error Action 2

Cause: The system was unable to shut down the helix server. The name of the server that could not be shut down is given in the SEER. The lower level return code provides the reason why the volume server could not be shut down.

Impact: Depends on the reason why the helix server was shut down. Refer to related SEERs and messages displayed to the screen to determine the impact.

1611 Info Error Actions 3 and 2

Cause: Failed to audit requested volume.

Impact: The operation will continue without impact.

1612 Info Error Action 1

Cause: Too many retries were attempted on the same operation. Associated SEERs will give the actual cause of the problem.

Impact: Depends on the actual function that was being retried. The operation will normally abort.

1613 Critical Error Action 1

Cause: The system detected an invalid filter type, and was unable to perform a data filtering operation.

Impact: The operation will abort.

1614 Critical Error Action 1

Cause: The system detected an invalid substitution token and was unable to perform a data substitution operation.

Impact: The operation may abort.

1615 Critical Error Action 1

Cause: Could not copy helix file.

Impact: The operation will abort.

1616 Critical Error Action 1

Cause: The hardware database was not created.

Impact: The operation will abort.

1617 Critical Error Action 1

Cause: The hardware database could not be opened.

Impact: The operation will abort.

1618 Minor Error Action 2

Cause: The hardware database could not be closed.

Impact: The operation will continue without impact.

1619 Critical Error Action 1

Cause: A component could not be added to the hardware database.

Impact: The operation will abort.

1620 Critical Error Action 1

Cause: A search of the hardware database could not be initiated.

Impact: The operation will abort.

1621 Critical Error Action 1

Cause: Search of the hardware database could not be completed.

Impact: The operation will abort.

1622 Minor Error Action 2

Cause: A DD file could not be closed.

Impact: None.

1623 Critical Error Action 1

Cause: A DD record could not be created.

Impact: The operation will abort.

1624 Info Error Action 1

Cause: Error locating :RAM or :BOOT100 directory. Too many retries were attempted on the same operation. Associated SEERs will give the actual cause of the problem.

Impact: Depends on the actual function that was being retired. The operation will normally abort.

1625 Critical Error Action 1

Cause: A DD commit operation failed.

Impact: The operation will abort.

1626 Critical Error Action 1

Cause: Could not read a record from the file 1/cust/cptd_data. The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort, since it was not able to create the Call Progress Tone Detection configuration file.

1627 Critical Error Action 1

Cause: A Cabinet Manager FID could not be obtained.

Impact: The operation will abort.

1628 Critical Error Action 1

Cause: A cabinet could not be opened.

Impact: The operation will abort.

1629 Critical Error Action 1

Cause: A copy could not be performed on a cabinet file.

Impact: The operation will abort.

1630 Minor Error Action 2

Cause: The specified cabinet could not be closed.

Impact: The operation will continue without impact.

1631 Major Error Action 1

Cause: The specified file could not be added to a cabinet.

Impact: The operation will abort.

1632 Critical Error Action 1

Cause: A FIR could not be obtained from the given pathname.

Impact: The operation will abort.

1633 Minor Error Action 2

Cause: Error in IP address format.

Impact: The operation will continue without impact.

1636 Critical Error Action 1

Cause: The hardware detection operation failed.

Impact: The operation will abort.

1637 Minor Error Action 2

Cause: Failed to audit the volume on the disk.

Impact: Usually no impact, but operations can fail afterwards if there is insufficient space on the volume.

1638 Info System Action 2

Cause: An audit on a volume server did not complete. The volume number is given in the SEER. The reason why the audit could not be completed is given in the lower-level return code.

Impact: Usually no impact, but operations can fail afterwards if there is not sufficient space on the volume.

1639 Critical Error Action 1

Cause: The write OS operation failed.

Impact: The operation will abort.

1640 Critical Error Action 1

Cause: The operation of initialize Disk Control Block (MICB) failed.

Impact: The operation will abort.

1641 Critical Error Action 1

Cause: The operation of configure a disk failed.

Impact: The operation will abort.

1643 Critical Error Action 1

Cause: The operation of loading OS to the voice nodes failed.

Impact: The operation will abort.

1645 Critical Error Action 1

Cause: Could not convert a language from helix format.

Impact: The operation will fail.

1646 Critical Error Action 1

Cause: Could not find a specific record in the file /l/cust/cpt_data. The record number that could not be found will be given in the SEER. The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort as it will not be able to create the Call Progress Tone Detection configuration file.

1647 Critical Error Action 1

Cause: The Corporate Directory was not initialized.

Impact: The operation will abort.

1648 Critical Error Action 1

Cause: Error opening a file. The file name is specified in the SEER. The lower level return code indicates the actual cause of the problem.

Impact: Depends on the actual function that was performed. Refer to related SEERs and messages displayed to the screen to determine the impact.

1649 Critical Error Action 1

Cause: Could not allocate Segment.

Impact: The operation will abort.

1650 Critical Error Action 1

Cause: Could not allocate heap.

Impact: The operation will abort.

1651 Critical Error Action 1

Cause: The hardware database could not be modified.

Impact: The operation may abort.

1652 Critical Error Action 1

Cause: The specified volume was not created.

Impact: The operation will abort.

1653 Critical Error Action 1

Cause: The MI_LogVol operation failed.

Impact: The operation will abort.

1654 Critical Error Action 4

Cause: The specified volume was not formatted.

Impact: The operation will abort.

1655 Critical Error Action 5

Cause: The disks on the system are not large enough for the specified storage hours.

Impact: The operation will abort.

1656 Critical Error Action 1

Cause: Failed to validate version on disk matches version on tape.

Impact: The operation will abort.

1657 Info System Action 2

Cause: The cache volumes could not be created on node 2 because it has a smaller than normal disk.

Impact: The system may slow down during periods of heavy traffic.

1658 Critical Error Action 1

Cause: Disk drive not accessible to node

Impact: The operation will abort.

1660 Critical Error Action 1

Cause: The Guest Access Console (GAC) names could not be retrieved from the hardware database

Impact: The operation will abort.

1661 Critical Error Action 1

Cause: Failed to obtain statistics for a volume server.

Impact: The operation will abort.

1662 Critical Error Action 1

Cause: Failed to shutdown the organization directory server (DR_Server).

Impact: The operation will abort.

1663 Critical Error Action 1

Cause: Failed to audit the organization directory server (DR_Server).

Impact: The operation will abort.

1664 Critical Error Action 1

Cause: Organization directory server (DR_Server) audit wait failed.

Impact: The operation will abort.

1665 Critical Error Action 1

Cause: Failed to perform validation of user cabinet against the organization directory.

Impact: The operation will abort.

1666 Critical Error Action 1

Cause: Failed to compress a voice volume.

Impact: The operation will abort.

1667 Critical Error Action 1

Cause: Although voice volume compression is working, it failed to compress to the desired size.

Impact: The operation will abort.

1668 Critical Error Action 1

Cause: Failed to alter the voice volume size.

Impact: The operation will abort.

1669 Critical Error Action 1

Cause: Failed to expand the voice volume.

Impact: The operation will abort.

1670 Critical Error Action 1

Cause: Failed to get the Volume Server Operation Measurement data.

Impact: The operation will abort.

1671 Critical Error Action 1

Cause: Index into feature array not found.

Impact: The operation will abort.

1672 Critical Error Action 1

Cause: Error copying a helix file. The file name is specified in the SEER. The lower level return code indicates the actual cause of the problem.

Impact: Depends on the function performed at the time. Refer to related SEERs and messages displayed in order to determine the impact.

1673 Critical Error Action 1

Cause: Could not create the file /l/dsp/dsp_config. The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort as it could not create the Call Progress Tone Detection configuration file.

1674 Critical Error Action 6

Cause: Could not get the statistics for a File server.

Impact: The operation has failed.

1675 Critical Error Action 1

Cause: Error determining the node number from the disk name. The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort.

1676 Critical Error Action 1

Cause: Failed to add a language record to the system profile.

Impact: The operation will abort.

1677 Critical Error Action 1

Cause: Failed to initialize the network database.

Impact: The operation will abort.

1679 Critical Error Action 1

Cause: Error determining the free space on a volume. The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort.

1680 Minor Error Action 2

Cause: Error shutting down the disk operations controlling the task on the MSP node (prime node). The lower level return code will indicate the actual cause of the problem.

Impact: Depends on what operations follow. Look at the SEERs following this one to determine the impact.

1681 Minor Error Action 2

Cause: Error shutting down a disk operations task. The node number can be determined from the numeric characters at the end of the task name ‘SCNV’ in the SEER. The lower level return code will indicate the actual cause of the problem.

Impact: Depends on what operations follow. Look at the SEERs that follow this one to determine the impact of the problem.

1683 Info System Action 2

Cause: Error deleting a helix file. The lower level return code will indicate the actual cause of the problem.

Impact: None, but could indicate possible problems with the disk, tape, or file system.

1684 Critical Error Action 1

Cause: Error starting up the organizational directory (DR). The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort.

1685 Critical Error Action 1

Cause: Error checking the organizational directory (DR). The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort.

1686 Info Error Action 1

Cause: A timeout occurred while waiting for a task to start up. The task name is printed in the SEER.

Impact: Depends on the actual function that was being performed. Refer to related SEERs and messages displayed on the screen to determine the impact.

1687 Info Error Action 1

Cause: A timeout occurred while waiting for a task to shut down. It is not possible to determine the name of the task from the SEER.

Impact: Depends on the actual function that was being performed. Refer to related SEERs and messages displayed on the screen to determine the impact.

1689 Critical Error Action 1

Cause: Error determining the size of a voice services file. The name of the file is printed in the SEER.

Impact: The operation will abort.

1690 Critical Error Action 1

Cause: Failed to open a Voice Service file.

Impact: The operation will abort.

1691 Critical Error Action 1

Cause: Error starting the Program Resource Manager (PRM). The text in the SEER will indicate the problem.

Impact: The operation will abort.

1692 Critical Error Action 1

Cause: The heap was not available to determine the nodes in the system.

Impact: The operation will abort.

1693 Critical Error Action 1

Cause: Error obtaining the node information from the Program Resource Manager (PRM). The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort.

1694 Info Error Action 2

Cause: Failed to change password to the default password.

Impact: The operation will fail.

1695 Critical Error Action 1

Cause: Error extracting the boot track file names from the system record. The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort.

1696 Critical Error Action 1

Cause: Failed to add system profile.

Impact: The operation will abort.

1697 Critical Error Action 1

Cause: Failed to add first customer profile.

Impact: The operation will abort.

1698 Critical Error Action 1

Cause: Not enough room on any volume to move Voice Services to.

Impact: The operation will abort.

1699 Critical Error Action 1

Cause: Internal software error. An incorrect fill type was supplied. The lower level return code identifies the incorrect fill type.

Impact: The operation will abort.

Actions

Action 1 The operation has been aborted. Follow the appropriate recovery steps and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware, focusing on any new hardware or cables which have been added to the system. If no hardware faults are found, try another Install/Data tape. If the problem continues, contract your Nortel Networks support representative.

Action 2 There is no operational impact. Allow the operation to continue.

Action 3 This problem may indicate there is a corrupt message in a volume. By using the other SEERs relating to either volumes or messages you can find and remove the faulty message.

Action 4 The specified volume has not been formatted. This problem indicates you are using an Install/Data tape which predates the software currently running on the system. If this is not the case, follow Action 1.

Action 5 The disks found on the system are not large enough to allow the operation to continue. Check the installation and modification NTP for the minimum disk sizes.

Action 6 One or more of the drives needs to be replaced with a larger drive. If a larger drive is not available, try running “Standardize Volume Sizes.”

System Operation (SYSOP)

Introduction

System Operation installs or updates the software on a hardware platform.

SEERs may occur during one of following system operations (SYSOP) functions:

- installation
- comprehensive upgrade which includes:

  - conversion
  - upgrade
  - feature expansion
  - hardware modification (add channels, add nodes)
  - platform migration
  - storage expansion
  - language expansion
- disk operations (disk-to-disk back up, disk shutdowns)

System Operation Checklist

To resolve most SEERs in this class the Action required is to “Follow the system operation checklist.” The checklist consists of the following steps:

- power the system off
- check that all boards are properly inserted
- check that all cables are connected
- check that the tape is inserted into the drive and that the drive door is closed
- power on system and check that the power has been turned on for all nodes

- after tape boots, type <Ctrl>< W > and a ‘Console and Printer’ box will pop up. Type <P> to generate a more detailed printout of your operation. If the operation completes successfully, type <Ctrl><W,> and after the ‘Console and Printer’ box pops up press <P> followed by <Ctrl> <Print Screen>. This will take the system out of print mode. If the operation fails again please have the printout ready when talking to your Nortel Networks support organization.

Software configuration problems are often caused by tape errors. A complete list of SCSI device sense key and error codes can be found in Appendix A.

Reports

1701 Critical Error Action 1

Cause: Bad system type detected.

Impact: The operation will abort.

1702 Critical Error Action 1

Cause: The data required by a system operation was not found in the data files.

Impact: The operation will abort.

1703 Info System Action 2

Cause: User aborted moving the voice service cabinet.

Impact: None.

1704 Critical Error Action 3

Cause: Error occurred while moving voice services to another volume. The lower level return code will indicate the actual cause of the problem.

Impact: The moving of voice services failed.

1705 Critical Error Action 1

Cause: Write to Billing Control Table failed.

Impact: The operation will abort.

1708 Info System Action 2

Cause: Moving of Voice Services successfully completed.

Impact: None.

1709 Critical Error Action 1

Cause: Adding switch records failed.

Impact: The operation will abort.

1713 Critical Error Action 3

Cause: Failed to copy voice service cabinet.

Impact: The operation will abort.

1714 Critical Error Action 1

Cause: Error opening the organizational directory while trying to move voice services.

Impact: The moving of voice services failed.

1715 Critical Error Action 1

Cause: Failed to find users.

Impact: The operation will abort.

1716 Critical Error Action 4

Cause: Failed to move user volume.

Impact: The operation will abort.

1719 Critical Error Action 5

Cause: Number of nodes cannot be reduced.

Impact: The operation will abort.

1720 Critical Error Action 1

Cause: Failed to obtain the UAT/MAT Data Port names.

Impact: The operation will abort.

1721 Critical Error Action 1

Cause: Failed to adjust the volume on the disk.

Impact: The operation will abort.

1722 Critical Error Action 1

Cause: Failed to adjust the user on the volume.

Impact: The operation will abort.

1723 Critical Error Action 1

Cause: Error syncing voice service definitions.

Impact: The operation will abort.

1724 Critical Error Action 1

Cause: Error updating organization directory (DR) for voice service definitions

Impact: The operation will abort.

1725 Critical Error Action 1

Cause: Error syncing voice form for a given volume.

Impact: The operation will abort.

1726 Critical Error Action 6

Cause: Not enough room on disk for the requested number of languages.

Impact: The operation will abort.

1733 Critical Error Action 1

Cause: Tape retensioning failed

Impact: The operation will abort.

1735 Info System Action 2

Cause: The system already has the maximum number of languages.

Impact: No new languages can be added.

1736 Critical Error Action 1

Cause: Error trying to open the source cabinet while trying to move a file. The SEER text specifies the cabinet name. The lower level return code indicates the cause of the problem.

Impact: Depends on the actual function that was being performed. Refer to related SEERs and messages displayed to the screen to determine the impact.

1737 Critical Error Action 1

Cause: Error trying to open the destination cabinet while trying to move a file. The SEER text specifies the cabinet name. The lower level return code indicates the cause of the problem.

Impact: Depends on the actual function that was being performed. Refer to related SEERs and messages displayed to the screen to determine the impact.

1738 Critical Error Action 1

Cause: Error determining if a file exists. The SEER text specifies the cabinet name. The lower level return code indicates the cause of the problem.

Impact: Depends on the actual function that was being performed. Refer to related SEERs and messages displayed to the screen to determine the impact.

1739 Critical Error Action 1

Cause: Error deleting the old voice services cabinet. The lower level return code indicates the cause of the problem.

Impact: The operation will abort.

1740 Info System Action 2

Cause: Warning that voice services can not be moved in Option 11 systems.

Impact: None.

1741 Critical Error Action 1

Cause: Error registering the volume operations task in the name server. The cause of the problem is not available in the SEER.

Impact: The operation will fail.

1742 Minor Error Action 2

Cause: Error de-registering the volume operations task from the name server. The cause of the problem is not available in the SEER.

Impact: Depends on the actual function that was being performed. Refer to related SEERs and messages displayed to the screen to determine the impact.

1743 Critical Error Action 1

Cause: Error determining the state of the disks on a node. The lower level return code is given in Appendix A of the SEER manual under the Major Heading 'Disk Syncing Error Codes' and minor heading 'sd_info'. The SCSI port for the query is also specified in the SEER.

Impact: The operation will fail.

1744 Critical Error Action 1

Cause: Error enabling SCSI SEER reporting.

Impact: The operation will fail.

1745 Critical Error Action 1

Cause: Error during disk operation. The text of the SEER specifies the disk operation number, the SCSI IDs of the disks and the lower level return code. The disk operation and lower level return code can be decoded from the Disk Operation Lower Level Return Codes list found in the appendix of this manual.

Impact: The operation will fail.

1746 Critical Error Action 1

Cause: Error detected during disk operation. The text of the SEER contains the list of nodes that the disk operation affected and the operation number which can be decoded from the Disk Operation Lower Level Return Codes list found in the appendix of this manual, and a lower level return code, which is available in the table or part of a task result. There can sometimes be SEERs from individual nodes describing the same problem.

Impact: The operation will fail.

1747 Critical Error Action 1

Cause: Error determining the state of the disks on a node. The lower level return code can be a task result or an error described in Appendix A of the SEER manual under the Major Heading ‘Disk Syncing Error Codes’ and minor heading ‘sd_info’.

Impact: The operation will fail.

1748 Critical Error Action 1

Cause: Error registering the volume control task in the name server.

Impact: The operation will fail.

1749 Critical Error Action 1

Cause: Error locating the node volume task in the name server, as part of a disk operation. The SEER text also specifies the node number and the disk operation number. There is no lower level return code.

Impact: The operation will fail.

1750 Critical Error Action 1

Cause: Error locating the node volume task in the name server, as part of obtaining the disk information. The SEER text also specifies the node number and the SCSI port number. There is no lower level return code.

Impact: The operation will fail.

1751 Critical Error Action 1

Cause: Error sending information to the node volume task, as part of a disk operation. The SEER text also specifies the node number and the disk operation number. There is no lower level return code.

Impact: The operation will fail.

1752 Critical Error Action 1

Cause: Error receiving information from the node volume task, as part of a disk operation. The SEER text also specifies the node number. The lower level return code can be a task result, in which case the node number will be invalid, or an error from the disk operation, in which case there should be an associated 1745 SEER.

Impact: The operation will fail.

1753 Info Debug Action 1

Cause: An error occurred when deregistering the volume control task.

Impact: None. Could indicate that there were other problems in the system.

1754 Critical Error Action 1

Cause: Task error during initiation of the volume control task.

Impact: The operation will fail.

1755 Critical Error Action 1

Cause: Task error creating buffers for the volume control task.

Impact: The operation will fail.

1756 Critical Error Action 1

Cause: Error logging on to a helix server. The server name is given in the SEER text.

Impact: The operation will fail.

1757 Critical Error Action 1

Cause: Error allocating memory from heap.

Impact: The operation will fail.

1779 Critical Error Action 1

Cause: Error resetting a specific node.

Impact: The operation will fail.

1784 Critical Error Action 1

Cause: Failed to detect the SBC card.

Impact: The operation will fail.

1785 Critical Error Action 1

Cause: Failed to search the data port in the MSP node (prime node).

Impact: The operation will fail.

1786 Critical Error Action 1

Cause: Error sending volume information to a node volume task. The destination node number and volume number are printed in the SEER text. The lower level return code is a task result.

Impact: The operation will fail.

1787 Critical Error Action 1

Cause: Error sending volume standardization command to a node volume task. The destination node number and operation number are printed in the SEER text. The lower level return code is a task result.

Impact: The operation will fail.

1788 Critical Error Action 1

Cause: Error accepting a reply from a node volume task, as part of volume standardization. The destination node number is printed in the SEER text. The lower level return code can be

- a task result, in which case the node number will be invalid
- an error from the disk operation

Impact: The operation will fail.

1789 Critical Error Action 1

Cause: Disks that were expected to be shadowed for a specific operation are not in the shadowed state.

Impact: There will be no way to recover the system if the operation fails.

1790 Info System Action 2

Cause: User aborted operation that required disks to be in a shadowed state.

Impact: None.

1791 Info Admin Action 2

Cause: User elected to continue an operation that required disks to be in a shadowed state.

Impact: None.

1793 Critical Error Action 1

Cause: An invalid SCSI port was specified.

Impact: The operation will fail.

1794 Critical Error Action 1

Cause: During the operation, the user has failed to enter a valid keycode and has selected to give up retrying.

Impact: The operation has aborted, however the system may be rebooted into service.

1795 Critical Error Action 1

Cause: Attempt to read serial number from the switch has failed

Impact: The operation will not be able to continue.

1796 Critical Error Action 1

Cause: Error reading font data file (FONTFILE)

Impact: The operation will abort.

1797 Critical Error Action 1

Cause: An error has occurred while decoding the keycode.

Impact: The operation will abort, however the system may be rebooted into service.

1798 Critical Error Action 1

Cause: Error creating font record.

Impact: The operation will abort.

1799 Critical Error Action 2

Cause: An attempt was made to add HVS to a system using a feature expansion.

Impact: The user will be prompted to enter another keycode.

Actions

Action 1 The operation has been aborted. Follow the appropriate recovery steps and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware, focusing on any new hardware or cables which have been added to the system. If no hardware faults are found, try another Install/Data tape. If the problem continues, contact your Nortel Networks support representative.

Action 2 There is no operational impact. Allow the operation to continue.

Action 3 Most likely there was not enough room on the destination volume to move the voice services. You will need to either remove some of the voice services or remove some user messages from the destination volume. Run an audit, before re-attempting the operation.

Action 4 The information for a user has been corrupted and must be added again. Most likely the user had a corrupted message. The corrupted message will have been lost.

Action 5 The number of nodes may not be reduced. If the number of nodes is not being reduced, check the hardware and the cables to find why the node(s) are not booting. Also, check to ensure the node has powered up.

Action 6 More room must be created on the destination volume, then an audit must be run. If the system has two or fewer nodes then room needs to be created on VS1. If there are more than two nodes on the system, room needs to be created on VS2 for the second language, and on VS1 for languages 3 or 4. Remember to run an audit after creating space on a volume.

Bus Controller Diagnostics (BCD)

Introduction

The Bus Controller Diagnostics (BCD) program conducts integrity tests on the Bus Controller Card of MSP nodes on the MSM platform.

These diagnostics are run automatically during startup. If the diagnostics fail, the card is marked as faulty.

Reports

1801 Info Admin No Action

Cause: Bus controller diagnostics have started on the specified node.

Impact: None.

1802 Info Admin No Action

Cause: Bus controller diagnostics have passed on the specified node.

Impact: None.

1803 Major Error Action 1

Cause: The specified bus controller diagnostic test has failed.

Impact: The bus controller card may not be functioning correctly. This may affect the systems ability to declare alarms, keep time or switch to redundant nodes.

Actions

Action 1 Locate the node and the card of the failing diagnostic. Ensure that the card exists and is in the correct slot. Correct the situation or replace the card. If the problem persists, contact your Nortel Networks support Organization.

Voice Handler (VH)

Introduction

The Voice Handler is a procedural interface for applications that provides access to, and control of, voice records and voice segments. The Voice Handler

- initializes (session start) and releases (session termination) a voice channel, releases memory, and stops internal tasks
- creates, opens, closes, and deletes voice record.
- plays a voice record, skips forward and backward in playback, records a voice record, and stops playback and recording
- obtains the total voice segment duration and changes the size limit of a voice segment
- initializes and releases system and service prompt files
- plays and stops the playback of a voice prompt as defined by a template

Some voice applications call the Voice Handler synchronously, and wait for it to complete its given task before they continue. Other voice applications do not call the Voice Handler synchronously, but provide a Voice I/O Entry to the Voice Handler and continue to run at the same time as the Voice Handler.

The VH and FH (FAX Handler) are closely related. The FH is a procedural interface to the same I/O task used by the VH (called the VPIO). Class 20 SEER codes can be emitted by the VH or the VPIO task. Therefore, class 20 SEERs may be observed when the VPIO task is operating in fax mode. Refer to the chapter “Class 81 FAX Handler (FH)” for more information on the FH.

Impact of VH errors

Different voice and fax applications may react differently to the same Voice Handler error. For example, if the Voice Handler cannot find any voice records, one application may terminate the call, another application might try the call again, and another might play a message like “You have no voice messages” to the user.

These SEERs are reported either:

- as part of the class 20 SEERs where the SEERs are generated by the application's internal VPIO task, or
- as part of the application program's SEERs. The class 20 return codes (for example: 2041) may be included in a SEER of this type.

Content of Class 20 SEERs

This chapter is primarily concerned with SEERs reported as part of the class 20 SEERs. These SEERs contain the following types of information:

1 Voice Handler error codes and text descriptions about the routine in which the error occurred, the nature of the error, and where appropriate:

a. the task result

b. the current voice fax operation that the internal task is executing:

0	vh_cNoOpr	11	vh_cUnlink
1	vh_cPlayVoice	12	fh_cTransmitFax
2	vh_cPlaySkip	13	fh_cTrimTab
3	vh_cRecord	14	fh_cReceiveFax
4	vh_cPause	15	fh_cAbortFax
5	vh_cContinue	16	fh_cCloseSession
6	vh_cStopVoice		
7	vh_cStopPrompt		
8	vh_cPlayPrompt		
9	vh_cQueryCurUn		
10	vh_cSetVolume		

c. the message state of the internal task regarding the asynchronous activity of the voice handler:

0 msUndefined
1 msInit
2 msIdle
3 msSetPly (setting up for play operation)
4 msPlay
5 msPlyEndP (shutting down play operation)
6 msSetPPauseP (setting up for pause while in play)
7 msPPauseP (pause while in play)
8 msSetPContP (setting up to continue playback)
9 msPlyStopP (playback stopped state)
10 msSetRecP (setting up for recording)
11 msRecord
12 msSetRPauseP (setting up for pause while recording)
13 msRPauseP (pause while in record)
14 msSetRContP (setting up to continue recording)

15 msLongSilP (long silence while in recording)
16 msRecStopP (recording stopped state)
17 Switching to another VPH
18 Setting up to Transmit a Fax
19 Transmitting a fax
20 Waiting for transmit fax data
21 Waiting for Retransmit data
22 Cleaning up fax session
23 Finished fax transmit
24 Setting up for fax receive
25 Receiving a fax
26 Cleaning up fax receive session
27 Finished fax receive

d. the application command currently in progress:

0 acUndefined
1 acInit
2 acIdle
3 acPlyPauseP (pause while in play)
4 acPlay
5 acSkipP (skip forward or skip backward)
6 acPrompting
7 acRecPauseP (pause while in record)
8 acRecord
9 acStopVoice
10 acStopPrompt
11 acTransmitFax
12 acReceiveFax
13 acAbortFax
14 acCloseSession
15 acError

2 Errors related to VP Handler communication such as send failures, response time-outs, aborted recordings, and bad VP Handler commands and data. The associated VP Handler will be reported in the formatted RTID (VPH remote task ID in hexadecimal).

3 Return codes from lower level software, such as VS or DD.

Reports

2000 Critical Error Action 1

Cause: Failure to allocate memory from the heap passed in by the application.

Impact: The impact depends on the current operation of the VH; either the prompt files are not initialized, or the current recording fails.

2001 Minor Error Action 15

Cause: Integrity failures.

1. New Pool failures at load time.
2. Bad command codes or record modes encountered and not immediately detected when first issued by the voice application (for example, asynchronous). These should result only if processor memory is corrupt.
3. Invalid VP Handler silence unit information encountered.
4. Voice unit data, as stored in the voice block, seems to have been corrupted when traversing the voice block for appends or inserts while finishing the recording.
5. Failure to locate the correct position (unit or duration), or voice block, within a voice segment for playing, skipping forward or backward, or recording.

The SEER displays the task result or actual bad codes or modes encountered. If an integrity failure occurs in skipping forward or backward the output contains:

— an error string that identifies the error location,

— the current unit for errors occurring before skip calculation and after the find block routine has been called,

— the current duration for errors occurring after the skip calculation,

— 10 byte hexadecimal dump of the FID of the file containing the voice and voice paragraph records,

— “PlySkp:Bef:”, <current unit>, <FID>

— “PlySkp:Aft:”, <current duration>, <FID>

— “PlySkp:Blk:”, <current unit>, <FID>

Impact: The voice application will react to the error appropriately.

2003 Minor Error Action 3

Cause: The VH received a command that was not legal for the current state of the VH. This may occur, for example, if a fax command was received while the VH was operating in voice mode. This SEER may indicate a memory corruption problem.

Impact: The command is rejected by the VH. The current session may not operate as expected.

2004 Minor Error Action 4

Cause:

1. If the text says “VcRspTmO in MsgState: <message state>”, the VH timed out while waiting for a response from the application or the VP Handler.

2. If the text says “SetVHTimer: Unknown Msg State = <message state>”, an internal call has been made to SetVHTimer for an unknown message state.
3. If the text says,“VcRspTmO:Unknown MsgState,” the channel was released while still in recording state, as indicated by the text.

Impact: Cases 1 & 2. The VPIO task will cause an EXCEPTION to be raised in the application which will stop the VPIO task, clean up resources, and stop itself.

Case 3. The Voice Handler will not save the recording.

2005 Minor Error Action 5

Cause:
1. If the text says “PrQ has unused data.1st SeqNum =, <prompt data sequence ID>”, there is no matching prompt playback command in the command queue for remaining data in the prompt data queue.
2. The voice application has called a function that is not currently supported, as indicated by the text.

Impact: Case 1. The remaining data in prompt data queue are discarded.

Case 2. The Voice Handler rejects the command.

2010 Minor Error Action 6

Cause: The application requested the VH to manipulate (i.e., play, record) a voice file that has not been opened.

Impact: The file will not be played or recorded.

2012 Minor Error Action 7

Cause: The voice application is trying to open a record which is not a voice record.

Impact: The voice application will react appropriately.

2013 Minor Error Action 7

Cause: While skipping forward or backward during playback, the voice segment’s paragraph record could not be located.

Impact: The voice application will react appropriately.

2015 Minor Error Action 8

Cause: Bad prompt set was submitted by the application.

Impact: Prompt will not play.

2040 Minor Error Action 9

Cause: The VP Handler has not replied to the VPIO task within a set time, causing the current operation to stop. For some VP Handler messages, a VP TimeOut is announced only after a retry.

Impact: The Voice Handler clears the command and prompt data queues, sets its operation code to no-op, resets its state to idle, and clears the Voice Handler timer.

2041 Minor Error Action 3

Cause
1. If the text says "Vpio:DoTermRd: Bad RBuffAddr sent by VPH", the Voice Handler has received an unexpected or invalid playback termination code and the code was rejected.
2. If the text says "Vpio:VPReq:Bad command sent by VP, cmd=<cmd>, msgstate=<state>, VPH<HWLOC>", the Voice Handler has received an unexpected or invalid VP Handler command.
3. If the text says "Tasking Error<TaskResult>, sending to VPH<RTID>, VPH<HWLOC>", a send to VP Handler has failed on the sending or receiving side.

Impact:
Case 1. Minor to the Voice Handler.
Case 2. Minor to the Voice Handler, but it resets its timer.
Case 3. The Voice Handler clears the command and prompt data queues, sets its operation code to no-op, resets its state to idle, and clears its timer.

2042 Minor Error Action 10

Cause: An expected VP Handler silence message has been lost.

Impact: The actual voice data stored in the voice blocks is not affected. The DD records maintained by Voice Handler, to reflect the current recording's voice and silence phases, will be written to disk as if the lost silence was not expected (for example, some silence phases will not exist). This may affect playing, skipping, or recording from the current position within this voice segment.

2043 Minor Error Action 11

Cause: If the text says "Bad system/service prompt file segment index:, <index posn in file>, <message state>, the prompt segment (not a spoken name) cannot be indexed (using file system ddindex command), cannot be read (using file-system ddread command), or has no voice data.

Impact: The Voice Handler skips over this bad prompt segment and tries to process the next prompt segment. If this is the last prompt segment for a play prompt request which requires a reply to the application, then the application will be told about this error, and the voice application will react appropriately.

2053 Minor Error Action 12

Cause: If the text says "Bad spoken name. Check FID: <FID> because, <original error>, <message state>", one of the following things happened:
1. The voice record in the spoken name file was not found
2. The file specified by the FID cannot be found
3. A disk read of the voice record has failed

If the text says “Bad spoken name. Check FID: <FID> because, 0, <message state>”, there are no voice blocks for the spoken name. This means that nothing was recorded or the spoken name was recorded with the handset on hook.

The return code isolates the cause.

Impact: The voice application will react appropriately.

2060 Minor Error Action 10

Cause: An error occurred while trying to change the playback speed of the message. The cause is indicated by the lower level return code at the end of the SEER.

Impact: Message playback may occur at a speed other than the speed specified by the user.

2090 Minor Error Action 13

Cause: A tasking error occurred in communication between the application and the VPIO task, between the VPIO task and the application, or the VPIO task could not be initiated. If the text says “Tasking Error <error code>, sending to Application, Event <EventCode>,” then the event code indicates the event that is being passed to the application. The possible event codes are as follows:

- 2050 - playback has reached the end of a voice segment
- 2051 - acknowledgment of the end of a prompt playback
- 2052 - the recording limit has been exceeded
- 2053 - a bad spoken name is being reported
- 2054 - timeout on long silence

Impact: The message being sent is discarded. The impact will depend on which message is discarded and which application is executing. The impact will range from none to losing the use of that DSP port.

2091 Minor Error Action 13

Cause: A VPIO task was unable to communicate with an application.

Impact: The message being sent is discarded. The impact will depend on which message is discarded and which application is executing. The impact will range from none to losing the use of that DSP port.

2099 Minor Error Action 14

Cause: Occasionally, the Voice Handler produces SEERs for errors that it found but did not create. The Voice Handler places these SEERs in the class: vh_NonVHError. A non-VH error has a major or minor priority. Some non-VH errors, messages and priorities are as follows:

1. File system errors while opening a voice record
   Message:OpenV, (non-VH error)
   Priority:Major

2. File system errors while finishing a recording
   Message:FiniV, (non-VH error)
   Priority:Major
3. Third party read errors during playback
   Message:(non-VH error): TpRead block:, (relative voice block #), (message state)
   Priority:Major
4. Third party write errors while recording
   Message:(non-VH error):DoWBuf:VBlock is lost:, (write buffer address), (message state)
   Priority:Major
5. Communication failed while sending file system errors to voice application
   Message:(non-VH error):SndSuErr:TskErr:, (Tasking Error)
   Priority:Minor
6. Aborted recording due to a file system error
   Message:(non-VH error): RTID (VPH remote task ID in hexadecimal): (procedure or reason): OprCode:, (operation), (message state)
   Priority:Major

Impact:

Case 1. VH rejects request to open record. The voice application determines the action to take.

Case 2. The recording being finished may not be saved correctly on disk. The voice application will act appropriately.

Case 3. The block to be played will not be played. Playback continues.

Case 4. The block to be recorded will not be recorded. Recording continues.

Case 5. To the Voice Handler the impact is minor, so it takes no corrective action.

Case 6. The system will try to save the recording up to the point at which the abort occurred.

Actions

Action 1 Disable then reenable the corresponding Voice-Port.

Action 2 Run Bootup diagnostics to determine if there are processor memory problems, and where appropriate, save the recording and contact your Nortel Networks support organization.

Action 3 If the error persists, do the following: disable the card with the affected port, run diagnostics on that card, and reenable the card.

Action 4 Check if there are any VPH SEERs occurring (class 24). If there are, there may be a voice port problem. Disable and reenable the port defined in the VPH SEERs in the HWLOC field. If these errors persist, contact your Nortel Networks support organization.

Action 5 Run voice card diagnostics. Do a memory test and login to any mailbox to see if the prompt files are corrupted. If these errors persist, contact your Nortel Networks support organization.

Action 6 Disable then reenable the corresponding Voice-Port.

Action 7 If this error persists with a particular recording, save the recording and contact your Nortel Networks support organization.

Action 8 Reinstall prompt files.

Action 9 If the error occurs while the disks are being audited, then the problem is transient and can be ignored. Otherwise, disable the voice card where the affected voice port resides and perform off-line diagnostics on the card. If this error persists, contact your Nortel Networks support organization.

Action 10 Disable the voice card where the affected voice port resides and perform off-line diagnostics on the card. If this error persists, contact your Nortel Networks support organization.

Action 11 Contact your Nortel Networks support organization

Action 12 Find out why the bad spoken name exists and if any action has to be taken. For example, an old voice mail message may contain a reference to a spoken name of a person who has left the company and whose spoken name has been removed. Look up the return code for specific information.

Action 13 If further problems are observed with that voice port, disable the port indicated in the SEER's HWLOC and reenable it. If the problem is not corrected, reboot the system and check the result of the startup diagnostics. If the problem persists, contact your Nortel Networks support organization.

Action 14 Check the corresponding file system error code and surrounding SEERs. If these errors persist, save the recording and contact your Nortel Networks support organization.

Action 15 If problem persists, contact your Nortel Networks support organization.

Voice Prompt (VX)

Introduction

The Voice Prompt (VX) program is called by the voice application to play prompts. Voice Prompt errors can

- prevent playing of voice prompts if an error occurs at the initialization level
- prevent playback or cause partial playback of a particular prompt
- cause unpredictable results if the software requires a prompt to finish playback and execute next step

A class 21 SEER contains

- lower level return code, such as a DD return code
- template ID of the prompt (if relevant). This ID is printed in DECIMAL

Reports

2101 Minor Error Action 1

Cause: While a voice application was providing input to a voice prompt template, one of the following things happened:

1. If the text says, “TransPrompt: Input to variable field not found” N1, N2, where N1 is the field number, and N2 is the ID of the prompt being played, a voice prompt template did not receive variable input from a voice application.
2. If the text says, “TransPrompt: Input to spoken name field not found” N1, where N1 is the ID of the prompt being played, a voice template did not receive a spoken name as input from a voice application.

Impact: The prompt will probably not be played or it will be partially played. A non-zero VX return code will be returned to the application.

2102 Minor Error Action 2

Cause: A variable field received data that was out of the correct range for one of the following reasons:

1. If the text says, “TransField: Maximum length exceeded for compound data”, N1, N2, where N1 is the maximum length and N2 is the ID of the prompt being played,

a voice prompt template received compound data from a voice application that exceeded the maximum length.

2. IF the text says, “TransField: Data out-of-range. Elmnt Indx and template”, N1, N2, where N1 is the element index and N2 is the Template ID, a voice prompt template received data from a voice application that was out of range.

Impact: The prompt will probably not be played or it will be partially played. A non-zero VX return code will be returned to the application.

2103 Minor Error Action 3

Cause: If the text says, “VX_Play*n*Fld: Template ID is out-of-range”, N1, N2, where N1 is the highest template ID, and N2 is the ID of the prompt requested to be played, the template N2 ID is out of range.

Impact: No prompt can be played. A non-zero return code will be returned to the application.

2104 Minor Error Action 4

Cause: One of the following problems was encountered during initialization of the voice prompt files:

1. If the text says “vx_init: Failed to initialize prompt files” N1, where N1 is the return code from the filing system referring to the reason for failure, the Voice Handler failed to initialize the prompt files.
2. If the text says “vx_init: Unable to link FCTabFCB” N1, where N1 is a return code from the filing system referring to the reason for failure, the field component could not be linked.
3. If the text says “vx_init: Cannot find first field component record” N1, where N1 is a return code from the filing system referring to the reason for failure, the template FCBs could not be linked.
4. If the text says “vx_init: Unable to read in template and segment totals” N1, where N1 is a return code from the filing system referring to the reason for failure, the first voice segment record could not be found.
5. If the text says “vx_init: Unable to link TemplFCB” N1, where N1 is a return code from the filing system referring to the reason for failure, the first template definition record could not be found.
6. If the text says “Unable to find first voice segment record” N1, where N1 is a return code from the filing system referring to the reason for failure, the first field component record could not be found.
7. If the text says “Unable to index to last voice segment record” N1, where N1 is a return code from the filing system referring to the reason for failure, the segment and template totals could not be read.
8. If the text says “Unable to find first template definition record” N1, where N1 is a return code from the filing system referring to the reason for failure, the last voice segment record could not be indexed.

The return code isolates the cause.

Impact: The prompt files will not be initialized, and the voice application will not operate. Also, previously linked files will be un-linked.

2105 Minor Error Action 4

Cause: During the translation of a field of the voice prompt template into one or more voice prompt segments, one of two things happened:

1. If the text says “Simple field max. length exceeded after conversion”, the maximum length for a simple field was exceeded, after being converted from a compound field.
2. If the text says “Unable to read in next field component record”, a field component record could not be read as indicated by the SEER text. Extra data following the SEER is the prompt ID that is causing the problem. This gives the prompt that has the problem.

The return code isolates the cause.

Impact: The prompt probably will not be played or it might be partially played. A non-zero VX return code will be returned to the application.

2106 Minor Error Action 4

Cause: During the translation of a voice prompt template into a sequence of one or more voice prompt segments, one of the following things happened:

1. If the text says “TransPrompt: Unable to link Template FCB” N1, N2, where N1 is a return code from the file system referring to the reason for failure, and N2 is the ID of the prompt being played, a template FCB could not be linked.
2. If the text says “Unable to index to template definition record,” N1, N2, where N1 is a return code from the file system referring to the reason for failure, and N2 is the ID of the prompt being played, a required template definition record could not be indexed.
3. If the text says “Unable to read in template definition record” N1, N2, where N1 is the return code from the file system referring to the reason for failure, and N2 is the ID of the prompt being played, the required template definition record could not be read.
4. If the text says “TransPrompt: Unable to read in next field component record” N1, N2, where N1 is the return code from the file system referring to the reason for failure, and N2 is the ID of the prompt being played, the field component record could not be read.

The return code isolates the cause.

Impact: The prompt will not be played at all.

2108 Minor Error Action 4

Cause: When the message, “Transfield: Invalid data in OutofRange field of field component record”, N1, N2 appears, it indicates that bad data was found in a field component record. N1 is the value of the invalid data, and N2 is the ID of the prompt being played.

Impact: The prompt will probably not be played or it might be partially played. A non-zero VX return code will be returned to the application.

2109 Minor Error Action 4

Cause: When the message, “TransPrompt: Invalid data in Fieldtype field of template”, N1, N2 appears, bad data was found in a template definition record. N1 is the value of the invalid data, and N2 is the ID of the prompt being played.

Impact: The prompt will probably not be played or it might be partially played. A non-zero VX return code will be returned to the application.

2110 Critical Error Action 5

Cause: When the message, “vx_int: No memory for PCB” appears, there was a failure to allocate a prompt control block from the heap passed in by the application.

Impact: The prompt files will not be initialized, and the voice application will not operate.

Actions

Action 1 Run bootup diagnostics, and try disabling and re-enabling the port defined in the HWLOC field of the SEER. Do a memory test, and try disabling and re-enabling the channel. Contact your Nortel Networks support organization if the problem persists.

Action 2 Run bootup diagnostics; memory may be bad. Check if the system “clock” has been setup in the system. Contact your Nortel Networks support organization if the problem persists.

Action 3 Run bootup diagnostics; memory may be bad. Contact your Nortel Networks support organization if the problem persists.

Action 4 Log in to a mailbox to see if the prompt file is corrupted. Run diagnostics on the hard disk of the volume holding the prompt file VS2 to determine if there is any data corruption. Look up the second return code, if there is one, for more information. Contact your Nortel Networks support organization if the problem persists.

Action 5 Disable and re-enable the corresponding T1 channel. Run bootup diagnostics to test memory. If the problem persists, contact your Nortel Networks support organization.

Voice Messaging (VM)

Introduction

Voice Messaging (VM) receives the user's voice messaging commands and executes them by calling the Voice Handler and Voice Processor.

Most VM errors affect only one call or user's session (unless the error is a symptom of a hardware problem). For most serious problems diagnosed by VM, the call is routed to the system attendant DN and VM releases memory and files for the next call.

A class 22 SEER contains

- a lower level return code
- the user's mailbox number or DN (if relevant). If a mailbox included in a SEER is the user's mailbox, and this is an NMS system, (that is, the login user or the recipient in a call answering session), then the mailbox number is output in the administrator's (the prime) context. Thus, since the administrator is the one looking at the SEERs, the SEER will be more meaningful to him or her.

Class 22 SEERs are often preceded by a related SEER which has the same mailbox number or the same return code.

In addition, some Class 22 SEERs may be followed by one or two related SEERs which are used by Nortel Networks support organizations to trace problems. These debugging SEERs are normally not printed, but are stored in the SEER history file, and can be viewed/printed using the MMI or the SE_UTIL utility. (To enable printing of these SEERs, the SEER filter level must be set to 'DEBUG' using the SE_UTIL utility.) These debugging SEERs are intended for use by the Nortel Networks support organization only.

Format of VM debugging SEERS:

If the text of any Class 22 SEER begins with the '+' character, this means that additional related debugging SEERs will be written into the SEER file. These SEERs will have the same SEER class, number, and return code as the VM SEER containing the '+' character, and are printed *after* the original VM SEER. The first debug SEER is 'VM Cmds' and can be used by the Nortel Networks support organization to determine the last 20 commands issued by the user. The

second debug SEER is ‘VM Procs’ and can be used to determine the software execution path (this second debugging SEER is only printed if the Debug level is higher than zero, set using the AD_UTIL).

Reports

2201 Minor Error Case1-7, 9, 10Action 1
Case 8Action 2

Cause: VM encountered a problem while playing.

1. If the text says “Create Acknowledgement”, VM failed to create and send an acknowledgement.
2. If the text says “Playing NDN/ACK prompt”, VM failed to open or play messages correctly.
3. If the text says “Playing NDN/ACK attachment” or “Playing attachment” or “Playing attachment prompt”, VM failed to open or play attachments correctly.
4. If the text says “Playing voice from beginning” or “Playing start prompt”, VM failed to open or play messages correctly.
5. If the text says “Spoken name”, VM tried to play a corrupted, bad or deleted spoken name. This SEER prints the mailbox number of the user with the bad spoken name.
6. If the text says “Play Prompt called with prompt files released”, VM tried to play a prompt before the prompt files were initialized or after they were released.
7. If the text says “Trying to skip forward in msg”, VM encountered an error when the user skipped forward while playing a message. There are two possible causes: i) an attachment on the message could not be opened, or ii) the lower-level VH software could not perform the PlaySkip command.
8. If the text says “PlayPrompt problems”, VM was informed of an error by the lower level VX software while trying to play a system prompt (not user voice). A possible cause of this problem is corrupt data in a message header or user’s profile, or an invalid time-stamp. A related class 21 SEER is printed just before this, containing the prompt ID that it was attempting to play.
9. If the text says “pspply SecGrt problems” or “Ply DefGrt problems” then VM failed to properly play a call-answering greeting for a hotel guest mailbox.
10. If the text say “Playing voice above normal speed from beginning”, then VM failed to open or play messages correctly while on speed-up playback mode.

The return code isolates the cause.

Impact:

Case 1.	The recipient of the original message will not hear any error prompts.
Case 2-4, 10.	The user hears the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.”
Case 5.	The system recovers and plays the mailbox number instead of the spoken name. The owner of the mailbox should re-record the personal verification.

Case 6. No prompt is played.

Case 7. The user hears the prompt “Your command cannot be completed at this time...”, and the skip forward command will fail. The skip forward command will not send a message delivery acknowledgement in this error condition.

Case 8, 9. The prompt will not be played, or will be partially played, or will be played as silence. In some cases, the software depends on successful playback of a prompt. In these cases the user’s session will appear to be inactive (i.e., the session may appear “hung”).

2204 Minor Error

Case 1	Action 1
Case 2	Action 3

Cause:

1. VM encountered a problem while trying to start recording at the current position of a previously created message. The return code isolates the cause.
2. If the text says “Failed to commit message” then VM had a problem doing incremental saves on a large message.

Impact:

1. The user will hear the error prompt “Your command cannot be completed atthis time. Please try again later or contact your administrator”.
2. Recording will be stopped and the user will hear an error prompt. If it is in a call answering session the call will be disconnected. The message may or may not exist as recorded or it may be corrupt. In addition, the user volume on the disk may reach a safety limit, which will prevent call answering from working. If this happens, the problem will clear automatically during the overnight audits.

2206 Minor Error

Case 1	Action 1
Case 2	Action 4
Case 3	Action 5
Case 4	Action 6

Cause: VM encountered a problem while trying to reply to the sender of an incoming message. The return code isolates the cause.

Impact: The user will hear one of four prompts:

1. “Your command cannot be completed at this time. Please try again later or contact your administrator.”
2. “Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance.”
3. “The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance.”
4. “That number cannot be reached from this service. Command canceled.”

2207 Minor Error Action 7

Cause: VM had a problem playing the sent date/time of a message when the user attempted the "play envelope" command.

Impact: The sent time in the message envelope will not be played.

2208 Minor Error

Case 1	Action 8
Case 2	Action 4
Case 3	Action 5

Cause:
1. If the text says "Forwarding Msg", VM failed to forward a message.
2. If the text says "Closing original", VM failed to close the original message that was being forwarded.
3. If the text says "Reopening Profile", VM failed to reopen the user's profile during a forward operation.

The return code isolates the cause.

Impact: The user will hear one of three prompts. (Please note, the numbered cause may not be related to the numbered impact):
1. "Your command cannot be completed at this time. Please try again later or contact your administrator."
2. "Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance."
3. "The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance."

2209 Minor Error

Case 1	Action 1
Case 2	Action 4
Case 3	Action 5
Case 4	Action 6

Cause: VM had a problem while trying to reply to all of the recipients and the sender of an incoming message. The return code isolates the cause.

Impact: The user will hear one of four prompts:
1. "Your command cannot be completed at this time. Please try again later or contact your administrator."
2. "Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance."
3. "The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance."

4. “That number cannot be reached from this service. Command canceled.”

2210 Minor Error

Case 1, 5, 7, 8	Action 9
Case 2, 3	Action 10
Case 4	Action 4
Case 6	Action 11

Cause: 1. VM failed to gain access to, or validate mailbox numbers or distribution lists while addressing during compose. The return code isolates the cause.

2. If the text says “Failure checking DNU restriction/permission list,” then the user attempted to compose a message to a non-user but the system was unable to check the dialing restriction/permission list to tell if the user is allowed to use that number.

3. “Failure checking AMIS restriction/permission list”, the user attempted to compose a message to an open network user but the system was unable to check the dialing restriction/permission list to tell if the user is allowed to use that system access number.

4. “Compose Failed, Mailbox is Full”, the user’s mailbox has reached or exceeded its voice storage limit.

5. “Failed to compose 1st address” or “Failed to compose address”, VM failed to gain access to, or validate mailbox numbers or distribution lists while addressing during compose. The return code isolates the cause.

6. “Error while composing AMIS address as 1st entry in compose & send” or “Error while composing AMIS address in compose & send”, VM had problems addressing an open network user during compose.

7. “Error occurred while adding PDL entries during compose”, VM had problems addressing a PDL during compose.

8. “Failed to cancel network-wide/local NMS location/remote/unknown broadcast number”, VM could not cancel a broadcast address as the last entry in the message recipient list.

Impact:

Case 1, 5, 7, 8	The user will hear the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator,” and will not be able to compose to that user.
Case 2, 3	The user will hear the prompt “That number can not be reached from this service” and will not be able to compose to that nonuser.
Case 4.	The user will hear the prompt “Your mailbox is full. You cannot crate new messages until some messages are deleted. Please contact your administrator for assistance”
Case 6.	The user will hear the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator,” and will not be able to compose to that user, and the open network user will not be added to the list of recipients to receive the composed message.

2212	Minor Error	Case 1	Action 12
		Case 2	Action 13

Cause:

1. If the text says “MTA error”, VM failed to initialize the Message Transfer Agent (MTA) or failed to set the send time in the message header.
2. If the text says “Adding compose message”, VM failed to add a new message to the cabinet or failed to update it.

The return code isolates the cause.

Impact: In both cases, the user will hear the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.”

2213	Minor Error	Case1, 7, 9-13, 15, 27	Action 1
		Case 2	Action 4
		Case 3-4, 28	Action 5
		Case 5	Action 6
		Case 6, 8	Action 7
		Case 16	Action 14
		Case 14	Action 8
		Case 17, 32-42	Action 15
		Case 18-22, 24-25, 29-31, 43-44	Action 16
		Case 23	Action 93
		Case 26	Action 17

Cause: VM encountered an error while a user was logging in. The error occurred during the initial login or after the user issued the login command. The return code isolates the cause. If the text says:

1. “NewVar of UserInfo”, VM failed to acquire memory space for a new variable called “UserInfo”.
2. “Opening cabinet”, VM failed to open the user’s cabinet.
3. “Finding Profile”, VM failed to find the user’s personal profile.
4. “Opening Profile”, VM failed to open the user’s personal profile.
5. “Logoff: can’t drChgEntry”, VM failed to update the organizational directory if a user’s password had expired.
6. “Multi-log in check”, VM encountered an error while checking to see if the user is already logged on to VM.
7. “Logoff: can’t gtiLogout”, VM failed to log off from GTI under these conditions: the user was logged in, had used Call Sender and then tried the login command.
8. “Failed to associate client”, VM failed to register the user as currently using VM.
9. “Logoff: can’t vhCloseV”, VM failed to close the voice prompts.
10. “Logoff: can’t mFlushM”, VM failed to update or close the user’s cabinet.
11. “Logoff: can’t cmCloseM”, VM failed to update or close the user’s cabinet.
12. “Logoff: can’t cmCloseC”, VM failed to update or close the user’s cabinet.

13. “Logoff: can’t ClosePrf”, VM failed to close the personal profile while logging in from VM.
14. “Opening first message”, VM failed in the procedure “cm_MenuToFIR” which finds and opens the first message.
15. “Check/Playing summary”, VM failed to inspect the user who was logging in.
16. “Password Violation”, VM discovered someone consecutively entering more than the maximum allowed number of incorrect passwords. The affected mailbox and the calling DN, if known, are given and the mailbox is disabled.
17. “Cannot read MWI for guest”, VM had difficulty determining whether non-voice messages exist.
18. “PCO Entry locked for too long”, someone is already accessing that post checkout mailbox or there is a problem with the post checkout mailbox.
19. “Error Opening PCO Cabinet”, VM failed to open the post checkout cabinet.
20. “Opening PCO Menu”, VM failed to open the post checkout cabinet menu.
21. “Opening first PCO message”, there were problems opening the user’s first message from the post checkout cabinet.
22. “Couldn’t change mode on ppAdminRec”, there were problems with the user’s personal profile.
23. “Error reading personal prof hosp rec”, the related user’s hospitality record could not be read.
24. “Could not update HAS Logged In”, there were problems with the user’s personal profile.
25. “Could not change ppAdminRec to rc mode, VM failed to read the user’s personal profile.
26. “Could not update calling context” DN Update, VM failed to retrieve the calling context from the vsh.
27. “Problem in LoginFinish”, “Problem in LoginCheck”, or “Problem in PlyLoginStuff” there has been a problem in completing login and a password has been entered (or autologin).
28. “Cannot read component phone number record” or “Cannot read component time period”, then an error was encountered while checking remote notification being turned off externally for a mailbox.
29. “PCO cmCounters”, the number of new messages could not be determined in a hospitality post-checkout session.
30. “Error in PCO multimatch retrieval” or “Could not retrieve from HAS”, there were problems finding the guest’s mailbox during a post-checkout session.
31. “Logoff: can’t Gst Cntrs”, VM failed to read the hospitality record in the user’s personal profile.
32. “Logoff: can’t Disconnect”, VM failed to disconnect the call.
33. “Logoff: can’t cmChgMode”, VM failed to change the mode of the user’s cabinet.
34. “Logoff: can’t rnNLogOut”, VM failed to talk to OCS regarding RN.

35. “Logoff: can’t ChgMode RC”, VM failed to re-open user’s cabinet.
36. “Logoff: can’t ChgMode MWI”, VM failed to change the mode of the user’s personal profile.
37. “Logoff: can’t ReadMWI”, VM failed to read the non-voice message counters.
38. “Logoff: can’t UpdateMWI”, VM failed to update the user’s MWI.
39. “Logoff: can’t GetTimeTerm”, VM failed to retrieve a valid time from the system.
40. “Logoff: can’t ocCallResult”, VM failed to complete an outcall (RN or DNU).
41. “Logoff: can’t MWI PLH_VC”, VM failed to talk to the PMS link handler.
42. “Logoff: can’t VCI PLH_VC”, VM failed to talk to the PMS link handler.
43. “Logoff: can’t cmCounters”, VM failed to read the message counter recorded in the user’s personal profile.
44. “Failure checking CLID list”, VM had problems checking if the number the user is logging from matches one of the requested CLIDs to be monitored.

Impact:

Case 1-8.	The user will not be allowed to log in.
Case 9-12.	The user will be allowed to log in. New messages or changes to existing messages may not be reflected the next time the user logs into the mailbox.
Case 13-15.	The user will not be allowed to log in.
Case 16.	The user will not be allowed to log in until the administrator re-enables the user’s mailbox.
Case 17.	The user will be able to log in, but the MWI may not be correct.
Case 18-21.	The user will not be able to log in to the post checkout cabinet.
Case 22	The user may not be able to log in.
Case 23.	The session may not be continued.
Case 24.	The user may always have the introductory greeting played when logging in.
Case 25.	The incident is minor and there will probably be no effect.
Case 26.	If the error occurs before the user has logged in, the login prompts may not come out in the language configured for the phone, and autologin may not work. Otherwise, there will probably be no noticeable impact.
Case 27.	The user is given an error prompt and is allowed to try logging in again.
Case 28.	The user will not be notified that his remote notification had been turned off externally (however, this probably indicates that there will be further problems with remote notification).
Case 29, 30.	The user may not be able to log in.
Case 31, 43	The user may not be able to log in, or the message lamp for the user may not be set correctly. It will be corrected on a subsequent login session if the same error does not recur.
Case 32.	The voice channel may be hung for a while. It will recover by VSS reload automatically.

Case 33.	The message lamp for the user may not be set correctly. It will be corrected on a subsequent login session if the same error does not recur.
Case 34.	See Case 28.
Cases 35-38.	The message lamp for the user may not be set correctly. It will be corrected on a subsequent login session if the same error does not recur.
Cases 39, 40.	Outcalling session may end improperly. This may result in a retry.
Cases 41, 42.	Voice count PMSI messages may not be returned correctly to the PMS system.
Case 44.	Logins from specified CLIDs to be monitored will not be detected.

2214 Minor Error Action 19

Cause: VM encountered a greeting problem. The text or return code indicates the cause. If the text says:

1. "Opening", VM encountered an error while gaining access to a system, custom or personal greeting.
2. "Opening System Greeting" or "Opening Custom Greeting", VM encountered an error while gaining access to a system or custom greeting.
3. "Update greeting" or "Update Custom Greeting", VM encountered an error while accessing, reading, or writing either a system, custom or personal greeting.
4. "Updating System Greeting" or "Updating Custom Greeting", VM encountered an error while gaining access to, reading, or writing a system or custom greeting.
5. "Delete greeting", VM failed to delete either a system, custom or personal greeting.
6. "Delete system greeting" or "Delete Custom Greeting", VM failed to delete a system or custom greeting.
7. "Error getting correct parser table", the incorrect parser tables are loaded by the vss.pd. The table numbers are: 0—generic meridian mail, 1—guest voice messaging, 3—post checkout and 4—VMUIF call answering.
8. "Checking TAG and its expiry", VM encountered an error while gaining access to the user's Temporary Absence Greeting (TAG) or checking the TAG's expiry date.
9. "Reading Voice Rec", VM encountered an error while reading the user's TAG.

Impact:	Cases 1-4.	The greeting will not be altered.
	Cases 5-6.	The user will hear the error prompt "Your command cannot be completed at this time. Please try again later or contact your administrator."
	Case 7.	The service will not be available.
	Case 8.	If the TAG has expired, the TAG may not be deleted, or the TAG's expiry date may not be cleared.
	Case 9.	When accessing, recording or modifying an external, internal or system greeting, the user will not be notified if the TAG has been previously recorded, and if the TAG has expired, the TAG will not be deleted.

2215 Minor Error Action 20

Cause: VM had trouble disconnecting the user's call to Meridian Mail.

Impact: In all cases where this could occur, the system will appear to the user to be dead. Since the prompt files are not open, VM cannot play out an error message.

2217 Minor Error

Case1, 3-11	Action 16
Case 2, 12	Action 21
Case 13-15	Action 22
Case 16	Action 23

Cause: VM encountered a Call Sender problem. The return code isolates the cause. If the text says:

1. "Unpack BillDN", VM received an error unpacking the mailbox as a DN for billing purposes.
2. "Getting phone number", VM encountered an error while finding or reading the message or network information.
3. "Failed to initiate call", VM failed to place a call.
4. "CSState, VSS Status mismatch", VM received the value of the field "GTI_Established" from the VSS during call sender.
5. "CSState, GTI_Cmd mismatch", VM received an unexpected GTI command while waiting for valid commands.
6. "VPHTid not available", VM could not locate the Taskid of the Voice Processor Handler.
7. "GTI_Login failed with rc", VM failed to log in to GTI.
8. "GTI_Login failed ", VM received a bad login result from GTI.
9. "GTI Error", VM received an error indication from GTI while waiting for a login result or call progress.
10. "GTI Logout failed", VM received an error indication from GTI while waiting for a GTI logout result or call progress.
11. "Timeout waiting for GTI Login Result", VM timed out waiting for GTI to respond to a login request.
12. "Timeout waiting for GTI Call Progress", VM timed out waiting for call progress information from GTI after placing a call.
13. "Call Sender call not established", VM received call progress information from GTI indicating the call was not completed. The user's mailbox number will be indicated in this SEER.

14. “Phone probably not set up for call transfer/call conference or COS restriction” (and if the return code is 9 and there is a related SEER with the text “Reason not established” and return code 9), the DN specified in the first SEER may not have transfer capability or it is already involved in a conference circuit. But if the return code of the related SEER is 8, the DN specified in the related SEER is forwarding to a non-existent DN. In this specific latter case, the SEER code is Type: Admin. and Severity: Minor.
    COS restrictions refer to class of service (Meridian 1) or translations (DMS) on the switch that affect transfer capability. This is not related to Meridian Mail class of service.
15. “Reason not estab & DN called”, VM received call progress information from GTI indicating the call was not completed. The target phone number is indicated in the SEER.
16. “Could not update DN for Call Sender”, VM was unable to get the DN type and number of the calling number on a DN Update (that is, conference, someone hangs up, and so on) from vsh.

Impact:	Case 1.	The phone number is rejected and the call is not completed.
	Cases 2, 3.	The call is not completed. The user will hear the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.”
	Case 4.	VM will ignore the error. There could be unknown side effects.
	Case 5.	VM will ignore the unexpected command. There could be other unknown side effects.
	Case 6.	If a user tried to use the “call sender” command during this session, the call will be transferred and the VM session terminated immediately.
	Case 7-8.	VM will continue to try the call but the call will be transferred and the VM session terminated.
	Cases 9-10.	For a login result, the call will be transferred and the VM session terminated immediately. For a call progress, VM already tried to place the call and will now play an error prompt. The call will fail and the user will be returned to the VM session. To hear this prompt, the user may have to use the “unhold” command to return to the VM session. If the user tries to issue another “call sender” command during this session, the call will be transferred and the VM session terminated immediately.
	Case 11.	The user will hear approximately 30 seconds of silence and then the call will be transferred and the VM session terminated immediately.

Cases 12-15. The user will hear an error prompt. To hear this prompt the user may have to "unhold" the VM session. If the user attempts another call sender during this session, the call will be transferred and the VM session terminated immediately.

Case 16. User may not be able to perform Call Sender function during session.

2218 Minor Error Action 24

Cause: VM could not revert a caller to the System Attendant because VM encountered initialization problems.

Impact: The user's call to VM will be answered but it will be hung up. No prompt will be played because the prompt files were not opened during initialization.

2221 Minor Error Action 25

Cause: VM encountered an error while gaining access to, reading, or writing the password information. The return code isolates the cause.

Impact: The user's password will not be updated. The user will hear the error prompt "Your command cannot be completed at this time. Please try again later or contact your administrator."

2222	Minor Error	Case1, 2a.	Action 26
		Case 2b.	Action 4
		Case 2c	Action 27

Cause: VM encountered a spoken name problem.

1. If the text says "Committing spoken name", VM had a problem committing the spoken name.
2. If the text says "Opening a Spoken Name", VM failed to initialize or open the file for the spoken name.

The return code isolates the cause.

Impact: Case 1. Any changes to the spoken name may not take effect.

Case 2. The user will hear one of three prompts:

a. "Your command cannot be completed at this time. Please try again later or contact your administrator."

b. "Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance".

c. "The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance."

2223	Minor Error	Case1, 2a.	Action 82
		Case 2b.	Action 83
		Case 2c	Action 84

Cause: VM encountered a problem with a Personal Distribution List (PDL).

The return code isolates the cause.

Case 1. If the text says “Error while closing PDL profile”, VM failed to close a PDL profile.

Case 2. VM failed to read the size of a PDL. If the test says:

a. “Error while reading PDL size during search for duplicates in PDL”, the problem occurred while checking if an address had previously been entered in the PDL.

b. “Error while getting size of PDL in PSPPDLNum”, the problem occurred while gaining access to the PDL

c. “Error while getting PDL size in PSPPDLSOL”, the problem occurred when playing the PDL

d. “Error while getting PDL size during PDL clean-up”, the problem occurred when the user exited the PDL feature or addressed a PDL during message compose.

3. VM could not read an address in a PDL. If the text says:

“Error while reading PDL entries during search for duplicates in PDL”, the problem occurred while checking if the address had previously been entered in the PDL.

“Error while reading PDL from temporary file in PSPPDLEOL”, the problem occurred when playing the PDL.

“Failed to play network-wide/local NMS location/remote/unknown broadcast number”, then the problem occurred while playing a broadcast address in the PDL, or while finding and deleting a broadcast address from the PDL.

4. VM could not gain access to a PDL, if the test says one of the following:

“Error while creating temporary file for PDL in PSPPDLNum”

“Error while copying PDL record from profile in PSPPDLNum”

“Error while finding PDL record in PSPPDLNum”

“Error while creating temporary PDL record in PSPPDLNum”

“Error while finding PDL record during PDL clean-up”, the problem occurred when the user exited the PDL feature or addressed a PDL during message compose.

5. VM had trouble translating an address in a PDL. If the text says:

   "Error while translating PDL entry in PSPPDLEOL", the problem occurred when playing the PDL

   "Error while cancelling last PDL entry from nt_AdrToDig", the problem occurred when finding and deleting an existing address in the list

   "Error during deletion in PDL Find Address from nt_AdrToDig", the problem occurred when finding and deleting an existing address in the list

   "Error while translating address in PDL help", the problem occurred while playing the help prompt during a find and add, or find and delete operation

   "Error while translating invalid PDL address", the problem occurred while playing an invalid address in a PDL during message compose

6. VM had trouble validating an address in a PDL. If the text says:

   "Error while validating PDL entry in PSPPDLEOL", the problem occurred when playing the PDL

   "Error while validating first PDL entry in PSPPDL1Ent" or "Error while validating PDL entry in PSPPDL2Ent", the problem occurred while composing or adding addresses to the PDL

   "Error while validating PDL entry in Find Address", the problem occurred when finding an address in the PDL.

7. VM failed to automatically delete an invalid address in a PDL. If the text says:

   "Error while deleting bad PDL entry during PDL play", the problem occurred when playing the PDL

   "Error while deleting bad PDL entries during PDL clean-up", the problem occurred when the user addressed a PDL during compose

8. VM failed to add a valid address to the address list of a PDL. If the test says:

   "Error while composing first PDL entry in PSPPDL1Ent" or "Error while composing PDL entry in PSPPDL2Ent", the problem occurred while composing or adding addresses to the PDL

   "Error while adding entry via name addressing in PDL Find Address" or "Error while adding entry in PDL Find Address", the problem occurred while finding and adding an unfound address to the PDL

9. If the text says "Error while reading PDL from temporary file in PSPPDL2Ent", VM could not read the last entry in a PDL while cancelling the last address in the list

10. VM could not delete the last entry in a PDL if the text says "Error while deleting address from PDL in PSPPDL2Ent", the problem occurred when cancelling the last address in the list.

If the text says “Failed to cancel network-wide/local NMS location/remote/ network broadcast number”, the problem occurred when cancelling a broadcast address as the last address in the list.

11. VM had trouble checking if a valid address had previously been entered in a PDL. If the text says:

    “Error while searching for duplicate PDL entries in PSPPDL2Ent”, the problem occurred while composing or adding addresses to the PDL

    “Error while searching for duplicate PDL entries in Find Address”, the problem occurred when finding an address in the PDL

12. If the text says, “Error while deleting entry in PDL Find Address”, VM had trouble deleting an address in a PDL while finding and deleting an existing address in the list.
13. If the text says, “Error while cleaning up PDL from dd_ChgMode”, VM was unable to change the mode of the user’s personal profile when the user exited the PDL feature or addressed a PDL during message compose.
14. VM was unable to delete the previous PDL record in the user’s personal profile. If the text says:

    “Error while cleaning up PDL from dd_DelRec”, the problem occurred when the user existed the PDL feature or addressed a PDL during message compose

    “Error while deleting PDL record during PDL admin session”, the problem occurred when the user requested to delete the list

15. If the text says, “Error while finding end of profile during PDL clean-up”, VM was unable to read the user’s personal profile.
16. If the text says, “Error while finding end of profile during PDL clean-up”, VM was unable to read the user’s personal profile.
17. If the text say, “Error while re-creating PDL record during PDL admin session”, VM could not continue to perform PDL operations after deleting a list during a PDL session.
18. If the text says, “Error while reading invalid PDL entry” or “Error while playing invalid PDL entry”, VM could not lay invalid addresses in a PDL during message compose.
19. If the text says, “Error while composing AMIS address as 1st entry in PDL” or “Error while composing AMIS address in PDL”, VM failed to add an open network user to the address list of a PDL.
20. If the text says, “Error while finding AMIS address in PDL”, VM has trouble checking if an open network user had previously been entered in a PDL when finding an address in the PDL.

Impact: Case 1 The user's changes to the PDL may not take effect. The user command cannot be completed at this time. A heap loss may occur after the user disconnects, and the channel will reload.

Case 2 In all other cases, the user's changes to the PDL will not take effect. The user will hear one of three prompts:

a. "Your command cannot be completed at this time. Please try again later or contact your administrator."

b. "Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance".

c. "The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance."

2225 Minor Error Case1 Action 29
Case 2-3 Action 30

Cause:
1. VM failed to create a new message. The return code isolates the cause.
2. If the text says "Open msg for DNU ack", then the original message sent to a non-user could not be re-opened to get the address for acknowledgement.
3. If the text says "Close msg for DNU ack", then the original message sent to a non-user could not be closed after sending the acknowledgement.

Impact: Case 1. The user may encounter more problems performing further operations on the message. A call answering or express message may not have been created in the user's mailbox.

Case 2. The DNU message will not have an acknowledgement.

Case 3. A heap loss may be detected at task completion, and the channel will then reload. The DNU acknowledgement will still be sent correctly.

2226 Minor Error Action 31

Cause:
1. VM encountered an error while adding a message to the user's cabinet, as indicated by the SEER text.
2. If the text says "Adding new Arrival" or "New Arrival", VM encountered an error while adding a message to the user's message wait.
3. If the text says "AddMsg failed in rnMsgArrival" then there was a failure telling the OCS that a message had been deposited for someone by VM.

The return code isolates the cause.

Impact: Cases 1-2. The messages will be lost.

Case 3. The recipient will not be "remote-notified" of the message.

2227 Minor Error

Case1	Action 32
Case 2	Action 33
Case 3	Action 34
Case 4, 6	No Action
Case 5	Action 35

Cause: VM encountered an error while gaining access to, opening, or reading the message. The return code isolates the cause.

Impact: The user will hear one of six error prompts:

1. "Your command cannot be completed at this time. Please try again later or contact your administrator"
2. "Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance".
3. "The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance."
4. If the text says "Inconsistent Times in Msg" then there is no impact whatsoever. This SEER can be ignored in all cases; it should not have been printed.
5. If the text says 'Late Msg' or 'More Info', then a user has received a message that was sent more than 10 minutes ago.
6. If the text says "Deleted IP Msg in Guest Mbx", then an acknowledgement or nondelivery notification was found in a guest mailbox. Hospitality voice messaging does not handle these types of message. The message is deleted with no impact to the user.

2228 Minor Error Action 36

Cause: VM encountered an error while entering or committing the cabinet, or while updating the menu. The return code isolates the cause.

Impact: Changes, if any, may not take effect.

2229 Minor Error

Case1	Action 36
Case 2	Action 37

Cause:

1. VM encountered an error while updating the menu.
2. VM encountered an error while gaining access to, or reading the personal profile, or while trying to turn off the message waiting indicator (MWI).

The return code isolates the cause.

Impact:

Case 1. Any changes to the message may not be reflected the next time the user logs in.

Case 2. The MWI may be set incorrectly.

2230 Minor Error Action 36

Cause: VM could not close a message. The return code isolates the cause.

Impact: The user may encounter more problems performing further operations on that message.

2231 Minor Error Action 36

Cause: VM was unable to update a user's cabinet to reflect the deletion of a message.

1. If the text says "Opening Msg in DelAll", the message could not be opened for deletion/restoration during a request to delete messages.
2. If the text says "Updating Msg in DelAll", the message could not be marked as deleted/restored during a request to delete messages.

Impact: The message may not be deleted/restored.

2232 Minor/Critical Error

Case1, 5-9, 13-15, 21	Action 16
Case 2	Action 38
Case 3	Action 39
Case 4	Action 40
Case 10, 24	Action 41
Case 11	Action 42
Case 12	Action 43
Case 16,17	Action 44
Case 18	Action 45
Case 19	Action 46
Case 20	Action 49
Case 22	Action 47
Case 23	Action 91

Cause: VM was unable to acquire sufficient initial resources to begin a session. The text message indicates the cause. The return code isolates the cause. If the text says:

1. "Switching services: CA—VM", the user tried to log in from a call answering or express messaging session and VM encountered a problem trying to switch to a voice messaging service.
2. "New prompt files switch", VM had problems resetting the language of the system prompt files.
3. "Prompt files for boxnumber", VM has problems resetting the language of the system prompt files.
4. "Problems in vm — Logoff called", VM had already detected a problem and failed to obtain information from the voice services shell on details of the Calling and Called DNs.

5. “Getting call info. on service transfer”, VM had a problem obtaining information from the voice service shell after the VSS had invoked it.
6. “Getting vm control block”, VM had a problem obtaining heap to store its global data record.
7. “VM: VM svc — fails to bind routines”, a bad service ID was used in the procedure that associates the VM routines with the VSS.
8. “VM: CA svc — fails to bind routines”, a bad service ID was used in the procedure that associates the VM routines with the VSS.
9. “VM: QC svc — fails to bind routines”, a bad service ID was used in the procedure that associates the VM routines with the VSS.
10. “(“phoneDN”)—>(“calledDN”)”, VM encountered a serious problem and has terminated the call.
11. “Non-user forwarded to VM”, VM encountered a problem during call-answering and has terminated the call. Either a non-user of voice messaging had his phone forwarded to the Meridian Mail DN, or there was a serious directory problem. In this particular case, the SEER code is considered Type: Admin. and Severity: Info.
12. “Could not find parser/state table”, the incorrect parser tables were loaded by vss.pd. The table numbers are: 0—generic Meridian Mail, 1—guest voice messaging, 3—post checkout and 4—VMUIF call answering.
13. “Couldn’t get ppAdmin in InitCAn”, the hospitality record in a call answering session could not be found to determine if the called DN was guest or staff.
14. “Finding user class”, the personal profile could not be read.
15. “VM:HMsvc — fails to bind routines” or “VM:PCOsvc — fails to bind routines”, either the staff and guest voice messaging or the post checkout services were not bound properly by vss.
16. “Error playing custom login”, the custom login greeting was not recorded or some other greeting error has occurred.
17. “Error playing custom intro greeting”, the intro custom greeting was not recorded or some other greeting error has occurred.
18. If the text says “Debug flag enabled — performance degradation expected”, then Nortel developers have been investigating Voice Messaging. In this particular cause, the SEER code is considered Type: Admin. and Severity: Info.
19. If the text says “Bad connection timestamp in StartVM”, then VM was unable to get the time of original connection to the service.
20. If the text says “Could not update DN for Call Sender”, VM was unable to get the DN type and number of the calling number in StartProc (VM initialization).
21. If the text says “Getting space alloc/used” then the space allocation and space used parameters could not be obtained from the VS for the mailbox indicated.
22. If the text says “Calling DN: x CalledDN: x Dev: x Type: x CustNum: x”, the call could not be answered or the initial prompt such as ‘Meridian Mail’ could not be played. Possible problems are link outages, VPIO task dead, and voice port faulty.

23. If text says “No mailbox defined for CA”, there is no mailbox defined for the call answering service.
24. If the text says “Failed to get called DN”, VM could not obtain the called number during start-up and has terminated the call.

Impact:

Case 1.	The user will hear the error prompt and will return to where the login command was entered.
Case 2.	If the previous language was different from the new language, the system will try to switch back.
Case 3.	For a Call Answering session, the session will be terminated and the system will attempt to revert to the Custom Operator or System Attendant (in that order, if they exist). For a logon session, the session will terminate.
Cases 4-10.	The user will probably not be connected with the desired service.
Case 11.	See Action 42.
Case 12.	The service will not be available.
Cases 13-14.	The session will be lost.
Case 15.	The session will be lost.
Case 16.	If the greeting is not recorded, the service continues. If some other error is occurring, the service discontinues.
Case 17.	The greeting is not played.
Case 18.	Performance degradation in all services.
Case 19.	OM reports on service usage may be incorrect and other features involving times may not work correctly (that is, timed delivery, remote notification setup).
Case 20.	User may not be able to perform Call Sender function during session.
Case 21.	Session will continue. If the user’s mailbox is full, this will not be announced during login, and call answering will not be blocked even if this feature is enabled.
Case 22.	The call is disconnected and the user will hear a partial prompt or no prompt at all.

2233 Minor Error Action 50

Cause: VM encountered a problem during the logoff sequence.

Impact: Varies widely from an improper setting of the user’s MWI to a drastic loss of program resources. The user may not notice any problems until login is tried again.

2234 Minor Error Action 37

Cause: VM encountered an error turning on the MWI while depositing a call answering message in a user’s mailbox. The return code isolates the cause.

Impact: The MWI for the target user's mailbox may be set incorrectly.

2235	Minor Error	Case1-2	Action 16
		Case 3-6	Action 51

Cause: VM is receiving error messages or unusual data from other software components. The return code isolates the cause. If the text says:

1. "StopVoice", VM requested the Voice Handler to stop the playing of voice and the Voice Handler returned an error.
2. "Received a bad digit", VM received an out of range DTMF digit (the digit was less than 1 or greater than 12).
3. "PlayPrompt Problems", VM had an error or internal time-out.
4. "Unexpected Call Progress Entry", VM had an error or internal time-out.
5. "Unexpected GTI_from Switch Entry", VM had an error or internal time-out.
6. "GTI Reference ID Mismatch", VM had an error or internal time-out.

Impact: Case 1. The user may hear voice continue to play where it was expected to stop.
Case 2. None.
Cases 3-6. Unpredictable.

2236	Minor Error	Case1	Action 52
		Case 2, 6	Action 85
		Case 3	Action 86
		Case 4	Action 87
		Case 5	Action 53
		Case 7, 8	Action 88
		Case 9, 10	Action 89
		Case 11	Action 54
		Case 12-13	Action 1
		Case 16	Action 55
		Case 17	Action 56
		Case 18	Action 8
		Case 19	Action 23
		Case 20	Action 57
		Case 21	Action 58
		Case 22	Action 59
		Case 23	Action 90

Cause: VM encountered a problem during a call answering or express messaging session. The return code and message text isolate the cause. If the text says:

1. “Trouble Finding mailbox”, VM encountered an error looking up a mailbox for an Express Messaging session.
2. “Close the greeting”, VM had problems closing the greeting before starting to record a call answering message.
3. “Creating the message”, VM was unable to create a message for the call answering session.
4. “Closing Sys Greeting”, VM had problems closing the system greeting before starting to play the next prompt.
5. “Close voice in bad grtg”, VM had a problem playing a greeting and closing it.
6. “Error playing pers. grtg, subst std grt”, VM had a problem playing a non-system greeting or a telset busy prompt.
7. “Opening cabinet”, VM had a problem opening the user’s cabinet for an express messaging session.
8. “Finding Profile”, VM had a problem finding the user’s profile for an express messaging session.
9. “Read Profile”, VM had a problem finding or reading the user’s profile for an express messaging session.
10. “Open User Profile”, VM had a problem finding or opening the user’s profile while name addressing during an express messaging session.
11. “SetCallInfo failed in DNUpdate”, VM had a problem obtaining the caller’s DN or placing it in the call answering message.
12. “dd_Write failed in DNUpdate”, VM had a problem writing the caller’s address into the call answering message.
13. “dd_FindRec failed in DNUpdate”, VM had a problem finding the record in a call answering message which contains the sender’s address.
14. “Error playing system grtg, subst pers/std grtg”, VM had a problem playing the system greeting.
15. “dr_FindEnt on Caller”, VM encountered a problem finding the caller’s entry in the organization directory while trying to set up the call information.
16. “mkAddress on Caller”, VM encountered a problem formatting the caller’s address while trying to set up the call information.
17. “Error playing custom CA unans greeting” or “Error playing custom busy greeting” or “Error playing custom disabled/vacant greeting”, the applicable greeting was not recorded or some other greeting error occurred.
18. “Error playing system greeting, subst. pers/std greeting”, there was an error on playing the guest or staff system greeting.
19. “Could not update calling context” in DN Update, VM encountered an error getting the calling context from the VSS.
20. “CA max message length reduced” then the maximum call answering message length has been reduced for the mailbox indicated because the user has exceeded

the space allocated (if the return code is 0). If the return code is non-zero, then the changing of maximum message length was unsuccessful.

21. “Call Answering message not recorded”, then the mailbox indicated has become so full that a call to that mailbox was reverted to the attendant.
22. “PlyCADefGrt: DN” or “PlyBusyGrt: DN” or “pspPlyPr:pCAPr: DN” then the dialing number could not be obtained for one of the default call answering greetings.
23. “Read profile for TAG”, VM encountered a problem reading the user’s Temporary Absence Greeting (TAG) profile during a call answering session.

Impact:

Case 1.	The user will have just entered the mailbox number where they wanted to leave a message and instead of hearing the verification they will hear the error prompt. The express messaging session will then be terminated.
Case 2.	None to the user, but a heap loss may occur after the user disconnects, and the channel will reload.
Case 3.	If this is the result of a full volume server, the user will hear an error prompt and will be placed in the call answering empty state.
Case 4.	None to the user, but a heap loss may occur after the user disconnects, and the channel will reload.
Case 5.	A personal greeting may not be heard, or subsequent commands may fail.
Case 6.	A personal greeting or telset busy prompt is substituted with the system-provided standard greeting.
Cases 7-9.	If the user was in name addressing then he or she will hear “Call Answering cannot be continued at this time. Connecting to the attendant.” The call will then be rerouted to the attendant. If the user was not in name addressing then they will hear “Your session cannot be continued. Please try again later or contact your administrator.” The express messaging session will be terminated.
Case 10.	The user will hear “Call Answering cannot be continued at this time. Transferring to an attendant.” The call is rerouted to the attendant.
Cases 11-13.	The “from address” in the call answering message being left may be incorrect or incomplete.
Case 14.	The user will hear just the personal or standard greeting instead of the system greeting and the personal or standard greeting.
Cases 15-16.	The caller’s address will not be stored in the message.
Case 17, 23	The default greeting is played instead of the custom greeting or the busy greeting is not played or the system reverts to the revert DN and does not play the disabled/vacant greeting.
Case 18.	The greeting is not played.

Case 19. The recipient of the call answering/Express Messaging may not be able to use the Call Sender function on the message, and the “from” information in the message header may be incorrect.

Case 20. If the return code is non-zero, the maximum message length could not be reset. Otherwise, callers to this mailbox will not be able to leave messages which are greater than one minute in length.

Case 21. This is a feature. Callers to this mailbox will not be allowed to leave messages and will be transferred to the attendant.

Case 22. The caller may hear the incorrect number in the call answering message.

2237 Minor Error

Case1	Action 61
Case 2	Action 62
Case 3-7	Action 63

Cause: VM encountered a case which its software does not handle. If the text says:

1. “Turn on timer”, VM tried to reset its delay timer with an undefined value.
2. “Illegal state”, the state tables in VM indicate that a non-existent prompt should be played. This is usually a software error, but it could also be caused by corrupt memory (i.e., bad RAM hardware). Software causes could be errors in state tables or digit parser in the wrong state.
3. “Illegal procedure”, the state tables in VM indicate that a nonexistent procedure should be executed.
4. “VoiceIOEvent”, VM received an undefined or inconsistent VoiceIOEvent interrupt.
5. “RN State not handled in PlayRNPrompt”, a prompt could not be played because VM is in an illegal state.
6. “Internal Error: Bad RN schedule RecIDpassed to RNRead”, or “Internal Error: Bad RN schedule passed to RNWrite”, VM encountered an unknown Notification schedule type.
7. “Bad RN cmd entered in PSPRNMenu”, VM has encountered an invalid state.

Impact:

Case 1. This could cause a disruption of the normal sequence of delay prompts and affect the normal disconnect time out sequences. The entry of any command by the user may correct this condition.

Case 2. The user’s commands will not be understood correctly and the resulting error prompt will not be played.

Case 3. Unpredictable.

Case 4. Unpredictable.

Case 5. Unpredictable.

Case 6. The schedule cannot be read/added/changed/deleted.

Case 7. The user will hear the prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.”

2238 Minor Error Action 64

Cause: A problem occurred within VM and not at a lower level.

Impact: The user may hear a system error prompt. Normal operation may proceed upon user entry or VM may be shut down with the caller forwarded to the attendant as in the case of a non-user forwarded to VM.

2239 Minor Error Action 65

Cause: VM encountered an error while executing the skip backward command on a Non-Delivery Notification or an Acknowledgement. The return code isolates the cause.

Impact: The user will hear the error prompt "Your session cannot be continued. Please try again later or contact your administrator."

2240 Minor Error Action 92

Cause: VM was unable to set the speed or volume. The text message sets the scenario.

Case 1. If the text says "Failed setting volume/speed to default level in CallPStateProc", the volume/speed could not be reset to the session default level(s).

Case 2: If the text says "pspPlyCu: Changing playback volume/speed level failed", volume/speed could not be set back to previous user changed level(s).

Case 3: If the text says "Failure setting volume/speed in pspPlyBOF:", volume/speed could not be set back to previous user changed level(s).

Case 4: If the text says "Failure setting volume/speed to Normal level in Logoff", volume/speed could not be set to Normal level during log out or disconnect.

Impact:

Case 1. Message and/or prompts may be played at user changed volume/speed rather than at default session level(s).

Case 2: Message and/or prompts may be played at default session level(s).

Case 3: Message and/or prompts may be played at default session level(s).

Case 4: No impact. (Next logon or next call should reset volume/speed to Normal).

2250 Minor Error Case 1 Action 66
Case 2 Action 67

Cause:

Case 1. If the text says "Quick Compose setup failed", VM encountered an error while setting up an express messaging session. The return code isolates the cause.

Case 2: If the text says "couldn't get Mbox Num", VM had problem translating the Mailbox Number to be played back to the user.

Impact: Case 1. The express messaging session is terminated. If the user has yet to hear the spoken name verification then the user will hear the error prompt "Your session cannot be continued. Please try again later or contact your administrator." If the spoken name verification has already been played, then the user will hear "Your call cannot be continued at this time; transferring to an attendant," and the system will make the connection.

Case 2: The user may not get proper confirmation of the mailbox number to which message is being sent. The session will continue and the message can be recorded and left.

2251 Minor Error Action 68

Cause: VM encountered a call processing problem while trying a custom operator revert. The return code isolates the cause.

Impact: The user is not transferred to the custom operator. The user will hear the error prompt "Your connection cannot be completed at this time. Please try again later or contact your administrator." If the user was in call answering, then the user will be returned to the place where 0 was pressed. If the user was logged in to a mailbox, then the user will be placed at the end of it. The user is told the call can't be completed. The user can still continue the mail session. If residential call answering is used the mail session ends as well as the call.

2253 Minor Error Action 69

Cause: VM was unable to retrieve a digit that was entered by the user causing the digit to be lost. The return code isolates the cause.

Impact: The user may hear prompts or messages continuing to play when they should have been interrupted. Subsequent digits may be incorrectly interpreted as different commands.

2254 Minor Error Action 70

Cause: VM encountered a problem while trying to update the message information with the acknowledge or time delivery tags. The return code isolates the cause.

Impact: The current message tagged for acknowledgement or timed delivery will not be tagged as desired. The user will hear the error prompt.

2255 Minor Error Case1-9, 11 Action 21
Case 10 Action 71

Cause: VM encountered a problem playing an address or mailbox ID. The return code and the text message isolate the cause.If the text says:

1. "Failed to get site info", VM had trouble translating an address for playing purposes.

2. “Failed to get mailbox number”, VM had trouble translating an address for playing purposes.
3. “Site should be remote”, VM found an address with a non-existent mailbox ID which is either not “remote” or is in a Coordinated Dialing Plan (CDP).
4. “Site should not be in CDP”, VM found an address with a non-existent mailbox ID which is either not “remote” or is in a Coordinated Dialing Plan (CDP).
5. “External address not from”, VM was trying to play “to a non-user” or some prompt including the segment “system” which is not the prompt “from system”.
6. “mt_RecType — TmptBase mismatch”, VM was trying to play “to a non-user” or some prompt including the segment “system” which is not the prompt “from system”.
7. “OnNet Address not FROM” then VM was trying to play the prompt “a message from an OnNet user”.
8. “OnNetAddr: DN”, then an OnNet Address could not be converted for playback in the user’s context.
9. “NonUser: DN”, then an external non-user address could not be converted for playback in the user’s context.
10. “Error translating PDL entry from nt_AdrToDig”, VM encountered a problem translating an address in a personal distribution list (PDL) while playing the PDL or addressing the PDL during compose.
11. “Failed to play network-wide/local NMS location/remote/unknown broadcast number”, VM could not play a broadcast address.

Impact:

Cases 1, 2	If VM encountered an undefined site ID, the user will hear “Deleted Site” otherwise the user will hear the error prompt “The caller’s number isn’t known”.
Cases 3, 4	The user will hear the prompt “Deleted Site”.
Cases 5-7	The user will hear the error prompt “The caller’s number isn’t known”.
Cases 8, 9	The address may be voiced incorrectly.
Case 10	The user will hear the prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.”

2256 Minor Error

Case 1-2, 3-6, 10-11	Action 1
Case 7	Action 72
Case 8-9	Action 73

Cause: VM encountered a problem during name addressing. The return code isolates the cause.

1. If the text says “Failed to reset advice in NADetermine”, or “Failed to reset advice in FindAllNames”, or “Failed to reset advice in pspNam2Addr”, or “Failed to reset advice in pspNamList”, or “Failed to reset advice in pspPNam2Addr” or “Failed

to reset advice in PlyNAUserName", the VM failed to reset the keypad language after the user had cancelled name addressing or encountered an error.

2. If the text says "Keypad lang ND or ChgAdvice failed", the keypad language is undefined or VM failed to reset the keypad language. This error would occur just after the user enters the name addressing prefix.
3. If the text says "Could not MkAddress for name", VM was unable to create an address for a user found by name addressing.
4. If the text says "could not find next name", VM had problems finding entries in the Organization Directory or found less than two entries while creating a user requested list for name addressing.
5. If the text says "Problem in pspNam2Addr", VM had a problem searching the Organization Directory for a specific name.
6. If the text says "Insufficient memory available", VM does not have enough space to create a list of the names that may be matched.
7. "Error while finding or writing name-addressed entry to message record", VM was unable to add an address found by name addressing to the message recipient list during compose.
8. "Error while searching for duplicate name-addressed PDL entries", VM was unable to check if an address found by name addressing had previously been entered in a PDL while composing, adding entries or finding an address in the PDL.
9. "Error while adding name-addressed entry to PDL", VM was unable to add an address found by name addressing to the address list of a PDL.
10. "Error while retrieving list of names found during PDL compose", VM was unable to create a list of names that may be matched while composing or adding entries to a PDL.
11. "Error while retrieving list of names found during PDL Find Address", VM was unable to create a list of the names that may be matched while finding an address in a PDL.

Impact:

Case 1. Searches in the Organization Directory may produce incorrect results.

Case 2. The user will hear the error prompt. Name addressing will be terminated and the user returned to the point where the prefix had been entered.

Case 4. If this happens while VM was collecting names for a user requested list of matches there are two possible results. The first result is that one name (per SEER) will be left out of the list. The second occurs if the list ended up with less than two valid addresses thereby causing a second SEER. The user will hear the error prompt and then is returned to where he or she accessed name addressing, either in the user's mailbox or at the beginning of express messaging.

This could happen during a "Name Addressing" unique match. The result in this situation is identical to the second result but the extra SEER is not generated.

Cases 5, 7. The user will hear the error prompt "Your command cannot be completed. Please try again later or contact your administrator." If the user had been addressing a message or a distribution list, then the user is placed back in their mailbox, otherwise the user is placed at the beginning of Express Messaging.

Cases 8 - 12 The user will hear the error prompt, "Your command cannot be completed at this time. Please try again later or contact your administrator", and then be placed on the current message in the mailbox.

2257	Minor Error	Case 1-3, 5	Action 25
		Case 4	Action 74
		Case 6	Action 75
		Case 7	Action 76
		Case 8	Action 77
		Case 9	Action 78

Cause: VM encountered a problem during Remote Notification.

1. If the text says “Failure reading PersProf RemNotif Record”, or “Failure reading RemNotif Temporary Schedule Record”, or “Failure reading RemNotif Business Days Schedule Record”, or “Failure reading RemNotif Non-Business Days Schedule Record”, or “Failure calling dd_QuickInfo on PersProfile”, VM encountered an error reading the Remote Notification section of the user’s personal profile.
2. If the text says “Failure writing/adding/deleting RemNotif Temporary Schedule Record”, or “Failure writing/adding/deleting RemNotif Business Days Schedule Record”, or “Failure writing/adding/deleting RemNotif Non-Business Days Schedule Record”, VM encountered an error updating the Remote Notification section of the user’s personal profile.
3. If the text says “Failure writing PersProf RemNotif Record”, VM encountered an error updating the Remote Notification section of the user’s personal profile.
4. If the text says “Failure in ChgMode of PersProfile for write”, VM could not get exclusive write access to the user’s personal profile. For example, there might be simultaneous access to the user’s personal profile if the MM1 or OCS is currently updating the user’s mailbox.
5. If the text says “Could not read PersProfile Msg’ing record”, or “Failure updating current view of profile”, the user’s remote notification schedules could not be read in before they were updated.
6. If the text says “Failure converting netDN for RemoteNotif <dn>”, VM could not convert a Network DN to a phone number to announce relative to the user’s context. A phone number in the user’s remote notification schedule or the network database may be corrupt. The return code isolates the cause.
7. If the text says “Failure converting input DN for RemoteNotif <dn>”, VM could not convert a phone number entered by the user to a Network DN.
8. If the text says “Failure checking RemNotif dial restriction/permission list”, VM could not check a phone number against the restriction/permission list.
9. If the text says “Could not NewVar the OutCalling variables”, VM did not have enough memory for required operation. May be caused by memory fragmentation over extended system usage, or if it happens frequently, then the system was engineered incorrectly. This is a major problem caused by lack of memory.

   The return code isolates the cause.

Impact:

Case 1. The Remote Notification information cannot be determined. The user may not be allowed to change the remote notification schedules.

Case 2. The schedule cannot be added/changed/deleted. The previous schedule (if it existed) may or may not be overwritten.

Case 3. The outcalling data/fields cannot be added/changed/deleted. The previous data (if it existed) may or may not be overwritten.

Case 4. The Remote Notification information could not be read/added/changed/deleted. This problem will clear within a short time and the user should be able to try again with success.

Case 5. The Remote Notification information, which is currently in effect, may be overwritten with old data.

Case 6. The user may hear the Network DN played back in an incorrect format.

Case 7. The user will hear the prompt "Your command cannot be completed at this time. Please try again later or contact your administrator" and the specified phone number will not be stored in the user's remote notification schedule.

Case 8. The user will hear the prompt "That number cannot be reached from this service." and the specified phone number will not be entered into the user's remote notification schedule.

Case 9. If this message appears while the user is trying to log in, the user will not be able to log in to that mailbox, but will be prompted to try again or to log in to another mailbox. If this message appears while the user is already logged in, and tries to use the remote notification setup command, the user will not be allowed to use the command and will hear an error prompt.

2258 Minor/Error

Case 1-2	Action 75
Case 3	Action 77
Case 4,6	Action 74
Case 5	Action 73

Cause: VM encountered a problem with the change of the user's Operator Assistance Number.

1. If the text says "Failure converting netDN for CustOpRev <dn>", VM could not convert the Operator Assistance Number for playback in the user's context.
2. If the text says "Failure converting input DN for CustOpRev <dn>", VM could not convert a phone number.
3. If the text says "Failure checking CustRev dial permission/restriction list", VM could not check a phone number against the permission/restriction list.
4. If the text says "Failure in ChgMode of PersProfile for write", VM could not get exclusive write access to the user's personal profile.
5. If the text says "Could not read PersProfile Msging record", or "Failure writing the Operator Assistance Number", VM could not access the user's personal profile.

6. If the text says “Failure in ChgMode of PersProfile for read, VM could not relinquish exclusive write access to the user’s personal profile.

The return code isolates the cause.

Impact:

Case 1. The user will hear the Network DN played.

Case 2. The user will hear the prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.”

Case 3. The user will hear the prompt “That number cannot be reached from this service”.

Cases 4, 5. The user will hear the prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.” The Operator Assistance number could not be changed.

Case 6. The user will hear the prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.” The operator assistance number will be changed as specified by the user. A SEER will signify when the user’s profile is closed and cleaned up by the VS sweeper.

2261	Minor/Error	Case 1	Action 79
		Case 2	Action 80

Cause: VM has read/written corrupt or inconsistent data on the disk.

1. If the text says “Cabcounter wrong” or “cm_tCounters” then the counters for the number of unread, urgent, or total voice messages in the user’s mailbox is wrong.
2. If the text says “Can’t Play Msg Create Date”, or “Can’t Play Msg Sent Date”, then a time/date stored in a message header or user mailbox/cabinet is corrupt.

Impact:

Case 1. The number of new or urgent messages announced to the user may be wrong (during login). For example, it might say there are no new messages when really there is one new message. If the user subsequently discovers the new message (i.e., at the next login), it may appear as if the message delivery had been delayed.

Case 2. A time/date will not be played, or will be played incorrectly or partially. Impact varies depending on the feature being used at the time. For example, the date/time a message was received may be incorrect or not announced.

2262 Minor Admin Action 81

Cause: VM has detected one, or both, of the following:

- a login from one of the specified CLIDs that are being monitored
- a login to one of the mailboxes being monitored during the monitoring period

If the text says

1. “A login has been detected from CLID=<clid> to MBox=<mbox>”, VM has detected a successful login from a CLID that is being monitored or to a mailbox being monitored.
2. “A login has been detected to MBox=<mbox>”, VM has detected a successful login to a mailbox being monitored.
3. “A login has been detected from CLID”, VM has detected a successful login from a known caller.
4. “An attempt to login was made from CLID=<clid>”, VM has detected a login from a CLID that is being monitored, but the login attempt was unsuccessful.

Impact: In all cases, an unauthorized login has occurred at an unauthorized time. Hacker activity could be in progress.

2263 ???? Action ????

Cause: Problem with PDL conversion function.

Impact: ????

Actions

Action 1 Contact the owner of the mailbox shown in the SEER to determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 2 Contact the owner of the mailbox shown in the SEER to determine the scenario that caused the SEER. Collect all relevant information (including the prompt ID from the previous Class 21 SEER), and contact your Nortel Networks support organization.

Action 3 User-recorded voice messages are auto-saved every five minutes of recording. This is failing and your Nortel Networks support organization should be called. In the meantime, however, you may wish to temporarily reduce the maximum message length to less than five minutes. This will avoid the problem until it can be corrected.

Action 4 The user should delete some messages or the administrator should increase the user’s voice storage allocation. If this does not help, contact your Nortel Networks support organization.

Action 5 The user volume is full. Users should be reminded to delete all unnecessary messages. Auto-deletion of sent or read messages can be enabled. If this does not help, contact your Nortel Networks support organization.

Action 6 Ensure that the restriction/permission lists are set up properly. Contact Nortel Networks support if there is any problem accessing the restriction/permission lists.

Action 7 Use the MMI screen to set the system time if necessary.

Action 8 Look up the return code for specific information. If the code does not help, contact your Nortel Networks support organization.

Action 9 It may help to delete and re-add the mailbox that the user was trying to compose to. If the networking or NMS features are installed, ensure that the network administration screens show the correct information. If the problem persists, contact your Nortel Networks support organization.

Action 10 Ensure that the dialing access restriction/permission codes in the voice security options screen have been set correctly. If the problem persists, contact your Nortel Networks support organization.

Action 11 Ensure that the network administration screens for AMIS Networking show the correct information. If the problem persists, collect all relevant information and contact your Nortel Networks support organization.

Action 12 Look up the return code for specific information. If the code does not help, contact your Nortel Networks support organization.

Action 13 Look up the return code for specific information. If the code does not help, contact your Nortel Networks support organization.

Action 14 The administrator must re-enable the mailbox. The administrator should speak to the mailbox owner to determine if someone is attempting to gain unauthorized access to the mailbox, or if the user simply forgot the password. If an unauthorized access is suspected, more information is available in the SEER. The DN from which the unauthorized access was attempted is printed in the SEER, if known, following “CGN”. In addition, the information following “DEV” indicates if it is an internal caller (DEV 0) or an “external” trunk caller (DEV 1). If the SEER happens frequently, but is only due to users forgetting their passwords, it may be advisable to increase the number of incorrect login attempts allowed, using the “Voice Security” screen on the admin console.

Action 15 Examine related SEERs for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 16 Look up the return code and, if necessary, examine preceding or subsequent SEERs for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 17 Look up the return code for specific information. If the code does not help, contact your Nortel Networks support organization.

Action 19 Determine the scenario that caused the problem. Look up the return code for more information. If the code does not help, contact your Nortel Networks support organization. Note that persistent SEERs on opening or playing Custom Greetings could be caused by failing to record a greeting after setting the greeting record to “custom”.

Action 20 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 21 Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 22 Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 23 Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 24 First of all, find out why VM could not initialize properly by reviewing the preceding SEERs. Then, make sure that the System Attendant DN has been defined as a valid phone number in the MMI (General Administration, General Options screen). Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 25 Look up the return code for more information. If the code does not help, contact your Nortel Networks support organization.

Action 26 Look up the return code for specific information. If the code does not help, contact your Nortel Networks support organization.

Action 27 The system volume is full. Delete files and perform an audit.

Action 28 The user should delete some messages or the administrator should increase the user’s voice storage allocation.

Action 29 Examine the preceding SEERs that have the same mailbox number or a SEER number matching the return code. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 30 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 31 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 32 Look up the return code for more information. If the code does not help, contact your Nortel Networks support organization. If the text of the SEER refers to “trying to open

message" with a return code of 1007, this and subsequent 2227 and 2233 SEERs are not significant problems unless a number of them occur at once. The user can clean up any inconsistencies caused by this problem by deleting the offending message.

Action 33 The user should delete some messages or the administrator should increase the user's voice storage allocation. If this does not help, contact your Nortel Networks support organization.

Action 34 The user volume is full. Users should be reminded to delete all unnecessary messages. Auto-deletion of sent or read messages can be enabled. If this does not help, contact your Nortel Networks support organization.

Action 35 Advise the user shown in the SEER not to delete any messages in the mailbox, so that these can be studied by Nortel Networks support. Contact your Nortel Networks support organization. If the message was sent to a large system distribution list, or is a broadcast message, or if a broadcast message or one with a large distribution list exists in the users mailbox prior to the late message, then this SEER can be ignored.

Information in this SEER is as follows:

- HDR.DR is the time the message was left/sent/time-delivered
- FIR.DC is the time the message arrived in the recipient's mailbox
- R= is the number of recipients
- +B means this is a broadcast message
- +S means the message was sent to a system distribution list

The FID of the message is also included; if the user has deleted the message from his mailbox, the FID can be used to find the message if it exists in anyone else's mailbox. If the message was sent to a large system distribution list, or is a broadcast message, or if a broadcast message or one with a large distribution list exists in the users mailbox prior to the late message, then this SEER can be ignored.

Otherwise print out the following information and contact your Nortel development organization:

1. The message contents using the MD-MT utility.
2. The user's cabinet contents using "display +e" in the MD-CM utility.
3. The contents of any system distribution list to which the message was sent.

Action 36 Look up the return code for specific information. If the code does not help, contact your Nortel Networks support organization.

Action 37 To reset the MWI, send a new message to the user's mailbox, then have the user log in and read all messages that are new. The MWI should now be set correctly.

Action 38 Examine the related SEERs. Check that the preferred language of the user is a valid, installed language. Note: "Preferred language override" only applies to Call Answering and Express Messaging.

Action 39 Examine subsequent SEERs containing the same DN or user or mailbox for more information.

Action 40 Examine the preceding SEERs for more information.

Action 41 Examine the preceding SEERs for more information. If there are no preceding SEERs, the problem might be either that a non-VM user forwarded his or her phone to VM or the directory has a serious problem.

Action 42 Define a mailbox for the non-user or stop the offending telephone from being forwarded to VM.

Action 43 Contact your Nortel Networks support organization to replace with the correct vss.pd.

Action 44 Record a greeting, and if the problem persists, check the return code and contact your Nortel Networks support organization.

Action 45 If Nortel developers are not performing an investigation at the time, contact your Nortel Networks support organization to remove Voice Messaging debug flag.

Action 46 Ensure that the time is set correctly. If problem persists, contact your Nortel Networks support organization.

Action 47 If problem persists, contact your Nortel Networks support organization.

Action 49 If problem persists, contact your Nortel Networks support organization.

Action 50 The SEER text should describe the exact problem. If the action is not obvious from the description, contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 51 Look up the return code for more information. If the code does not help, contact your Nortel Networks support organization.

Action 52 This SEER provides the mailbox number that the Express Messaging user tried to enter. Use it and the return code to solve the problem. If unclear, contact your Nortel Networks support organization.

Action 53 Examine related SEERs for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 54 Examine SEER 2236, which precedes this SEER, for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 55 Refer to subsequent class 22 SEERs for more information. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 56 Record the applicable greeting if it is not already recorded. If the error persists, check the return code and contact your Nortel Networks support organization.

Action 57 Act on the return code if non-zero. If unclear, contact your Nortel Networks support organization.

Action 58 System administrator should inform the user that his mailbox is too full and he should clean it up and/or the user may require more space.

Action 59 Look up the error code and act accordingly. If unclear, contact your Nortel Networks support organization.

Action 60 Examine SEER 2250, which follows this SEER.

Action 61 Contact your Nortel Networks support organization and supply SEER printouts covering the hour before and the hour after this SEER occurred.

Action 62 Contact the owner of the mailbox shown and determine the sequence of commands that were given by the user to cause the problem. Contact your Nortel Networks support organization.

Action 63 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 64 Look at the accompanying SEERs for more information. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 65 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 66 This SEER is often preceded by a related SEER, one having the same mailbox number or a SEER number matching the return code. Examine this SEER. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 67 This SEER is often preceded by a related SEER, one having the same mailbox number or a SEER number matching the return code. Examine this SEER. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 68 Look up the return code for more information. If the code does not help, collect all relevant information and contact your Nortel Networks support organization. One possibility is that the DN being transferred to is out of order. Try calling the DN directly.

Action 69 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 70 Look up the return code for specific information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 71 If a user is playing a PDL, examine SEER 2223. If a user is addressing a PDL during compose, examine SEER 2210.

Action 72 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 73 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 74 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 75 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 76 Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 77 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 78 Disable and then re-enable the offending channels. Contact your Nortel Networks support organization.

Action 79 Contact the user whose mailbox is shown in the SEER and determine the scenario causing the SEER. Ask the user not to change his/her mailbox (by reading, deleting, composing, or sending messages until the problem is investigated further. Make a copy or write down the information in the SEER which says “cm_tCounters”, then contact your Nortel Networks support organization.

Action 80 Contact the user whose mailbox is shown in the SEER and determine the cause of the SEER (the current feature can be determined by the secondary return code). Contact your Nortel Networks support organization.

Action 81 Contact the customer’s security organization immediately. Also, call the authorities, if necessary.

Action 82 Look up the return code and, if necessary, examine preceding or subsequent SEERs for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 83 The user should delete some messages, or the administrator should increase the user's voice storage allocation. If this does not help, collect all relevant information, and contact your Nortel Networks support organization.

Action 84 That user volume is full. Delete files, and perform an audit.Action 85Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 86 Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 87 Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 88 Examine SEER 2250, which follows after this SEER, for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 89 Examine SEER 2250, which follows after this SEER, for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 90 Record the applicable greeting if it is not already recorded. If the error persists, check the return code, collect all relevant information and contact your Nortel Networks support organization.

Action 91 Define a mailbox for the offending call answering service. Collect all relevant information and contact your Nortel Networks support organization.

Action 92 Disable and then enable the port or voice card. If the problem persists, see if the surrounding SEERs indicate where the problem my be. If you are unclear about the problem, contact your Nortel Networks support organization..

Action 93 See if the same problem occurs for other guests. If the problem persists, contact your Nortel Networks support organization.

Voice Processor Handler (VPH)

Introduction

The Voice Processor Handler (VPHDLR or VPH) subsystem

- transfers commands between the multimedia DSP port and the Voice or Fax I/O package in the application program
- initiates data transfers to and from disk
- transfers DTMF digit reporting from the DTR algorithm on the Voice Processor card to the application
- monitors the health of the “driver” (sub-band coding and DTR) portion of the software for the voice processor card
- performs 2500 set emulation for non-CSL (non-ISDN/AP) configurations

Failures in the VPH can cause abnormal termination of the current session and corruption of the Voice or Fax message. The software usually recovers, so no action is required for most one-time occurrences of a given SEER. If a SEER appears persistently, contact your Nortel Networks support organization. Sometimes a port should be disabled and reenabled.

A class 24 SEER generally contains:

- a text description of the problem or event
- the DN that has been output, which is the DN assigned in the Channel Allocation table (CH=DN)

Reports

2401 Minor Error Action 1

Cause: An error occurred while sending to the VPIO task.

Impact: Varies. Often none, at worst the current recording will be lost.

2402 Minor Error Action 2

Cause: Firmware on the Voice Processor Peripheral does not respond.

Impact: Varies. Often none. At worst, the last ten seconds of recording are lost.

2403 Minor Error Action 3

Cause: Disk or software too slow to read or write a block of voice within the expected time. This may happen when the system audits are running.

Impact: Varies. At worst, the session will take itself down (if the problem occurs continuously). Ordinarily, a few seconds of recording may be lost.

2405 Minor Error Action 4

Cause: Peripheral Voice Processor Firmware message queue problem.

Impact: Varies. Often none. At worst, the last 10 seconds of recording are lost.

2406 Minor Error Action 1

Cause: Sending a message to the VSS has failed.

Impact: The VSS may lose call progress information and/or digit arrivals. The user may not be able to perform telephony functions, such as call transfer. Calls may not be answered.

2408 Minor Error Action 5

Cause: Application and filing software too slow to clear buffer of receive / record data.

Impact: Three to four seconds of recording may be lost.

2410 Minor Error Action 6

Cause: May be excessive load on system.

Impact: Three to four seconds of recording or a portion of the current Fax may be lost.

2411 Minor Error Action 6

Cause: Communication error between the VPHDLR and voice processor firmware.

Impact: Varies. A few seconds of voice may be lost. The session may be taken down.

2412 Minor Error Action 6

Cause: Communication error between the VPHDLR and voice processor firmware.

Impact: Varies. A few seconds of voice may be lost; session may be taken down.

2413 Minor Error Action 7

Cause: Error in reading data from disk.

Impact: For voice, there is an imperfect playback for a few seconds. For Fax, the current Fax session is ended.

2414 Minor Error Action 7

Cause: Disk write error.

Impact: For voice, a few seconds of voice are lost. For Fax, the current Fax operation is ended.

2417 Minor Error Action 1

Cause: On-error entry invoked on sending to VPIO task.

Impact: Varies from nothing to losing message currently being recorded.

2418 Minor Error Action 1

Cause: On-error entry invoked on sending to application.

Impact: Playback may be truncated. Recording may be lost. Calls may not be answered. Digits may be lost.

2419 Info Error Action 3

Cause: Disk and filing software too slow during heavy load.

Impact: Voice may be played with gaps of silence interrupting playback. Portions of a FAX may not be printed.

2420 Info Error Action 3

Cause: More data has arrived than the disk and filing software can process.

Impact: None

2422 Minor Error Action 6

Cause: Communication problem between VPHDLR and voice processor firmware.

Impact: Varies from no impact to garbled/no playback to 10-15 seconds of current recording being lost.

2425 Minor Error Action 8

Cause: Problems in starting or stopping the voice processor firmware.

Impact: Channel out of service.

2426 Minor Error Action 8

Cause: Problems in starting up voice processor firmware.

Impact: Channel out of service.

2427 Minor Error Action 8

Cause: Problems in starting up voice processor firmware. An odd address has been deleted.

Impact: Channel out of service.

2428 Minor Error Action 8

Cause: Communication problem between the VPHDLR and the voice processor firmware.

Impact: A port will be unavailable.

2429 Minor Error Action 9

Cause: Unexpected disk block during playback.

Impact: Varies from no impact to silence during playback or garbled playback/prompts.

2430 Minor Error Action 10

Cause: Cannot assign timer from OS.

Impact: VPH will die. A port will not be available until the VPH is reloaded.

2431 Minor Error Action 6

Cause: End of block report from voice processor heard during playback or record. Software logic or communication problem.

Impact: None.

2432 Minor Error Action 6

Cause: Communication problem between VPHDLR and voice processor firmware.

Impact: Varies from no impact to garbled/no playback to 10-15 seconds of current recording being lost.

2433 Minor Error Action 11

Cause: File I/O problems while starting up voice processor firmware.

Impact: Channel out of service.

2434 Minor Error Action 12

Cause: Problem detected on call initiation.

Impact: Transfer or out-dial attempt fails.

2435 Info Error Action 6

Cause: Software logic in VPIO or VPHDLR, or communication problem.

Impact: Varies from no impact to some “system error” prompts.

2436 Minor Error Action 7

Cause: Disk corruption or software logic problem.

Impact: Playback, or the current Fax operation may be stopped.

2438 Minor Error Action 13

Cause: Software logic or communication problem between VPHDLR and VPIO.

Impact: Varies. At worst, a few seconds of recently recorded voice may be lost.

2440 Minor Error Action 14

Cause: Communication problem between the VPHDLR and the voice channel allocator.

Impact: Voice port may be out of service until the channel is manually disabled and reenabled.

2441 Minor Error Action 15

Cause: VPHDLR initiate failed.

Impact: Channel out of service.

2442 Critical Error Action 15

Cause: Newpool fails for VPHDLR.

Impact: Channel out of service.

2443 Critical Error Action 15

Cause: AddPool fails for VPHDLR.

Impact: Channel out of service.

2446 Minor Error Action 13

Cause: Communication problem between the VPHDLR and the voice channel allocator.

Impact: VCA loses state of VPH. The port may become unavailable.

2449 Minor Error Action 16

Cause: Communication problem between the VPHDLR and SMDI link. Most likely, the SMDI link handler is not operating.

Impact: Calls will not be answered.

2450 Info Error Action 17

Cause: VPHDLR does not allow the requested command to be executed in its current state.

Impact: None

2451 Info Error Action 18

Cause: The command received by the VPHDLR is not supported.

Impact: None.

2452 Minor Error Action 18

Cause: The VPHDLR has an internal state table error.

Impact: The call may not be answered or may disconnect unexpectedly.

2453 Info Error Action 18

Cause: The VPHDLR timed out with an unknown timer value.

Impact: None

2454 Info Error Action 19

Cause:
1. On an incoming call, the VPHDLR timed out while waiting for the call information from the SMDI link handler.
2. VPHDLR timed out waiting for the incoming call detection after receiving call information from the SMDI link handler.

Impact: The default service will be started.

2455 Minor Error Action 20

Cause: The voice processor firmware informs VPHDLR of problems with the voice lines from the Meridian 1 switch to the Meridian Mail machine.

Impact: Calls may not be answered.

2456 Info Error Action 21

Cause: A DTMF tone of two or more minutes has continuously been detected by the voice processor firmware.

Impact: None

2457 Minor Error Action 18

Cause: Internal VPHDLR software error.

Impact: No voice will be heard or recorded. Calls may not be answered.

2459 Info Error Action 22

Cause: An unknown signal or digit has been detected by the voice processor software.

Impact: A digit may be missed.

2460 Info Error Action 23

Cause: Application task request to start voice detection while voice detection is already in progress.

Impact: The request is ignored by VPHDLR.

2461 Info Error Action 24

Cause: Bad or undefined message is received from the DSP while waiting for voice detection result.

Impact: The message is ignored.

2462 Minor Error Action 25

Cause: A tasking error occurred when VPH_PROCS was communicating with the VPHDLR.

Impact: The requested operation will fail.

2464 Minor Error Action 26

Cause: Failure to communicate with the VCM.

Impact: Information sent to the VCM may be lost.

2470 Info Error Action 27

Cause: The re-login timer was not previously cancelled.

Impact: The port may not be logged into the ACD/UCD group on the Meridian 1 switch side and will not receive any calls. All outgoing calls on this port will fail.

2471 Info Debug Action 28

Cause: Port being disabled or enabled incorrectly.

Impact: Port may remain out of service.

2472 Minor Error Action 29

Cause: Port failed to log in or log out of the group when enabled or disabled.

Impact: Port remains out of service. If the logout disable fails, calls will still be presented to the table.

2473 Info Error No Action

Cause: Port failed trying to log in or log out of group.

Impact: Port will automatically retry.

2474 Info Debug Action 30

Cause: Failure to allocate memory during the system start-up time.

Impact: The corresponding node will run without DSP ports.

2475 Minor Error Action 31

Cause: Dialtone was not received after ToneGen command causing timeout to occur.

Impact: Outgoing call cannot be completed.

2476 Minor Error No Action

Cause: Outgoing call has not been established yet.

Impact: None

2477 Minor Error Action 32

Cause: The FASCII block cannot be transmitted because the font table is incompatible.

Impact: The text block is not printed on the remote Fax machine.

2480 Critical Error Action 33

Cause: VPH parent program could not get required memory on startup.

Impact: Voice ports are not available on the node.

2481 Critical Error Action 33

Cause: Could not assign the appropriate space for heaps.

Impact: Voice ports are not available on the node.

2482 Info Error Action 34

Cause: The memory requested is not the same as the memory used.

Impact: None

2483 Info Error Action 35

Cause: More VPH child tasks are being asked to startup than were specified in the startlist.

Impact: No more ports can be enabled.

2484 Minor Error Action 36

Cause: Could not send information to the child task. Check task result.

Impact: The port is not started up properly.

2485 Minor Error Action 37

Cause: The internal table storing this information is corrupt.

Impact: The port is not enabled.

2486 Minor Error Action 38

Cause: A child task has crashed or terminated, but the parent does not know which port.

Impact: A port is out of service and cannot be automatically reenabled as it is not reported to the VCM.

2487 Minor Error Action 39

Cause: Data is not passed correctly on startup.

Impact: Voice ports are not available on the node.

2488 Minor Error Action 33

Cause: Unable to get and allocate the required memory.

Impact: Voice ports are not available on the node.

2489 Minor Error Action 40

Cause: PPComm task is not up or has not registered properly.

Impact: Voice ports will not function.

2490 Critical Error Action 41

Cause: Could not register parent with VCM.

Impact: Voice ports are not available on the node.

2491 Info Error Action 42

Cause: A VPH experienced an exception error.

Impact: The DSP port is temporarily out of service but will reconnect itself later.

2492 Info Admin Action 43

Cause: A VPH experienced a completion. This may be the result of an exception or a Courtesy/ Maintenance Disable by the administrator.

Impact: If the exception is the result of the exception, the port will be restarted.

2493 Minor Error Action 36

Cause: The VCM is trying to start a VPH on a channel that already has a VPH.

Impact: The channel will not load completely.

2499 Info Debug No Action

Cause: Debugging SEERs for the VPH.

Impact: None

Actions

Action 1 If the error persists, disable and enable the port. If it still persists, contact your Nortel Networks support organization.

Action 2 The firmware will be automatically reloaded. If the error persists on the same port, there might be a hardware problem, in which case disable the card where the port is located

and run the off-line tests on the card. If the problem still can't be identified, contact your Nortel Networks support organization.

Action 3 If error persists, or appears to happen during light load or outside of disk audit time, disable the card where the port is located, run offline tests, then reenable the card. If the error still persists and the cause of the problem isn't apparent, contact your Nortel Networks support organization.

Action 4 If the error persists, disable the card where the port is located, run off-line tests, then reenable the card. If the error still persists and the cause of the problem isn't apparent, contact your Nortel Networks support organization.

Action 5 If the error persists, disable and enable the port.

Action 6 If the error persists, disable the card where the port is located, run off-line tests, then reenable the card. If the error still persists and the cause of the problem isn't apparent, contact your Nortel Networks support organization,

Action 7 If error persists, contact your Nortel Networks support organization.

Action 8 Disable the card where the port is located, run off-line test, then reenable the card. If the error still persists, and the cause of the problem isn't apparent, contact your Nortel Networks support organization.

Action 9 If error persists, disable and enable the port. If it still persists, contact your Nortel Networks support organization.

Action 10 Affected VPH will be reloaded. If error persists, contact your Nortel Networks support organization.

Action 11 If error persists, disable and enable port. If it still persists, contact your Nortel Networks support organization.

Action 12 If error persists, disable the card where the port is located, run off-line tests, then reenable the card. If the error still persists and the cause of the problem is not apparent, contact your Nortel Networks support organization.

Action 13 If error persists, disable and enable the port. If it still persists, contact your Nortel Networks support organization.

Action 14 If the channel has problems playing or recording, disable and enable the port. If the problem persists, system may require a reboot.

Action 15 Disable the associated card, run off-line tests, then reenable the voice card. If that fails, contact your Nortel Networks support organization.

Action 16 Contact your Nortel Networks support organization.

Action 17 If the problem persists, disable and reenable the channel.

Action 18 Contact your Nortel Networks support organization.

Action 19 Make sure that the CSE can support the call load. Disable the card where the port is located, run off-line tests, then reenable the card.

If the error still persists and the cause of the problem is not apparent, contact your Nortel Networks support organization.

Action 20 Check the voice line associated with the bad channel, and run line diagnostics on the CSE. On Meridian Mail, disable the card where the port is located, run off-line tests, then reenable the card. If the error still persists and the cause of the problem isn't apparent, contact your Nortel Networks support organization.

Action 21 If the problem persists, disable the card where the port is located, run off-line tests, then reenable the card. If the error still persists and the cause of the problem is not apparent, contact your Nortel Networks support organization.

Action 22
1. Run voice processor diagnostics program.
2. Check ports for unusual noise conditions.

Action 23 If the problem persists, contact your Nortel Networks support organization.

Action 24 If the SEER persists, disable affected voice card, run off-line tests and enable the voice card.

Action 25 Contact your Nortel Networks support organization.

Action 26 Check the surrounding VCM SEERs and act accordingly. If the VCM is functioning, disable then reenable the corresponding node.

Action 27 May have to disable and then enable the port.

Action 28 If the port is out of service, enable it.

Action 29 Check the login and logout codes in the hardware database. They must correspond to the CSE.

Action 30 Disable, then reenable the node.

Action 31 Check status and wiring of the Meridian 1 switch. If both are OK, disable the affected card, run off-line tests on the card, then reenable the card.

Action 32 The system may not have the correct font table installed. Contact your Nortel Networks support organization for assistance.

Action 33 Analyze the other seers around to determine the problem. If you are unclear about the problem, contact your Nortel Networks support organization.

Action 34 None

Action 35 Contact your Nortel Networks support organization.

Action 36 Disable then reenable the port.

Action 37 May require disabling all the voice ports on this node and then reenabling them. If problem persists, reboot the node.

Action 38 Analyze the other SEERS around to determine the problem. Enable the port that is out of service. If problem persists, reboot the node.

Action 39 Contact your Nortel Networks support organization.

Action 40 Check the return code. Contact your Nortel Networks support organization.

Action 41 Analyze the other SEERs around to determine the problem. Check the return code. If you are unclear about the problem, contact your Nortel Networks support organization.

Action 42 No action is required since the DSP port will reconnect itself later.

Action 43 Check surrounding SEERs to determine the problem. If you are unclear about the problem, contact your Nortel Networks support organization.

Application Module Link (AML)

Introduction

The Application and Module Link (AML), formerly called the Command and Status Link (CSL) Subsystem, handles the transfer of messages between the Meridian 1 and Meridian Mail. The AML interfaces with VSS, OS and other applications such as MMI.

The two major functions of the AML are communicating with the link layer using LAPB protocol and communicating with an application task using the GTI interface.

AML errors can cause channels to be lost and a node to fail. Messages are lost in the process. A reboot is usually necessary after an AML failure.

A Class 25 SEER generally contains

- State of the AML link
- State of the agents on the ACD queue
- Information about problems, such as link communication, state transition
- Task communication

Reports

2501 Minor Error Action 1

Cause: A tasking error occurred, which means the AML failed to communicate with an application task.

Impact: The message sent to the application will be lost.

2502 Minor Error Action 2

Cause: Application task tried to login to AML with an invalid directory number (DN).

Impact: AML will reject the logon.

2503 Major Error Action 3

Cause: Hardware Database operation failed.

Impact: The AML might fail to start correctly and the VSS might not be able to login. This means that voice messaging might not start.

2504 Minor Error Action 3

Cause: Failed to close hardware database.

Impact: None

2505 Info Error No Action

Cause: AML link is up.

Impact: The link down condition has recovered back to normal service.

2506 Minor Error Action 4

Cause: Unknown call direction from the Meridian 1.

Impact: The presented call will be treated as a direct call automatically.

2507 Major Error Action 5

Cause: The Meridian 1 is overloading.

Impact: Messages might be lost.

2508 Minor Debug Action 6

Cause: Failed to send message to Meridian 1.

Impact: That message will be lost.

2509 Major Error Action 6

Cause: AML's lower layer is not ready.

Impact: Link is not ready.

2510 Minor Error Action 7

Cause: Receive queue is full.

Impact: Messages will be lost.

2512 Major Error Action 8

Cause: Failed to register to NameServer as link handler.

Impact: The voice messaging system will fail to start.

2513 Major Error Action 6

Cause: AML failed to start the lower layer.

Impact: AML will fail to start.

2514 Minor Error Action 9

Cause: Argument string in the startlist for AML is out of range.

Impact: AML will start with the maximum number of channels (96).

2515 Minor Error Action 9

Cause: No Argument string in the startlist for AML.

Impact: AML will start with the maximum number of channels (96).

2516 Major Error Action 10

Cause: Failed to allocate memory segment.

Impact: AML will not start.

2517 Major Error Action 11

Cause: Failed to create new buffer pool.

Impact: AML will fail to start.

2518 Major Error Action 11

Cause: Failed to initiate the AML task.

Impact: AML will fail to start.

2519 Major Error Action 11

Cause: Failed to add buffer pool together.

Impact: AML will fail to start.

2520 Major Error Action 6

Cause: AML link down.

Impact: Messages could be lost.

2521 Minor Debug No Action

Cause: Layer 2 has received a bad frame from the AML link.

Impact: Layer 2 will initiate appropriate recovery steps. There is no user impact. The link will not go down as a result.

2522 Minor Admin Case 1 Action 16
Case 2. Action 17

Cause: Case 1. The ACD DN programmed in the Meridian Mail channel allocation table does not exactly match the primary ACD queue DN programmed in the Meridian 1.

Case 2. Meridian Mail is trying to update the MWI lamp on a DN that is nonexistent in the Meridian 1's database.

Impact: MWI is not updated for the user.

2523 Minor Error Action 13

Cause: AML link handler has timed out waiting for the traffic congestion condition to clear in the LAPB protocol layers. The condition could be caused by heavy traffic or protocol errors.

Impact: AML link handler will instruct the protocol layers software to reset the link to recover. The link will be down momentarily.

2524 Major Error Action 14

Cause: The system ID was not defined on the Card Option.

Impact: The system will not come up.

2525 Major Admin Action 15

Cause: The time of day was not set up on the Meridian 1.

Impact: The voice channels will not come up. No Meridian Mail service will be available.

Actions

Action 1 Check that all channels are recovered (using the system status screen).

Action 2 Find out which application tried to logon. Check the channel allocation table and correct the DN if necessary.

Action 3 Contact your Nortel Networks support organization.

Action 4 None

Action 5 Contact your Nortel Networks support organization.

Action 6 Check the link. Disable and enable the ESDI or MSDL card. Reboot the system. Contact your Nortel Networks support organization if the problem persists.

Action 7 If the problem persists, contact Nortel's support organization.

Action 8 Reboot the system. If the problem persists, contact your Nortel Networks support organization.

Action 9 Contact your Nortel Networks support organization.

Action 10 Check the memory card.

Action 11 Check the memory card and reboot the system. If the problem persists, contact your Nortel Networks support organization.

Action 12 Check the DN printed with the SEER, and verify if it exists in the Meridian 1.

Action 13 None required. The congestion condition is transient in nature and the link will recover automatically after reset.

Action 14 Contact your Nortel Networks support organization.

Action 15 Use overlay 2 on the Meridian 1 to set the proper time of day.

Action 16 Check the Meridian Mail CAT table ACD DN entry matches the Meridian 1's primary queue ACD DN. Check for hidden characters, such as space characters, in the Meridian Mail CAT table entry.

Action 17 Check the DN printed with the SEER, and verify it exists in the Meridian 1.

Peripheral Processor (PP)

Introduction

The Peripheral Processor (PP) Subsystem, also known as the DSP, has two main parts: the PP_LOADER and the PP_COMM.

The PP_LOADER maintains and loads the PPs according to a predefined logical state diagram.

The PP_COMM sets up the Digital Signal Processor (DSP) shared memory, executive registers and message queues; sets up the interrupt message queue; handles DSP interrupts and the dispatching of driver events; provides voice tap control, DSP driver control, and DSP executive commands.

Errors in the peripheral processor can cause loss of control over the DSPs, resulting in subsequent loss of voice and even a system crash if the errors are fatal. Some errors are about boards or devices which cannot be located.

A class 26 SEER usually contains:

- status message on peripheral processor state changes
- status message on the DSP loading process
- task results

Reports

2600 Debug Error Action 1

Cases 1-6. Critical

Case 7. Info

Cause: The text may say the following:

1. “PP_Comm could not be initiated”
2. “PP_Loader could not be initiated”
3. “PP_Base task could not be initiated”
4. “NEWVAR failure”
5. “NEWPOOL failure”
6. “ADDPOOL failure”
7. “PP: Number of mappable DSPs on Node <node num> is <number>”

Impact: Cases 1-3. No voice will be available on the system.

Cases 4-6. Buffers of the size stated in the SEER will not be allocated. The system will experience task communication problems.

Case 7. None. This SEER is informational.

2602 Info Debug No Action

Cause: If the message text says:

1. "PP_Comm: Kill_DSP, Killed PP*100+Drv_ID = ", then one of the DSP is killed by VCM.
2. "PP_Comm: Do_PP_AUDIT, # events after PP halted = ", this is an indication of lost events for the DSP that will be killed.
3. "PP_Comm: PP_Update, On->Offline. PP =", there is a change of DSP State from online to offline.
4. "PP_Comm: PP_Update, On->MtcBusy, PP = ", there is a change of DSP State from online to Maintenance Busy.

Impact: None

2607 Major Admin Action 2

Cause: Task communication error.

1. PP_Loader: DspReset, PP_Comm.PP_Update Task Error.
2. PP_Loader: DspReset, PP_Comm.PP_Update Failed.
3. PP_Loader: DspRun, PP_Comm.PP_Update Task Error.
4. PP_Loader: DspRun, PP_Comm.PP_Update Failed.
5. PP_Loader: Cannot register globally

Impact: No voice

2608 Info Debug No Action

Cause: If the message text says "PP_Loader: Probable Timeout waiting for diagnostics", then there is a timeout waiting for the VP diagnostic program to run.

Impact: None

2609 Debug Error Action 3

Cases 1-30. Major

Cases 31-33. Minor

Cases 34, 35. Info

Cause:

1. PP_Comm: DSP is in infinite loop
2. PP_Comm: PP_Intr invalid msg
3. PP_Comm: Init_Resrc, cannot allocate Exec Driver_ID
4. PP_Comm: Hn_ExeMsg, No Exec msg for TO_PP

5. PP_Comm: Do_PP_Audit wrong sea or msg
6. PP_Comm: Do_PP_Audit, GetMsg failed
7. PP_Comm: Do_PP_Audit, PutMsg failed
8. PP_Comm: Do_PP_Audit, Audit failed
9. PP_Comm: Drv_Start invoked for off-line
10. PP_Comm: Drv_Start, No Driver_Id
11. PP_Comm: Drv_Start, Not enough DSP CPU capacity
12. PP_Comm: Drv_Start, No internal data memory
13. PP_Comm: Drv_Start, No shared data memory
14. PP_Comm: Drv_Start, No private program memory
15. PP_Comm: Drv_Start, Error put msg
16. PP_Comm: Drv_Start, communicating with DSP Exec
17. PP_Comm: Drv_Start, DSP Exec returns incorrect msg type
18. PP_Comm: Drv_Stop, DSP not online
19. PP_Comm: Drv_Stop, Cannot stop an inactive driver
20. PP_Comm: Drv_Stop, Error putting stop msg to the DSP Exec
21. PP_Comm: Drv_Stop, DSP Exec response tmout in Stop cmd
22. PP_Comm: Drv_Stop, wrong msg returned
23. PP_Comm: Drv_Stop, wrong Drv_Id returned
24. PP_Comm: Set_PP_Run, wrong msg
25. PP_Comm: Set_PP_Run, Get Exec
26. PP_Comm: Set_PP_Run, Exec TmOut
27. PP_Comm: Invalid TimeSlot number
28. PP_Comm: Cannot register with name server
29. PP_Comm: Get_CO_IDM - Unsupported number of IDM pages requested
30. PP_Comm: PutMSG - Invalid msg pointer
31. PP_Comm: Do_PP_Audit: DSP NMI occurrence - the DSP has received an apparent non-maskable interrupt.
32. PP_Comm: Do_PP_Audit: DSP timing loss, DSP internal timer ON - the DSP has lost its external timing reference, and is proceeding to use an internal timer.
33. PP_Comm: MultiM driver invoked on non-MultiM DSP - in the Hardware Database, a VCPORT record with Port Type “Multimedia” was found under a DSP record with Pkg Type “General_32” or “NorAmer_16”. This message should not occur unless a problem was encountered during an installation, hardware expansion, or port configuration.
34. Flush_One: <procedure name>, Nil TO_PP_Id
35. Flush_One: <procedure name>, No Exec msg for TO_PP

Impact: Cases 1-30. No voice for that card or part of the card.
Cases 31, 32. None.
Case 33. Multimedia ports on that DSP will not be available (i.e., out of service).
Cases 34, 35. None. These SEERs are only used for sanity checking the system.

2674 Major Error Action 4

Cause: The error text reads ‘PP: VP slot number missing.’ This means that there is a load build failure.

Impact: No voice for that node.

2675 Major Error Action 5

Cause: The error text reads ‘PP: Failed to map VP Control Register.’ This is due to a bad Voice Processor card.

Impact: No voice for that Node.

2676 Major Error No Action

Cause: A subtask has been completed/terminated.

Impact: The node will reboot and recover by itself.

2677 Admin Error Action 6

Case 1-3. Major

Case 4. Minor

Cases 5,6. Critical

Cause: Case 1. PP: failed to open Hardware Database
Case 2. PP: search RSMnBus card in Hardware Database failed. Use default setting.
Case 3. PP: search DSP record in Hardware Database failed.
Case 4. PP: Close Hardware database failed.
Case 5. PP: Number of incorrect TN range channels = n, where n = number of channels with incorrect TN definition. The Shelf or Card definition on the switch TN for the Voice Channel is incorrectly defined.
Case 6. PP: Number of Voice Channel Loop Number and RSMnBus (J4,J5) setting mismatches = n, where n = number of channels failed to match the RSMnBUS (J4, J5) setting.
The switch TN loop number defined on the Voice port record in hardware database is not defined in any of the RSMnBus (J4 or J5) setting.

Impact: Case 1. No voice for that node.
Case 2. No voice, if the voice port and switch TN setting is not matched with the default setting.

Case 3.	No voice for that node.
Case 4.	None.
Cases 5,6.	Ring-connect-silence.

2699 Info Error No Action

Cause: If the text of the message says “Warning: DSP file read time was more than 30 seconds, actual was *n* seconds,” the system is busy, for example, booting.

Impact: None

Actions

Action 1

Cases 1-6.	1. Disable and enable the node. 2. Contact your Nortel Networks support organization if the error persists.
Cases 7.	None.

Action 2 The following steps should be performed if any of the SEER messages listed are seen:

1. Disable and enable the node.
2. Contact your Nortel Networks support organization if the error persists.

Action 3

Cases 1-30.	The following steps should be performed if any of the SEER messages listed are seen: 1. Disable the Node. 2. Run OOS diagnostic. 3. If OOS diagnostic failed, replace the VP card. 4. If OOS diagnostic is OK, but problem persists, replace the VP card. 5. Enable the node. 6. If the problem persists after replacing the VP card, contact your Nortel Networks support organization.
Case 31.	If the problem persists, contact your Nortel Networks support organization.
Case 32.	Ensure that the Network Loop Interface is securely installed onto the Voice Processor cards. If the problem persists, contact your Nortel Networks support organization.
Case 33.	Contact your Nortel Networks support organization.
Cases 34, 35.	None.

Action 4 Do HwModify from release Tape.

Action 5

1. Disable the node.
2. Replace the VP card.
3. OOS diagnostic the VP card.
4. Enable the VP card.

Action 6

Case 1. Refer to the return code. The return code is identified as rc=<number> in the error text. Contact your Nortel Networks support organization.

Case 2. Refer to the return code. The return code is identified as rc=<number> in the error text. If ‘Ring-connect-silence is heard’, contact your Nortel Networks support organization.

Case 3. Refer to the return code. The return code is identified as rc=<number> in the error text. Contact your Nortel Networks support organization.

Case 4. Refer to the return code. The return code is identified as rc=<number> in the error text. The problem is transient.

Case 5. Use the hardware modify in the TOOLS level to redefine out-of-range TNs. This also affects the switch side definition. The range of the shelf is 0 to 1, and the range of the card is 2 to 3.

Case 6. Use the hardware modify in the TOOLS level to correct the setting. Define the RSMnBus records’ (J4 and J5) setting in accordance with the actual switch loop number connected to the connector.

Voice Base Service Shell (VSS)

Introduction

The Voice Base Service Shell (VSS) subsystem

- starts up a voice service task
- initializes resources to set up a voice connection
- processes call-processing requests from voice service task and monitors the progress of the operation
- sets up and tears down a call connection that originates from or terminates on a voice channel
- buffers digits entered by the user
- collects the call duration for OM

Each voice channel has its own VSS.

If a VSS cannot be started, incoming calls to that VSS channel cannot be handled. This reduces the number of channels available on the system. If a VSS fails when it is running, a call session may be terminated.

A Class 27 SEER generally contains a lower level return code.

Reports

2702 Minor Error Action 1

Cause: VSS was requested to start a voice service with an invalid service ID.

Impact: The voice service cannot be started.

2703 Info Error Action 2

Cause: VSS was requested to start a voice service but the service was not loaded. This indicates that the release tape has problems.

Impact: The voice service cannot be started.

2706 1. Minor Error Action 3
2. Info Debug Action 3

Cause: Case 1. VSS failed to start a voice service. In the text message, the extra integer is <Service Id>, an integer is the <return code> (lower level), string is <Calling DN> (the DN of the calling party), the other string is <Called DN> (the DN of the called party).

Case 2. If the text says "Failed to access NetDb in pSetStartData <return code>," this is a debug info SEER report, intended only for Nortel development use.

Impact: VSS will start up a voice menu service to play an error prompt to the user and then disconnect the call.

2707 Minor Error Action 4

Cause: A tasking error occurred when VSS wanted to communicate with other components.

Impact: Depends on the situation. The VSS may fail on only one operation.

2710 Minor Error Action 5

Cause: Too many digits were received and overflowed the buffer in the VSS. The overflowed digits were thrown away.

Impact: The voice service will not receive all the dialed digits, for example, incomplete passwords, commands, and so on.

2711 Minor Error Action 6

Cause: Not enough memory for VSS to start up.

Impact:
1. If channel is already running, Meridian Mail will reload channel software automatically.
2. If it occurs during loading of channel software, then VSS will not run channel and voice channel cannot be used.

2712 1. Minor Error Action 7
2. Info Debug Action 7

Cause: Case 1. An error occurred when VSS was initializing data for a new call session (for example, the VSS failed to re-read the Organization profile).

Case 2. If the text says "Failed to access NetDb in ChangeNet <return code>," this is a debug info SEER report, intended only for Nortel development use.

Impact: The service will not be started. The VSS will start up a voice menu service to play an error prompt to the user and then disconnect the call.

2713 Minor Error Action 8

Cause: An error occurred in disconnecting a call.

Impact: The call will be disconnected. In some situation, the VSS will be restarted.

2715 Minor Error Action 3

Cause: An error occurred during the process of switching voice services.

Impact: The switching will not be done. The call will be disconnected.

2716 1. Minor Error Action 9
2. Info Debug Action 9

Cause: Case 1. An error occurred in initialization when the VSS was first started up.

Case 2. If the text says one of the following, they are debug info SEER reports, intended only for Nortel development use:

a. “Channel POOS, ignoring call (ShellState) <ShellState>.”
b. “Parameter list is empty.”
c. “Failed to read parameter (idx, ArgString): <Index> <ArgString>.”
d. “Terminate Cmd received in VCM_RegisterDev <IPL Cmd>.”

Impact: The VSS will not run. The voice channel for the VSS will not be usable.

2717 1. Minor Error Action 10
2. Info Error Action 10
3. Info Debug Action 10

Cause: Case 1. A time-out occurred in the VSS.

Case 2. If the text says one of the following, they are error info SEER reports, that require no action:
a. “Failed to open profiles after timeout (rc): <Return Code>.”
b. “PostCall Processing timeout (ServId): <Service Id>.”

Case 3. If the text says the following, it is a debug info SEER report, intended only for Nortel development use:
a. “Invalid state in TmOutHdlr (ShellState) <ShellState>.”
Impact:A call may be taken down, or a voice service may be taken down.

2721 Minor Error Action 11

Cause: An error occurred in trying to shut down a voice service.

Impact: The voice service will be forced to shut down.

2722 Info Debug Action 5

Cause: A time-out occurred when waiting for permission to access the buffer that stores digits, so some digits may be lost.

2723 Minor Error Action 12

Cause: The VSS could not dial out because of failure to start a VPIO task.

Impact: The VSS will not be able to dial out from the voice channel.

2731 Minor Error Action 11

Cause: The voice service task issued a call processing command in the wrong context.

Impact: Minor. The VSS will reject the request.

2732
1. Minor Error Action 13
2. Info Debug Action 13
3. Info Error Action 13

Cause:
- Case 1. Outside Voice Messaging debugging, the error is one of the miscellaneous errors in VSS, which is due to the reported system slowdown that messages from the switch are out of sync with the external state of VSS. A time-out occurs in the VSS.
- Case 2. If your support organization has turned on Voice Messaging debugging, debug info SEER messages received are intended only for Nortel development use.
- Case 3. Supplementary data in the Present Call Information (PCI) message does not match the main data. This may be due to VSS not cleaning up properly during a previous call drop or tasking error.

Impact:
- Case 1. If the SEER is caused by an error, the severity depends on the error encountered. The VSS will be restarted in the worst case.
- Case 2. If the debugging flag has been turned on, the SEER merely indicates an incoming call to Meridian Mail.
- Case 3. None.

2734 Minor Error Action 14

Cause: A call could not be answered because it was already answered.

Impact: The answer call request from the voice service task will be rejected.

2737 Minor Error Action 5

Cause: The VSS failed to send the outgoing call progress status to voice service task because of a tasking error.

Impact: The call will be disconnected.

2744 Info Error Action 15

Cause: The VSS failed to acquire a voice port.

Impact: During loading phase, channel may not be enabled.
During call processing, call may be rejected. (MSM only.)

2760 Info Error Action 16

Cause: The requested channel capability and/or type is greater than available to the incoming call.

Impact: The caller is routed to an error service that indicates a mismatch of channel capability and/or port type.

Actions

Action 1 Contact your Nortel Networks support organization.

Action 2 Contact your Nortel Networks support organization.

Action 3 Contact your Nortel Networks support organization.

Action 4 If the error persists, contact your Nortel Networks support organization.

Action 5 If the error persists, disable and enable the port. If it still persists, contact your Nortel Networks support organization.

Action 6 Case 1. No action.
Case 2. Contact your Nortel Networks support organization.

Action 7 If the error persists, disable and enable the port. If it still persists, contact your Nortel Networks support organization.

Action 8 From the text of the SEER, determine what the error is. If unclear, contact your Nortel Networks support organization.

Action 9 Contact your Nortel Networks support organization.

Action 10 If the error persists, disable and enable the port. If it still persists, contact your Nortel Networks support organization.

Action 11 None. If the error persists, contact your Nortel Networks support organization.

Action 12 Verify that the data related to the voice operation is set up properly in the Organization profile and voice services profile. If the error persists, disable and enable the port.

Action 13 Case 1. Check the surrounding SEERs to determine the cause of the slowdown.
Case 2. Debug info SEER messages are intended only for Nortel development use.
Case 3. None.

Action 14 None

Action 15 Check to ensure that the voice ports are enabled (MSM only). If they are not, enable them. If they are, contact your Nortel Networks support organization. For non-MSM systems, do not enable voice ports. Report directly to your Nortel Networks support organization.

Action 16 Review the allocation of agents in the Channel allocation table (CAT) and ACD queues and their related services (FIS, FIM, VMU, and so on). Also review the use and allocation of channels for outcalling. Review the full and basic service needs. This problem indicates a mismatch of the requirements of the service defined and the channel acquired. For FIS, FIM, Voice menus and Time-of-day controller review the session profile in the VSDN table. If the allocation of channels is correct and the problem persists, contact your Nortel Networks support organization

Generic Telephony Interface (GTI)

Introduction

The Generic Telephony Interface (GTI) provides a procedural interface for Meridian Mail applications to gain access to call processing functions on different switches. The interface uses a universal set of commands. Call processing commands can be executed on voice channels or third party telephony devices.

GTI errors can prevent call processing commands from being executed.

A Class 28 SEER generally contains

- lower level return code
- DN involved in the command

Reports

2801 Minor Error Action 1

Cause: A software communication failure has occurred between the VSS and either the VP Handler or it's agent task. Any one of the following text messages could appear:

- Failed to rendezvous with Handler in SendCmd
  (Cmd, TskRc) <Cmd> <Return Code> <Handler Task Id>.
- Failed to rendezvous with Handler in SendVACmd
  (Cmd, TskRc) <Cmd> <Return Code> <Handler Task Id>.
- Failed to rendezvous with VP Handler in SendDigit
  <Return Code> <VPH Task Id>.
- Failed to rendezvous with VP Handler in CPTD
  <Return Code> <VPH Task Id>.
- Failed to rendezvous with Agent in MkConn
  <Return Code> <Agent Task Id>.
- Failed to rendezvous with Agent in FrConn
  <Return Code> <Agent Task Id>.

<Cmd> is a GTI command codes. Refer to the list that follows:

GTI Command Codes

0 No command.
1 Log in application against a DN.
2 Originate a call.
3 Transfer a call.
4 Complete the conference.
5 Revert to the original call that was on hold.
6 Disconnect a call.
7 Answer a call.
8 Update message waiting indicator.
9 Send a digit to the VP handler.
10 Query device status.
11 Activate/de-activate a feature associated with a key.
12 MM agent device maintenance.
13 Log out application from a DN.
14 Turn on system alarm.
15 Activate/de-activate call progress tone detection.
16 Make speech path connection.
17 Free speech path connection.
18 ACD agent action request.
19 Release channel request.
20 Reserve channel request.
21 Query DN info request.
22 Query XLA Info request.
23 Call redirection request.

Impact: The requested call processing operation will fail.

2803 Info Debug Action 2

Cause: The application used bad parameters (for example, Nil task id) when calling GTI procedures. This error indicates that the release tape may have problems. The extra integer in the text message is the Meridian 1/SL-1 identifier. Other integers are lower level return codes. For MSM systems the extra integer is the SMDI ID number.

Impact: The requested operation will fail.

2804 Info Error Action 3

Cause: The user profile did not have the correct message waiting indicator (MWI) link id, or the message waiting indicator server task did not exist.

Impact: The message waiting indicator cannot be set properly, and hence will not be updated.

Actions

Action 1 Contact your Nortel Networks support organization.

Action 2 Contact your Nortel Networks support organization.

Action 3 Check the user profile. If this does not solve the problem, contact your Nortel Networks support organization.

Administration Base (AD)

Introduction

The Administration Base (AD) is a layer of software that stores and retrieves the Organization Profile (customer and system) and Personal Profile files. It uses the file system and the Organization Directory (OrgDir or DR).

If the problem is with the reading or writing of a personal profile, only one user will be affected. If the problem involves the customer profile, operation for that particular customer will be affected. If the problem involves the system profile, operation of the entire system may be affected.

A Class 30 SEER generally contains

- an indication of which AD operation failed
- a lower level return code

Most of the following codes are return codes rather than SEERs; however, they are in this section of the manual because they are reported by other applications and their SEERs and may be used for debugging purposes.

Reports

3001 Minor Error Action 1

Cause: An error occurred obtaining the file ID of a personal profile.

Impact: The personal profile cannot be accessed. Only one user will be affected.

3002 Major Error Action 2

Cause: Number of bytes read is not as expected.

Impact: There appears to be an inconsistency in the data requested by an application and the actual data returned to the application. If the problem is with a personal profile, only one user will be affected. If the problem involves the customer profile, operation for that particular customer will be affected. If the problem is with the system profile, then the operation of the entire system may be affected.

3003 Major Error Action 3

Cause: An error occurred when an application tried to open a customer profile but did not specify a valid customer.

Impact: The operations that the application was attempting to perform on the intended customer profile cannot be performed, which may affect the entire customer group's users. .

3004 Major Error Action 3

Cause: An error occurred obtaining the file ID of a customer profile and that of the parent cabinet but did not specify a valid customer.

Impact: The operations that the application was attempting to perform on the intended customer profile cannot be performed, which may affect the entire customer group's users.

3005 Major Error Action 3

Cause: The pointers to profile(s) have not been set up properly.

Impact: The operations that the application was attempting to perform on the intended profile(s) cannot be performed, which may affect a single user, a customer group, or the entire system, depending on whether the application was trying to access the personal, customer, or system profiles. The probable cause of this problem is a programming error, which can only be fixed by your Nortel development organization.

3006 Major Error Action 4

Cause: The system profile could not be updated with the information in the system record file.

Impact: If this problem occurs after initial installation, conversion, or upgrade/expansion then the system profile will not reflect the installation of any new features, languages, or switches.

3007 Minor Error Action 5

Cause: The personal profile to be added already exists on the system.

Impact: This should cause no major problems as the personal profile already exists, so any further operation on the profile should be successful.

3008 Minor Error Action 6

Cause: The customer profile to be added already exists on the system.

Impact: This should cause no major problems as the customer profile already exists, so any further operation on the profile should be successful.

3009 Major Error Action 7

Cause: This error occurs when an application tries to read from a personal profile specifying a user class other than the Personal Class, but failed to supply a pointer to the file that contains the desired class of service record.

Impact: The immediate impact is that the intended operation cannot be performed. However, this does not mean other applications cannot read records from the personal profile in question. The problem lies with the first application only.

3010 Minor Error Action 8

Cause: This error occurs when an application tries to read from a personal profile and is supplied with an invalid class of service number. Please note that this does not mean a wrong number, but an invalid number, i.e. a number that could not possibly be a class of service number.

Impact: The immediate impact is that the intended operation cannot be performed, but it only affects a single personal profile.

3020 Major Error Action 9

Cause: Unable to retrieve a class of service record from the specified organization profile. This can occur when an application tries to read the COS record or when an application tries to read the personal profile of a user that belongs to a class other than the Personal Class.

Impact: If the problem lies with the application, then only the intended operation will fail. However, if the class of service record had been accidentally deleted, then all users who belong to the deleted class will be affected.

3021 Major Error Action 9

Cause: Unable to update a class of service record from the specified organization profile. This can occur when an application tries to update the COS record.

Impact: If the problem lies with the application, only the intended operation will fail. However, if the class of service record had been accidentally deleted, then all users who belong to the deleted class will be affected.

3022 Major Error Action 10

Cause: Unable to locate the COS offset record, which means the entire COS data structure in the specified organization profile is now corrupted.

Impact: All previously defined COS records will now be inaccessible.

3023 Major Error Action 10

Cause: The retrieved class of service record from the specified organization profile is not of the right length. This can occur when an application tries to read the COS record or when an application tries to read the personal profile of a user that belongs to a class other than the Personal Class.

Impact: This usually occurs when the specified COS record has been corrupted, All users who belong to that class will be affected.

3024 Minor Info Action 11

Cause: Unable to delete a specified COS record either because no such record exists, or because the COS record still contains valid users.

Impact: This return code means that the specified COS record cannot be deleted while it contains valid users.

3025 Minor Error No Action

Cause: An application tried to add another customer to the system when the system had been defined as a single customer system.

Impact: The second customer cannot be defined, since the system is supposed to be a single customer system.

3026 Minor Error No Action

Cause: An application tried to add a defined customer to the system.

Impact: The request to add the existing customer cannot be completed as the customer already exists.

3027 Minor Error Action 3

Cause: An application specified an invalid record when it attempted to add a component record that has COS fields in it.

Impact: The operation the application was attempting to perform affects only personal profiles, which means only individual users are affected.

3030 Critical to minor Error Action 12

Cause: Unable to install the language records in the system profile.

Impact: The language records in the system profile are needed for the modification of both the customer and personal profiles. Without them, voice messaging cannot use that particular language to communicate with a user. If this error occurs during initial installation, then the error is Critical. If it occurs during upgrades or feature expansion and the second return code is something other than this value, then the error is Major. If the second return code is the same as this code, then it is a Minor error caused by the number of records in the system profile being greater than the number of languages specified in the system record file. Since there are already more records than specified by the system record file, the impact should be minimal.

3031 Major Error Action 12

Cause: Unable to install the switch records.

Impact The switch records that were not installed would affect the voice channels that are connected to those switches. Without the records, the system cannot communicate with those switches, thus rendering those voice channels useless. The voice channels that are connected to switches whose records are in the system profile would not be affected.

3032 Minor Error Action 12

Cause: Unable to install the font record in the system profile.

Impact: The font record is not used by any application. It is only used to inform the system administrator which fonts are installed on the system; therefore, the only impact would be the system administrator not knowing which fonts are available for use.

However, if the root cause of the problem is the absence of the data files, then those missing data files would affect the entire fax feature. If the second return code is also 3032, then it means either the data in the font data file is not valid or that there are too many fonts on the system.

3051 Minor Error Action 13

Cause: An error occurred accessing the Organization Directory (DR).

Impact: Operation of the Organization Directory fails. This error only occurs when invoking the utility, AD_UTIL, so it should have minimal impact on the system.

3070 Major Error Action 14

Cause: A major error caused the conversion process to abort.

Impact: This occurs during conversion of profiles from one release to the next. If conversion fails then the affected profiles will not be consistent for the new release.

3071 Minor Error Action 15

Cause: Minor errors occurred during the conversion process; however, none were serious enough to cause the conversion to abort.

Impact: This occurs during conversion of profiles from one release to the next. Usually this return code is encountered when there are entries in the profile that the conversion program cannot convert, which require manual conversion by the administrator.

3072 Minor Error Action 16

Cause: During the addition of a customer profile, the automatic pseudo-random generation of the Password Prefix field for a customer group failed to create a password prefix that is four digits in length.

Impact: The level of password security for new users created for the customer group may not be as high as desired because either no prefix was able to be created, or some prefix less than four digits was created.

Actions:

Action 1
1. Try the operation again.
2. Look up the lower level return code in its associated section of the SEERs manual and take the action appropriate for that return code.
3. If the problem persists, re-add the user under a new mailbox number. Existing messages will not be available under the new mailbox.
4. If the problem continues to occur, contact your Nortel Networks support organization.

Action 2 Contact your Nortel Networks support organization and give the support personnel the name of the file and the particular record that caused this error to occur.

Action 3 Note the SEER number that accompanies this return code and contact your Nortel Networks support organization with this information.

Action 4 Contact your Nortel Networks support organization and report the problem. Report any SEERs and return codes.

Action 5
1. See if the user can be located through the MMI via the Local User Find screen.
2. If yes, then look at the profile to see that it contains all the data that should be in there.
3. If not, modify the profile to include all the right data.
4. If the user cannot be found, contact your Nortel Networks support organization to inform them of the problem.

Action 6
1. See if the customer can be located through the MMI via the Customer Administration Find screen.
2. If yes, look at the profile to see that it contains all the data that should be in there.
3. If not, modify it until it contains the right data.
4. If the customer cannot be found, then contact your Nortel Networks support organization to inform them of the problem.

Action 7
1. Change the user to the Personal Class and try again. Note if the operation succeeds under these circumstances.
2. Regardless of the success of 1, note the SEER number that accompanied this return code and contact your Nortel Networks support organization and give them the information.

Action 8 Faulty data setup is the most likely cause of the problem.
1. Using the MMI, change the user's COS assignment to put the right value into the user's COS field.
2. Try the operation again.
3. If the operation fails again, note the SEER that accompanies this return code and contact your Nortel Networks support organization and give them the information.

Action 9
1. Verify that the class of service record does exist using the MMI, Class Of Service administration.
2. If the record is not there, try adding it back into the system via the MMI.
3. If the record is there, there is a problem with the application that was trying to access the COS record or the personal profile. Note the SEER number that accompanies this return code. Contact your Nortel Networks support organization and give them the information.

Action 10 Contact your Nortel Networks support organization and inform them of the situation.

Action 11 If the COS record exists, and the administrator really wishes to delete it, first un-assign all users who currently belong to this class before attempting the deletion again. The deletion is successful if the COS record does not exist.

Action 12 Retry the operation (initial installation, upgrade, or feature expansion). If it fails again, record all SEERs and return code information, and contact your Nortel Networks support organization.

Action 13 Look up the lower level return code in its associated section of the SEER manual. Take action appropriate for that return code or contact your Nortel Networks support organization.

Action 14 Contact your Nortel Networks support organization. Record and report any additional SEERs which may help to clarify the problem.

Action 15 Examine the log file and identify which profiles need manual intervention. Go through those profiles and make the necessary changes.

Action 16 Using the Customer Administration screens in the MMI, check the password prefix field and change the value as desired. Up to four digits may be used, or none at all.

Directory Server (DR)

Introduction

The Directory Server

- provides an Organization Directory which includes names, phone numbers, personal verifications for people and services in the organization (users and non-users) and system distribution lists
- provides a User Directory
- provides a system database storing voice services, VSDN entries, customers and classes of service

The Directory subsystem has two parts:

- a server (DR_SERVER) that caches a directory index and performs all directory updates
- client software to support a user's access to the directory

Directory server failures may lead to

- inability of users to log on
- problems with users' accounts
- inability to update the directory
- problems with certain voice services

A Class 31 SEER generally contains

- lower level return code
- name of a file, such as the secondary index file
- location of the error and time when the error was detected. For example: dr435 disp:34001 vers:88 means that a problem was detected in version 88 of file /1/dr/dr/dr435 at displacement 34001 bytes.

Reports

3105 Minor Error Action 1

Cause: Error starting Directory Server. The server could not allocate sufficient memory for its cache or working memory because of memory fragmentation, a change in system configuration or new directory entries taking up space.

Impact: If the cache could not be allocated, no directory operations will work and no users will be able to log on. If the working memory could not be allocated, you may be able to perform all operations except directory updates (including administration operations and the recording by users of personal verification names).

3106 Minor Error Action 1

Impact: Same as SEER 3105.

Cause: DR_Server could not allocate enough memory. See SEER 3105.

3107 Minor Error Action 1

Cause: The Directory Server could not allocate enough memory to run the update agent.

Impact: It will not be possible to update the directory.

3116 Minor Error Action 2

Cause: The Directory Server found a Filesystem error while accessing the directory file. The message may indicate an error during the Directory Server audit and the presence of duplicate entries.

Impact: Depends on the return code. Some entries may not be retrieved by their retrieval keys. Duplicate entries may be retrieved by some retrieval keys if the SEER text says “DUPS MAY EXIST”. Secondary index files may be corrupted and some users may be inaccessible.

3117 Minor Error Action 3

Cause: Bad Secondary Index File. The primary index is inconsistent with the secondary index files.

Impact: Some entries may not be retrieved.

3118 Minor Error Action 4

Cause: The directory update task was unable to obtain the entry to update using the pull mechanism.

Impact: The directory update will fail. The specific failure will depend on the type of operation attempted. For example, a user may not have been added or changed, a class of service may not have been added or changed, class of service administration may fail, a new spoken name may not be added for a user, and so on.

3119 Minor Error Action 5

Cause: The directory server was unable to return directory operational measurements to an application by using the push mechanism.

Impact: The application will not receive operational measurements from the directory. In general, this will not effect service since directory OMs are maintained for informational purposes only.

3122 Minor Error Action 6

Cause: Internal Software Consistency Failure.

Impact: Some Directory Server update operations may not work.

3123 Minor Error Action 7

Cause: The directory entry is inconsistent with the available keyboard language modules. This SEER may indicate a corrupt directory.

Impact: Some Directory Server update operations may not work.

3124 Minor Error Action 6

Cause: Directory entry indexed under unknown key type. May be caused by a corrupted directory file or software that was incorrectly converted from a previous release.

Impact: Some Directory Server update operations may not work.

3126 Minor Error Action 6

Cause: Entry without ClientID. This SEER may indicate a corrupt directory.

Impact: One or more entries may not be accessed.

3127 Minor Error Action 6

Cause: Inserting Key Out of Order—internal consistency error. This SEER may indicate a corrupt directory.

Impact: Some update operations may not work.

3130 Minor Error Action 8

Cause: The application software is not using the Directory Server properly.

Impact: The application operation will not work.

3131 Minor Error Action 8

Cause: An Application is not providing enough memory for directory access.

Impact: The application will not be able to access the directory.

3132 Minor Error Action 8

Cause: The application is trying to use an invalid DRCB. Usually, this is because of a previous Directory Server error; if so, you may ignore this error.

Impact: Subsequent Directory Server accesses by the application software in this session will not work. If another DR SEER precedes this one, investigate it and ignore this SEER.

3134 Minor Error Action 9

Cause:

1. Directory Server unavailable. The SEER message may include a return code. If the SEER came from the server, this code indicates a reason for server termination. If the SEER came from the client, this code details a communication problem (taskresult) between client and server.
2. If the text says "***DR_SERVER ERROR***", an error occurred while starting up the Directory Server. The server will terminate with an exception and should restart automatically.
3. If the text says "DR Error", the client software could not communicate with the Directory Server. The SEER also includes the task result from the failed communication. Usually this means that the Directory Server is not running.
4. If the text says "New System ID allocated: nnn", then a new system ID has been generated to allow unique clientIDs to be created. Occurs normally when systems are installed. (Severity level = System Info.)
5. If the text says "***DR ERROR GETTING LOCAL SITEID***", then the DR_Server could not get the local site ID from the network data base but will start up anyway. Addressing may be affected.
6. If the text says "DR ERROR READING dr0 FILE, TRYING dr00", then the DR_Server could not read its primary index file and will try its backup copy /1/dr/dr/dr00.
7. If the text says "DR ERROR READING dr00 FILE, TRYING DUMMY", then the backup copy of the primary index file was also bad. An audit will be performed to recreate it.
8. If the text says "***DR SERVER COULD NOT START***", then the DR_Server could not get its primary index file. It kills itself and will be automatically restarted.
9. If the text says "DR CONTROL FAILURE", then an attempt to perform a control operation on the DR_Server failed for the reason given. The return code will be a task result encountered by the client trying to communicate with the DR_Server.

Impact: Unless the server recovers, no directory accesses will work.

3135 Minor Error Action 10

Cause: The Update Agent was unavailable in the DR_Server. The SEER occurs normally as part of night-time Directory Server audit. It may also appear if a DRONLINERELOAD is performed and the reloaded directory is not switched over. At any other time, this SEER may indicate a more serious problem. Sometimes a return code is provided. This code

gives a reason for server termination or details a communication problem between the client and server.

Impact: The directory may not be updated (including the recording of personal verification names) until the update agent becomes available again. This SEER is normal during the night-time and online DR reload. If this SEER occurs at other times, there may be a serious problem.

3138 Minor Error Action 6

Cause: Secondary index file not found. May indicate corrupted directory.

Impact: Some directory operations will not work.

3139 Minor Error Action 6

Cause: Secondary Index File Too Short (readKeyBlock).

Impact: Some directory operations will not work.

3140 Minor Error Action 6

Cause: Missing Secondary Index File (open1stFile).

Impact: Some directory operations will not work.

3142 Minor Error Action 6

Cause: Bad Secondary Index File—Entry Length Bad (unPackAttr).

Impact: Some directory operations will not work.

3143 Minor Error Action 6

Cause: Bad Secondary Index File—Bad Packed Entry (scUnPack).

Impact: Some directory operations will not work.

3144 Minor Error Action 6

Cause: Bad Secondary Index File—File Too Short (unPackFilter).

Impact: Some directory operations will not work.

3145 Minor Error Action 6

Cause: Bad Secondary Index File—Entry Too Short (unPackFilter).

Impact: Some directory operations will not work.

3146 Minor Error Action 6

Cause: Bad Secondary Index File—File Too Short (unPackFilter).

Impact: Some directory operations will not work.

3147 Minor Error Action 6

Cause: Bad Secondary Index File—Entry Too Big (unPackFilter).

Impact: Some directory operations will not work.

3148 Minor Error Action 6

Cause: Bad Secondary Index File—File Too Short (unPackFilter).

Impact: Some directory operations will not work.

3149 Minor Error Action 6

Cause: Bad Secondary Index File—Bad Entry Format (unPackFilter).

Impact: Some directory operations will not work.

3150 Minor Error Action 6

Cause: Bad Secondary Index File—Missing List End (skipList).

Impact: Some directory operations will not work.

3151 Minor Error Action 6

Cause: Bad Secondary Index File—Wrong List End (skipList).

Impact: Some directory operations will not work.

3152 Minor Error Action 6

Cause: Bad Secondary Index File—No List End (expandMembers).

Impact: Some directory operations will not work.

3153 Minor Error Action 6

Cause: Bad Secondary Index File—File Too Short (nextRef).

Impact: Some directory operations will not work.

3154 Minor Error Action 6

Cause: Bad Secondary Index File—File Too Short (dr_References).

Impact: Some directory operations will not work.

3159 Minor Error Action 8

Cause: Consistency Error—Couldn’t make key (processPattern).

Impact: Unpredictable.

3160 Minor Error Action 8

Cause: Consistency Error—Couldn’t make key (processPattern).

Impact: Unpredictable.

3164 Minor Error Action 11

Cause: A retrieval operation failed. Sometimes, this error occurs if an entry was improperly added to the directory. For example, initials were improperly included in the given name or surname fields or a generational qualifier, such as Jr. or Sr., was improperly included in the surname.

Impact: A consistency check of the directory found an entry which cannot be retrieved by all its keys. If the return code is 1, 2, 3, or 4, and the entry is a user, that user may be unable to log on. Otherwise, the only inconvenience may be that the entry is not visible in some administrator retrievals.

3166 Minor Error Action 11

Cause: Error Checking a Directory Entry—Missing Reference. A consistency check that was run on the directory found an entry with inconsistent links to other entries (for example, contacts, manager or list membership). The SEER text includes the surname and clientID of the entry and a return code indicating which retrieval operation failed.

Impact: Further updates or retrievals on this entry or those related to it may not work.

3167 Minor Error Action 11

Cause: A consistency check was performed and it was discovered that two copies of the same entry were indexed under the same key. The SEER includes a return code indicates which retrieval operation failed.

Impact: The entry may be retrieved twice when certain retrievals are done.

3168 Minor Error Action 11

Cause: Error Checking a Directory Entry—Entry not in list. The SEER includes a return code indicating which retrieval operation failed.

Impact: A single entry is shown to be in a list when in fact it is not. Attempts to change or add the entry may fail.

3171 Minor System Action 12

Cause: This SEER number is used by the on-line DR reload software in DRFIX_PKG to report status. This SEER is generated by one of the two commands DRONLINERELOAD or DRSWITCHDIR for the following reasons:

1. start of on-line directory reload, from DRONLINERELOAD
2. end of on-line directory reload, from DRONLINERELOAD
3. after directories are successfully switched, for DRSWITCHDIR
4. failure with on-line directory reload, from DRONLINERELOAD
5. after errors adding entries to second directory, from DRONLINERELOAD

6. failure switching directories, from DRSWITCHDIR

Impact: Cases 1-3 SEERs report status in normal operation.

Case 4. Some problem setting up the second directory. Normal system operation will not be affected, but the reload will fail. The return code and screen text will indicate the cause of the problem.

Case 5. Entries from the original directory are not propagated to the second directory. This could mean a user/voice service/system distribution list is lost.

Case 6. If the severity is minor, the problem switching directories occurred before the directories were actually switched, so the original directory is still in place. If the severity is major, then the directory switch failed in an intermediate state and the new directory may be partially installed. The screen text and return code will indicate the cause of the problem.

Actions

Action 1 Disable MSP1. When MSP1 is out of service, re-enable it to eliminate memory fragmentation. If the error persists, contact your Nortel Networks support organization.

Action 2 Look up the return code in Appendix A and try the indicated action. If the error occurred during a Directory Server audit, see if it recurs the next time the audit is run. The “DUPS MAY EXIST” message indicates that the problem caused the Directory Server audit to create duplicate entries. These may be repaired automatically as the directory is updated and audited. If necessary, restore from a consistent backup or recreate the directory.

Action 3 The DR primary index file is rebuilt the nightly DR audit. The nightly DR audit does not always run, however, if the directory is already balanced. The audit can be run, preferably during off-hours - from the “Rebalance directory” tool at TOOLS level. If the problem is not fixed then restore VS1 from backup.

Action 4 Retry the operation. If not known, the operation can be determined by matching this SEER (3118) with another SEER that reports 3118 as a return code. If the remote node or invoking task is alive and receives the error, then the client will report the error with 3118 as part of its SEER. The severity of the problem will be based on the severity of the operation of the client.

Action 5 Retry the operation. If not known, the operation can be determined by matching this SEER (3119) with another SEER that reports 3119 as a return code. If the remote node or invoking task is alive and receives the error, then the client will report the error with 3119 as part of its SEER. The severity of the problem will be based on the severity of the operation of the client.

Action 6 Contact your distributor or Nortel Networks support organization immediately. *DO NOT* update the directory, add users, services, system distribution list, etc.! The distributor can rebuild the directory using the on-line DR Reload utility available at the RSC login. If the distributor encounters errors running the online reload, contact your Nortel Networks support organization.

Action 7 Contact your Nortel Networks support organization.

Action 8 Investigate previous Directory Server error. If there was none, contact your Nortel Networks support organization. You may be able to clear recurring problems by disabling and re-enabling the node issuing the SEER.

Action 9 Look up the return code in Appendix A. If the problem persists, contact your Nortel Networks support organization.

Action 10 Look up the return code. Find out if an audit is actually running. If so, wait for it to complete.

1. If the text says “***DR LANGUAGE TABLE REMOVED***”, an attempt was made to start the Directory Server with fewer language modules. Updates are disabled to prevent directory corruption.
2. If the text says “DR Audit Begun: []”, a Directory Server Audit has been started to re-balance the directory. Updates will be disabled until the audit is complete. The audit parameters (if any) are displayed between the square brackets.(No action is required.
3. If the text says “DR Audit Done, n passes”, the Directory Server Audit finished after the indicated number of passes through the secondary index files. Updates should now be re-enabled. If the directory is still not completely re-balanced, the SEER will include “n OFlows” giving the number of secondary index files which are still larger than optimum size. If the audit was stopped because it took longer than the audit time limit, the SEER will include “TIME”.
4. If the text says “***DR Entry Duplication Possible***”, the Directory Server Audit stopped in such a way that might have resulted in duplicate entries being created in the directory.
5. If the text says “DR Update Agent—class:n EXCEPTION,type:m”, a runtime error occurred in a Directory Server task. The SEER may instead indicate an exception

in the Cache Mgr or Auditor tasks. If n=4, then m is a file system or Directory Server return code, otherwise it identifies the runtime error detected by the operating system. The Directory Server will try to recover by restarting the failed task.

6. If the text says “***error starting DR audit”, the Directory Server Audit could not be started due to the error given as the return code.
7. If the text says “***DR update agent save error”, the update agent could not save the server state for the reason given as the return code.
8. If the text says “***could not start DR update agent”, the Directory Server update agent could not be started for the reason given in the return code. No directory updates will be possible until the problem is corrected.
9. If the text says “***DR Audit—***” “n DUP ENTRIES NOT SPILLED BACK” (or FWD) indicates that the auditor found duplicate entries in the directory and eliminated *n* of them.
10. If the text says “DR Error” indicates that the client software had a problem communicating with the update agent task in the Directory Server. The task result is given as the return code. This error can result from trying to perform an update while updates are disabled or during a Directory Server audit.
11. If the text says “Error reading /1/dr/updates/log, try spare newlog”, then the DR_Server encountered an error reading its log file and is trying to read the backup log file.
12. If the text says “Error copying /1/dr/updates/newlog”, then the backup log file was bad too. The extra return code isolates the cause.
13. If the text says “DR Retried aborted xxxx”, where xxxx is “addEntry”, “delEntry”, “chgEntry”, “addMember”, or “delMember”, then the DR_Server has retried an update operation which was in progress when the system died. The surname of the directory entry may also be given. If the result code is zero, the retry was successful, and no action is required. Otherwise the retry failed.

Action 11 Using the MMI, try saving the user or item that reported problems without making changes. If the problem persists, contact your Nortel Networks support organization. Using MD-DR, try changing the entry to itself, being careful to use exactly the same values. If the problem persists, then try deleting the entry and adding it again with the same values.

Action 12 Cases 1-3. No action is required in normal operation.

Case 4. The second directory may not be set up due to insufficient disk space on VS1, insufficient memory on node 1 or other system errors. If disk space is insufficient, then free up the disk space required (the amount needed is indicated on the screen text) or run the offline directory dump and reload, DRDUMPDIR and DRRELOADDIR. If memory on node 1 is insufficient, disabling the channels on node 1 may help, or run the utility on a node other than node 1.

Case 5. Retry DRONLINERELOAD and answer no to the prompt asking to continue using the previous directory. If the failure repeats, identify the fix cause based on the return code.

Cases 6. Contact your Nortel Networks support organization.

Message Transfer Agent (MTA)

Introduction

The Message Transfer Agent (MTA) accepts voice mail from users and the Network Message Transfer Agent (NMTA), and delivers mail to the addressed recipients and the NMTA.

The MTA receives an argument string containing the number of delivery tasks required and a list of volume numbers. An MTA can transfer mail for several volumes. Each volume has an MTA cabinet which stores messages for delivery. The cabinet is: /<volume number>/mt. A volume is always associated with the same MTA.

Failure of an MTA will block mail submission for all users on the MTA's volumes.

A Class 32 SEER may contain

- File ID
- Client ID
- Mailbox number
- Directory number
- Site number; if networking is not enabled, the site number is "0"
- Lower level return code
- Task result

Identifying a user

If a SEER shows a Client ID rather than a user's mailbox number and you wish to identify the user, follow these steps:

1. Run utility MD_DR.
2. Enter "heap 100".
3. Enter "dropen".
4. Enter "drsimpf CID" <Client ID>.

Reports

3201 Info Debug Action 1

Cause: The NDN message cannot be delivered.

Impact: The message is printed because the NDN message was not received by the originator.

3203 Minor Error Action 1

Cause: OM statistics collection or session trace failed.

Impact: In the case of a session trace error, the record for the message delivery is not available via the session trace tool. However, the appropriate data is in the SEER.

3204 Minor Error Action 1

Cause: This SEER printed when a message erroneously created an NDN.

Impact: None

3209 Minor Error Action 1

Cause: An exception occurred in a delivery task.

Impact: The affected delivery task will be restarted if possible. A message may not be delivered due to the failure and if so an NDN will be generated.

3210 Minor Error Action 2

Cause: Low level system error, or broadcast messages are delivered in phases.

Impact: A message or some broadcast messages will be delivered late.

3212 Minor Error Action 3

Cause: Low level system error.

Impact: Some messages might not be delivered.

3213 Major Error Action 4

Cause: Fails to access user profile.

Impact: One or more users cannot receive messages.

3220 Minor Error Action 1

Cause: Low level system error.

Impact: Users will not be notified on their “other” phones or pagers about a message that has arrived in their mailbox.

3221 Minor Error Action 1

Cause: Error occurs in the distribution list VA.

Impact: The message will not be delivered to users within a distribution list. An NDN may be generated.

3250 Error Minor Action 14

Cause: MTA not found.

Impact: None.

3260 Minor Error Action 5

Causes: One of the following Non-Delivery Notification (NDN) errors:

1. The disk volume is full.
2. The heap space is insufficient.
3. The disk is not operational.

The return code will isolate the cause.

Impact: The NDN message will be lost.

3261 Minor Error Action 1

Cause: Error in reading recipient addresses in the message.

Impact: One or more recipients will not receive the message. NDNs will be sent back to the sender for messages not delivered.

3263 Info Admin No Action

Cause: Could not send a message to a guest user on a hospitality system. The user may have checked out.

Impact: None

3264 Minor Error Action 1

Cause: The message cannot be sent, and the originator will receive an NDN message.

Impact: None.

3265 Minor Error Action 1

Cause: Message cannot be delivered to System Address Types.

Impact: None.

3268 Minor Error Action 1

Cause: Copy table is not large enough to handle all recipients.

Impact: One or more recipients will not receive the message.

3269 Minor Error Action 1

Cause: The list expansion table is not large enough to handle all list members.

Impact: Recipients in one or more lists specified in the message will not receive the message.

3272 Minor Error Action 6

Cause: A problem in delivering messages.

1. If the text says: “Cab Not accessible”, MTA could not gain access to the cabinet.
2. If the text says: “PP”, MTA could not gain access to the Personal Profile.
3. If the text says: “Cp to Vol”, a volume could not be copied.
4. If the text says: “Close on Vol”, a volume could not be closed.
5. If the text says: “Dup Sup Er”, a duplicate message could not be suppressed.
6. If the text says: “Add file fails”, a file could not be added to a volume.
7. A distribution list could not be expanded.

The problem may result from corrupted file system data. The return code will isolate the cause.

Impact: Some users will not receive their messages.

3273 Major Error Action 7

Cause: File system error most likely caused by corrupt cabinet.

Impact: Users of the volume will not be able to send messages and may also lose messages.

3274 Minor Error Action 8

Cause: Notification failed because of a General Telephony Interface (GTI) or Voice Channel Allocator (VCA) error. The return code will isolate the cause.

Impact: If error occurred during a VM session, a recipient will not be notified of the new message. If MWI is mentioned in the SEER, the user’s message waiting indicator may not be set properly.

3275 Minor Error Action 1

Cause: Delivery task crashed and cannot be restarted. This will only occur after an Exception (3209) and indicates that the delivery task was not currently working on a message when the error occurred.

Impact: Message delivery efficiency will be reduced because there is one less delivery task.

3276 Minor Error Action 9

Cause: Volume ID appears more than once in the MTA argument list. In other words, more than one MTA has been assigned the same volume.

Impact: Some heap memory will be used up because the MTA sets aside heap for each volume.

3278 Major Error Action 1

Cause: Error occurred in VA (deferred delivery queue).

Impact: The MTA will try to rebuild the deferred delivery queue. During the rebuild, the MTA will not accept mail.

3279 Major Error Action 10

Cause: Error occurred in accessing the organization directory.

Impact: The delivery task will shut down and MTA will try to restart it.

3280 Minor Error Action 1

Cause: An error occurred in converting a remote message into local format.

Impact: The message cannot be delivered to this node. The originator will receive an NDN.

3281 Major Error Action 10

Cause: Error in file handling or cabinet operation, which is indicative of an unstable file system. The return code will isolate the cause.

Impact: Other errors are likely to occur.

3282 Critical Error Action 10

Cause: User profile is not consistent with organization directory.

Impact: One user cannot send messages.

3285 Major Error Action 11

Cause:
1. No delivery tasks are specified.
3. No volumes are specified.
4. More than twenty volumes are specified.
5. Invalid characters are in the argument list.

Impact: MTA will not run.

3286 Critical Error Action 12

Cause: MTA cannot allocate memory on the node.

Impact: MTA will not run.

3287 Critical Error Action 1

Cause: MTA cannot register with the name server.

Impact: The MTA will not run.

3288 Critical Error Action 13

Cause: Delivery task shut down and cannot be restarted. This will only occur after an Exception (3209) and indicates that the delivery task was not currently working on a message when the error occurred.

Impact: MTA will shut down.

3289 Critical Error Action 15

Cause: The MTA failed to start.

1. If the text says “Int DT: TR: <Taskresult>”, a delivery task failed to start.
2. If the text says “OrgProf:RC”, organization profile access failed.
3. Volumes may already have been registered.

The task result or return code will isolate the cause.

Impact: MTA will shut down.

3290 Critical Error Action 13

Cause: Failed to rebuild the deferred message queue.

Impact: None

3299 Info Debug Action 1

Cause: MTA lost memory.

Impact: The MTA will restart itself to retrieve the lost memory.

Actions

Action 1 Contact your Nortel Networks support organization if this happens repeatedly.

Action 2 None. If the problem is chronic, contact your Nortel Networks support organization.

Action 3 Look up the return code for more information. If necessary, contact your Nortel Networks support organization.

Action 4 Contact your Nortel Networks support organization.

Action 5 Inform the sender (whose mailbox number is provided in SEER) of loss of the message.

Case 1. Call administrator to remove messages.

Case 2. Contact your Nortel Networks support organization.

Case 3. Check other SEERs for more information.

Action 6 Check the return code for further information and contact your Nortel Networks support organization.

Action 7 Contact your Nortel Networks support organization.

Action 8 Contact your Nortel Networks support organization.

Action 9 Contact your Nortel Networks support organization.

Action 10 Check the return code in Appendix A of this manual for more information. Examine surrounding SEERs, which may indicate a DR problem. If the source of the problem is not apparent, contact your Nortel Networks support organization.

Action 11 Contact your Nortel Networks support organization.

Action 12 Contact your Nortel Networks support organization.

Action 13 Contact your Nortel Networks support organization to have them restart the MTA.

Action 14 Contact your Nortel Networks support organization to have them restart the MTA.

Action 15 Contact your Nortel Networks support organization.

Class 33

Operational Measurements (OM)

Introduction

OM is a multi-server of the Program Resource Manager. The OM collects data, calculates statistics and reports on Voice Messaging (VM) and MISA Volume Servers (VS) traffic, and channel and service usage from Voice Channel Allocator (VCA).

The administrator uses the MMI to schedule traffic reports for VM and VS. The MMI is also used to enable and disable data collection and the capability of generating reports.

The OM

- tracks the schedule
- collects traffic data from VM, VS, VCA
- stores traffic data as per schedule if enabled
- stores VM session data if enabled
- starts the user usage data collector at night

OM errors have a minor impact on the system, since OM is a self-contained subsystem which shuts down properly in the event of a serious error.

A Class 33 SEER usually contains a lower level return code, which is a disk data interface (class 10) return code.

Reports

3311 Minor Error Action 1

Cause: Tasking Error. Failure to communicate with the OM Server.

Impact: OM options will not be updated.

3312 Minor Error Action 1

Cause: OM Server is not running. Task failed to locate the OM Server.

Impact: OM options will not be saved, or one billing record will be lost.

3317 Minor Error Action 2

Cause: Error occurred while storing the OM data. If the text indicates failure to commit the data to disk, the current data will be lost. If the text indicates failure to open the cabinets, data will not be written to disk. Otherwise, the OM recovers by writing to a new file. The return code isolates the cause.

Impact: The OM data to be stored during the failure is lost.

3318 1. Minor Error Action 12

2. System Info Action 12

Cause: Case 1: This error occurs when there is a problem sending OM data to the SNMP server.

Case 2: This SEER is printed if the sending of OM data resumes.

Impact: Case 1: OM data (network traffic statistics) on the PC is not updated.

Case 2: OM data on the PC is now updated.

3321 Minor Error Action 3

Cause: Error in deleting old traffic, billing, or usage files.

Impact: VS1 will eventually fill up and OM collection will stop.

3331 Minor Error Action 4

Cause: Could not access the system profile. The return code isolates the cause.

Impact: OM Server will not collect any data until restarted.

3332 Minor Error Action 5

Cause: The OM server could not locate a server at the traffic interval. The return code isolates the cause. The problem may be that

- Data could not be collected due to disabling of option
- Server for given feature is not running
- Traffic data files could not be obtained

Impact: OM data for the request service will not be collected.

3333 Minor Error No Action

Cause: Failure to write OM data to disk.

Impact: OM data will be lost for the specified interval.

3334 Minor Error Action 2

Cause: Error occurred in OM Server while attempting to accumulate services detail (i.e., peg) data.

Impact: The OM Services detail report will be incorrect for the interval during which this SEER is issued.

3338 Minor Error Action 6

Cause: Failure to register the OM server.

Impact: OM Server will not start.

3341 Minor Error Action 7

Cause: PRM failed to start OM_COLLECT.

Impact: User usage data will not be collected for the previous day.

3360 Minor System Action 8

Cause: Information SEER on the status of the OM_COLLECT program.

Impact: None.

3362 Minor Error Action 2

Causes:

1. Could not open, read, update, or close the organization profile
2. Store Record Failure
3. Unable to get amount of voice space used
4. Could not close save file
5. Could not get org profile FID
6. Could not open cabinet
7. Unable to get billing class
8. Processing error
9. Unable to initialize
10. Could not read billing record

The return code isolates the cause.

Impact: Could not create user usage reports from billing information.

3366 Info System No Action

Cause: Information SEER on the status of the OM_SERVER program.

Impact: None

3367 Minor Error Action 9

Causes: 1. Error occurred in OM audit.

2. No memory to start OM server.

Impact: Case 1. OM audit will not clean up old data.
Case 2. OM server will not start.

3369 Minor Error Action 2

Causes:
1. DD_read failed
2. Find/get record failed
3. Unable to find record
4. Unable to close last file from cabinet
5. GETFID failed
6. Open cabinet failed

The return code isolates the cause.

Impact: Problem with reading traffic or billing file. Data cannot be retrieved.

3375 Minor Error Action 2

Cause: Error in adding the billing or traffic records.

Impact: OM data will not be committed to disk. File may be corrupted.

3391 Minor Error Action 10

Cause: Failed to locate OM_SERVER.

Impact: The OM billing record will not be sent to the OM_SERVER.

3393 Minor Error Action 1

Cause: Failed to locate OM_SERVER.

Impact: The OM billing record will not be sent to the OM Server, or MMI could not update the OM schedule.

3394 Info Error Action 11

Cause: An error occurred during the conversion of OM data.

Impact: The conversion of an OM file will not be completed. OM user usage data will be lost. If there are successive 3394 SEERs, the maximum data loss will be three days of OM user usage data.

Actions

Action 1 If error persists, contact your Nortel Networks support organization.

Action 2 Look up the return code for specific information. If unclear, contact your Nortel Networks support organization.

Action 3 If this SEER persists over several days, contact your Nortel Networks support organization.

Action 4 Look up the MISA return code for specific information.

Action 5 Look up the return code for specific information. If unclear, contact your Nortel Networks support organization.

Action 6 Contact your Nortel Networks support organization.

Action 7 Contact your Nortel Networks support organization.

Action 8 Depends on SEER text. If SEER indicates that OM_COLLECT was not started, then take action according to problem as recorded in SEER text. If unclear, contact your Nortel Networks support organization.

Action 9 Case 1. SEER text will indicate what types of files were not deleted, for example, billing, nm usage, and traffic files. If the problem persists for several days, contact your Nortel Networks support organization.

Case 2. Contact your Nortel Networks support organization

Action 10 Contact your Nortel Networks support organization.

Action 11 Look up the return code for specific information. If the return code is 3397, no action is required. Otherwise, contact your Nortel Networks support organization.

Action 12 Check to see if there is any SNMP server (class 88) related SEERs. If so, try to resolve the problem with the SNMP server. If the problem persists, contact your Nortel Networks support organization.

Class 34

Voice Channel Allocator (VCA)

Introduction

The Voice Channel Allocator (VCA) is responsible for allocating system resources such a Telephony Channels, DSP ports, and Time slots.

VCA Seer printouts are frequently accompanied with VCA Control Blocks. Each the control block contains the HWLOC of the affected device.

Reports

3420 Minor Error No Action

Cause: An internal error occurred (for example, tasking) causing an outcall to be delayed.

Impact: The outcall will immediately retry.

3440 Minor Error No Action

Cause: Sanity check on an internal table failed.

Impact: None. The internal table will be rebuilt.

3441 Minor Error Action 1

Cause: VSS tried to release a resource it did not own.

Impact: Request ignored by VCA.

3442 Minor Error Action 2

Cause: The VCA Control Block passed in by the client was invalid.

Impact: Request ignored by VCA.

3443 Minor Error Action 3

Cause: Internal Sanity check failed.

Impact: None

3445 Info/System No Action

Cause: VCA has finished recovering after a restart/recovery.

Impact: None

3446 Minor Error Action 4

Cause: A timeout has occurred during VCA/VCM recovery.

Impact: None

3447 Minor Error Action 5

Cause: Variable out of range.

Impact: Request ignored by VCA.

3452 Minor Debug Action 6

Cause: An outcall selected a port that was already in use.

Impact: None. It will retry operation.

3455 Critical Error Action 7

Cause: Could not read the hardware database at startup.

Impact: System will not function.

3461 Critical Error Action 8

Cause: There was no memory at startup for the VCA.

Impact: System will not function.

3464 Minor Error Action 9

Cause: A tasking error occurred. This may occur at startup, when the system is very busy or during system recovery.

Impact: Minimal

3465 Minor Error Action 10

Cause: Bad parameter passed in by client.

Impact: Request ignored.

3466 Minor Error Action 11

Cause: An unexpected event occurred.

Impact: Indeterminate.

3471 Minor Error Action 12

Cause: A device was in an incorrect state for the requested operation.

Impact: Minimal.

3475 Critical Error Action 8

Cause: There was no memory at startup for the VCA or there was some other initialization problem.

Impact: System will not Function.

3480 Minor Error Action 13

Cause: During a sanity check, an idle VSS was found to own an incorrect number of ports.

Impact: VSS is restarted.

3481 Minor Error Action 14

Cause: Could not find port in internal table to release.

Impact: None.

3488 Minor Error Action 15

Cause: Problem cleaning up dying program.

Impact: None.

3490 Minor Error Action 16

Cause: Internal Sanity Check failed.

Impact: None

3494 Minor Error Action 17

Cause: Unexpected device acquiring a timeslot.

Impact: None.

3495 Minor Error Action 18

Cause: Failed to PUSH OM or status PUSH to MMI.

Impact: Lose OM or status for period.

3497 Minor Error Action 19

Cause: Error occurred during recovery.

Impact: Indeterminate

3499 Minor Debug Action 11

Cause: An unexpected event occurred.

Impact: Indeterminate

Actions

Action 1 Disable and re-enable port/channel specified in SEER.

Action 2 Disable and re-enable port/channel specified in SEER.

Action 3 Disable and re-enable ports/channels specified in SEER.

Action 4 None

Action 5 None

Action 6 None

Action 7 Contact your Nortel Networks support organization.

Action 8 Contact your Nortel Networks support organization.

Action 9 Wait and disable and re-enable ports if necessary.

Action 10 Disable and re-enable port/channel.

Action 11 Disable and re-enable ports/channels if necessary.

Action 12 Disable and re-enable port/channel if it does not recover by itself.

Action 13 None

Action 14 Disable and re-enable the affected T1 channel.

Action 15 Disable and re-enable the channel.

Action 16 Disable and re-enable ports/channels if necessary.

Action 17 Contact your Nortel Networks support organization.

Action 18 If the problem persists, contact your Nortel Networks support organization.

Action 19 Disable and re-enable ports/channels if necessary.

SEER Server (SS)

Introduction

The SEER server collects and reports System Event and Error Reports (SEERs).

These reports are

- stored in the SEER file which resides on the System Disk
- printed on the SEER printer (could be a dedicated printer or hanging off the system's console terminal)

When any software requires a SEER to be generated, it calls one of the SEER interface procedures (MM_Report, MM_DReport, SE_Report, SE_Print, SE_1Print) with the appropriate data. See the diagram of the SEER generation process on the following page.

Note 1: The capacity exists to enable and disable SEER filing to disk and SEER printing on the printer.

Reports

3500 1. Info System No Action
2. Minor Error Action 1

Cause: Case 1: General SEER server information, such as:

1 A new SEER file is being created.

2 An automatic reset of the SEER server has occurred.

3 The SEER messenger has been restarted.

4 SEER throttling has started, is in progress, or has ended.

5 SEER retries opening printer port.

6 Turning off and on SEER printing when print queue is 75% or 50% full respectively.

Case 2: If it is a Minor Error SEER, its cause is one of the followings:

7 SEER messenger having problems opening printer port.

8 SEER messenger cannot read organization or system profiles.

Impact: Case 1: No impact on the system

Case 2: SEER will not be printed on the SEER printer

3501 Info System No Action

Cause: SEER file is not found in cabinet.

Impact: SEER file will be automatically recreated.

3502 Major Error Action 2

Cause: File system error.

Impact: SEERs may no longer be filed on disk.

3503 Minor Error Action 2

Cause: An error occurred during the indexing of a SEER.

Impact: May indicate a file system problem.

3504 Minor Error Action 2

Cause: A record could not be found and read.

Impact: May indicate a file system problem.

3506 Minor Error Action 3

Cause: The administrator has specified an invalid date (one that is older than the oldest or most recent than the newest SEER on record).

Impact: Operation is not successful

3508 Minor Error Action 4

Cause: No seer records were found in the specified time interval.

Impact: None

3509 Major Error Action 5

Cause: Difficulty communicating with the SEER server, probably due to lack of memory buffers.

Impact: Some SEERs may be lost.

3510 Major Error Action 6

Cause: Tasking error encountered.

Impact: Some SEERs may be lost.

3511 Minor Error Action 2

Cause: Inability to restart the SEER messenger. A file system problem is indicated.

Impact: SEER server crash.

3512 Minor Error Action 2

Cause: This message is issued when the administrator tries to View or Print SEERs through the MMI. A file system problem is indicated.

Impact: Operation not successful.

3513 Minor error Action 7

Cause: Tasking error encountered, probably due to incorrect database or hardware.

Impact: Alarms may not correctly reflect problems on the system.

3514 Minor error Action 8

Cause: Redundant SEER server can locate the active SEER server, but cannot kill it.

Impact: The redundant SEER server will be re-started.

3516 Minor Error Action 9

Cause: Cannot map physical memory segment to Bus controller register.

Impact: Will not be able to start backup SEER server.

3517 1. InfoSystem Action 10
2. Info Error Action 11

Cause: Case 1: Trigger message mechanism is not activated yet or mailboxes not set up properly.

Case 2: Cannot deliver trigger message to mailboxes because of mailbox address problem or message creation problem.

Impact: No trigger messages will be delivered.

3518 1. Minor Error Action 12
2. System Info Action 12

Cause: Case 1: This error occurs when there is a problem sending SEER messages to the SNMP server.

Case 2: This SEER is printed if the sending of SEER messages resumes.

Impact: Case 1: SEER messages will not be sent to the PC.

Case 2: SEER messages will now be sent to the PC.

Actions

Action 1 Check to make sure that the printer is connected to the console or the serial port correctly and properly.

Action 2 Contact your Nortel Networks support organization.

Action 3 Check and correct the date input. Re-issue the command.

Action 4 Check specified time interval input.

Action 5 If the error persists, try to identify by looking at the last set of SEERs printed which component could be generating a lot of SEERs, and try to resolve that problem. If the problem persists, contact your Nortel Networks support organization.

Action 6 If the error persists, contact your Nortel Networks support organization.

Action 7 Contact your Nortel Networks support organization.

Action 8 If SEERs are not being generated, then contact your Nortel Networks support organization.

Action 9 Contact your Nortel Networks support organization.

Action 10 1. If the text says that the trigger message mechanism is not activated yet the system boots up, you should wait until the SEER “Trigger message mechanism is now activated”. If you encountered at all other times, check the SEER configuration screen to see if the trigger mailbox information is entered.

2. If the text says that the trigger message mailbox is invalid, check the SEER configuration screen and make sure that the mailbox information entered is correct, (that is, the mailbox actually exists).

Action 11 1. If the SEER is related to the mailbox setup or DR error for mailbox lookup, check the SEER configuration screen and make sure that the mailbox information entered is correct, (that is, the mailbox actually exists). If the problem persists, contact your Nortel Networks support organization.

2. If the text says that it fails to commit files, to write CDN, etc., look up the return code for more information. If the problem persists, contact your Nortel Networks support organization.

Action 12 Check to see if there is any SNMP server (class 88) related SEERs. If so, try to resolve the problem with the SNMP server. If the problem persists, contact your Nortel Networks support organization.

Network Message Transfer Agent (NMTA)

Introduction

The Network Message Transfer Agent (NMTA) transfers messages between Meridian Mail sites. Outbound messages are received from the Message Transfer Agent (MTA) and sent using the Analog Transfer Agent (ATA) or the Open Access Transfer Agent (OTA). Inbound messages from the ATA and OTA are delivered to the MTA. The NMTA initiates and manages the connections to remote and AMIS sites, and provides network traffic statistics and billing information.

Each network site has one NMTA. The NMTA stores messages in a cabinet (/<volume>/network) before delivering them. The volume number is passed to the NMTA as an argument in the STARTLIST. If the cabinet is not present it may be created using “MKCAB /<vol>/network +custom” from the CLI utility.

NMTA is a critical program. If the NMTA program (NM) fails to recover from serious error and shuts down, the Program Resource Manager restarts it immediately so that networking traffic is not blocked. NMTA errors can prevent connection to another site or cause messages to be lost.

A Class 36 SEER may contain

- File ID
- Client ID
- Mailbox number
- Directory number
- Site number; if networking is not enabled, site number is “0”
- Lower level return code
- Task result

Reports

3601 Debug Info Action 23

Cause: 1. The NMTA is in Loop-around self-test.

2. NMTA is shutting down or restarting.

3. A remote site has been deleted.

Impact: No networking message can be delivered.

3602 Debug Info No Action

Cause: Tasking problem.

Impact: The current connection has been stopped. The originating site will retry in a few minutes.

3603 Debug Info No Action

Cause: Tasking problem.

Impact: The current connection has been stopped. The originating site will retry in a few minutes.

3604 Major Error Action 24

Cause: 1. The NMTA has insufficient memory for a new remote site. The maximum is 65 sites.

2. The NMTA has insufficient memory for a new network port. The maximum is 20 ports.

3605 Critical Error Action 1

Cause: The return code isolates the cause.

1. If the text says “Cannot open message cabinet” or “out of room for message”, there is a cabinet problem.
2. If the text says “Cannot NEWPOOL TempBuf” or “Cannot ADDPOOL to MYID” or “Cannot ADDPOOL to Buffer”, there is a buffer pool problem.
3. If the text says “fails to open Org profile” or “read fails to read CM org record” or “Close fails to close Org. Profile”, there is a problem gaining access to the Organization Profile.
4. If the text says “ReadNetDB: Fails to open the Network database” or “ReadNetDB: Fails to get the local site networking information” or “ReadNetDB: fails to identify the remote sites in the system”, there is a problem using the network database.
5. If the text says “cannot open hardware database” or “fail to do hd_search” or “fail to do hd_initSearch”, there is a problem gaining access to the hardware database.
6. If the text says “# of remote sites exceeds NM capacity” or “NMTA cannot rebuild queues”, there is insufficient memory for the internal database.
7. If the text says “Cannot register NMTA”, there was a problem registering NMTA with the name server.

8. The Startlist argument might be invalid.
9. If the text says “Fails to get the local site networking status”, then usually the network database has not been configured or it has been re-initialized.
10. If the text says “Networking service disable”, then NMTA failed to read the networking status flag and it assumes the flag is set to disable.

Impact: NMTA will not run. No network messages can be sent.

3606 Debug Info No Action

Cause: The NMTA has received invalid parameters from other programs.

Impact: None.

3607 Major Error Action 2

Cause:
1. Bad connection problem
2. Tasking problem
3. Modem problem
4. Problem setting up call
5. Problem transferring voice
6. Problem with local NMTA
7. Problem with file in delivery
8. Miscellaneous problem
9. Protocol problem

Impact: The current connection or connection attempt has been stopped. The originating site will retry within the next five minutes.

3608 Minor Error Action 3

Cause:
1. If the text says: “ERROR state for remote site <site ID>”, the remote site entered error state because a number of consecutive connection attempts to that site failed (default number is 3).
2. If the text says: “Remote site <site ID> has exited from error state”, a site returned to normal from the error state when a successful connection with the remote site was made.

Impact: While a site is in the error state, no connection attempts will be made for one hour. Messages may still be composed to the site, but they will not be delivered during this time.

3609 Minor Error Action 4

Cause: There is no networking port.

Impact: Meridian Network messages cannot be sent.

3610 Major Error Action 5

Cause: NMTA encounters initialization problems. The return code isolates the cause.

Impact: NMTA will shut down and will restart automatically. No network messages will be sent for a few minutes.

3611 Info Admin No Action

Cause: There has been a change in the status of networking.

Impact: Networking may not be available.

3616 Critical Error Action 11

Cause: Access to the Network Database failed.

Impact: No network message can be sent or received.

3617 Major Error Action 1

Cause: Access to the Message Cabinet failed.

3618 Minor Error Action 27

Cause: Two messages have the same name.

Impact: Potentially, one message may not be delivered.

Impact: No network message can be sent or received.

3621 Major Error Action 6

Cause: NMTA has problems gaining access to the message cabinet. The message cabinet may not exist or the volume server may not be running. Check the return code.

Impact: Inbound messages cannot be delivered to the message cabinet for the local user.

3622 Major Error Action 7

Cause: MTA cannot accept a message from the NMTA.

Impact: Messages will not be delivered to local users. NMTA will retry delivery automatically until the message reaches the stale retry limit.

3623 Major Error Action 8

Cause: OM cannot accept a billing record. The OM may not be running.

Impact: Billing record for that message will be lost.

3624 Debug Info Action 5

Cause: The MTA cannot accepts messages from the NMTA.

Impact: Network messages cannot be sent to remote sites.

3625 Major Error Action 9

Cause: NMTA failed to communicate with the voice channel allocator (VCA).

Impact: Network voice transfer may not be possible.

3626 Critical Error Action 10

Cause: NMTA internal database inconsistency.

Impact: NMTA will shut down and will restart automatically.

3627 Major Error Action 11

Cause: The NMTA failed to open the network database. The volume server may not be running. Check the return code.

Impact: NMTA will do a warm restart and continue.

3628 Debug Info Action 5

Cause: None of the modem ports have been assigned a DN.

Impact: Network messages cannot be sent to other remote sites.

3630 Major Error Action 26

Cause: One of the networking modems has failed to send or receive messages at least 15 times in one day.

Impact: This modem will not be used unless there are no other modems available. This could impact the number of networking messages delivered to or from this site.

3631 Minor Error Action 12

Cause: The local site does not have enough ports to handle incoming calls.

Impact: Incoming calls will be rejected.

3632 Major Error Action 25

Cause: The remote site is not defined in the network database.

Impact: NMTA will do a warm restart to pick up the latest view of the network database.

3633 Major Error Action 13

Cause: NMTA cannot generate or send an NDN. The return code isolates the cause.

Impact: Neither the NDN message nor the original message can be sent.

3634 Major Error Action 14

Cause:

1. If the text says “exceeded bad message retry limit”, a message was unsuccessfully sent so many times that it will not be sent again.
2. The NMTA cannot retrieve or store a message in the /1/network cabinet.

The return code isolates the cause.

Impact: The message will be dropped from the system.

3640 Major Error Action 15

Cause:
1. Wrong release number received from remote site (ID is provided).
2. Information for initiating site (ID is provided) could not be found.

Impact: Connection cannot be established with the remote site.

3641 Major Error Action 16

Cause: NMTA received an invalid password from a remote site.

Impact: The connection will be unsuccessful. If the local site is the initiating site, the entry for the remote site will be tagged as in the error state.

3643 Major Error Action 17

Cause: The remote site is using a different software release.

Impact: The connection will be unsuccessful. If the local site is the initiating site, the entry for the remote site will be tagged as in the error state.

3644 Debug Info Action 18

Cause: OTA reports an unexpected request during transmission.

Impact: Outgoing AMIS messages will be either NDN or retried later.

3645 Major Error Action 19

Cause: The NMTA received an invalid site identifier from a remote site.

Impact: No connection will be established because the site is unidentified.

3651 Minor Error No Action

Cause: The NMTA has run out of OTA control block.

Impact: The NMTA cannot deliver the incoming/outgoing AMIS or Enterprise messages temporarily.

3652 Debug Info Action 20

Cause: OTA reports a particular session is disconnected. The reason is in the return code.

Impact: Incoming/outgoing messages will be either retried later or NDN.

3653 Debug Info Action 21

Cause: The system access number used for the AMIS outgoing session, or the Enterprise connection DN is invalid.

Impact: Outgoing messages will be NDN.

3654 Debug Info Action 20

Cause: There is no associated outgoing OTA control block.

Impact: The outgoing AMIS session is ignored.

3655 Debug Info Action 20

Cause: The outgoing session OTA control block is found not in use after the session has been started.

Impact: The current outgoing OTA session is ignored.

3656 Debug Info No Action

Cause: No message found.

Impact: None

3657 System Info No Action

Cause:
1. NMTA cannot deliver the message to the remote site because the recipient's mailboxes are greater than 8 digits and the message is sent to a system which only supports mailboxes up to 8 digits. For Release MM9 or later, the recipient's mailbox can have up to 18 Mailbox digits.
2. A broadcast message was addressed to a site which is running a release of Meridian Mail earlier than release 12.

Impact: An NDN will be generated and sent to the sender.

3658 System Info Action 22

Cause: Case 1. Too few outcalling AMIS-A sessions are allowed.
Case 2. The number of ports assigned for networking is insufficient.
Case 3. Too few AMIS-A messages per session are allowed.

Impact: System performance will degrade and messages may potentially be NDN.

3669 Debug Info No Action

Cause: Program failed to get the cabinet counter.

3699 Admin Info No Action

Cause: An Enterprise Networking Diagnostic Test is beginning or ending.

Impact: None

Actions

Action 1 After networking is added to a system, either through a feature expansion or an install, a critical error is printed during every reboot until the networking data is configured.

Configure the local network site through the Networking Administration screen for the customer group that has networking. If it does not restart, contact your Nortel Networks support organization.

Action 2 Perform the following steps:

a. Verify that the trunk connection is not busy and the remote site is operational.

b. Verify that the dialing connection to the remote site as entered in the system is correct.

c. Verify that the modems are operational and correctly set.

d. Verify that the dialing numbers of the modems as entered in the hardware administration screens are correct.

e. If the problem persists or if NDNs are generated continuously, contact your Nortel Networks support organization.

If a message file problem arises, a NDN will automatically be generated after three delivery attempts.

Action 3 Investigate reason for connection failure. The error state can be cleared by using the "Clear Error" function in the network administration program. If no action is taken, the connection will be tried again after an hour. If this is successful, the error state will be cleared. If the problem persists, contact your Nortel Networks support organization.

Action 4 Check the Hardware Administration data port configuration to see if NWMODEM entries have been correctly entered. If there is a problem, contact your Nortel Networks support organization.

Action 5 Look up the return code for specific information. If unclear, contact your Nortel Networks support organization.

Action 6 Contact your Nortel Networks support organization.

Action 7 Contact your Nortel Networks support organization.

Action 8 If problems persist, contact your Nortel Networks support organization.

Action 9 If problems persist, contact your Nortel Networks support organization.

Action 10 Check if the network is still operational. If necessary, contact your Nortel Networks support organization.

Action 11 Contact your Nortel Networks support organization.

Action 12 If error persists, add networking ports. If the problem persists, contact your Nortel Networks support organization.

Action 13 If problems persist, contact your Nortel Networks support organization.

Action 14 Look up the return code for more information. Contact your Nortel Networks support organization.

Action 15 Add the remote site to the network database. If the problem persists, contact your Nortel Networks support organization.

Action 16 Call the administrator of the remote site to coordinate passwords. If the problem persists, call your Nortel Networks support organization.

Action 17 Make sure that both sites are running the same software release. Contact your Nortel Networks support organization.

Action 18 Check if the AMIS is still operational. If the problem occurs frequently, contact your Nortel Networks support organization.

Action 19 Update the network database with the correct remote site information. Call the administrator of the remote site for the correct site identifier. If the problem persists, contact your Nortel Networks support organization.

Action 20 Check if AMIS or Enterprise Networking is still operational. If necessary, contact your Nortel Networks support organization if the problem persists.

Action 21 Check that the system access number used for AMIS call or the Enterprise Connection is valid. If necessary, contact your Nortel Networks support organization.

Action 22 Case 1. Increase the number of allowable outcalling AMIS-A sessions.

Case 2. Increase the number of ports allowable for AMIS-A.

Case 3. Increase the number of AMIS-A messages per session.

Action 23 1. Check if the user is sending messages to a remote site which has been deleted.

2. Wait for a few minutes to see if the NMTA restarts or finishes loop-around test.

Action 24 Ensure the system does not exceed current limits set for remote sites, or networking ports.

Action 25 Ensure that the remote site is entered in the network database. If the problem persists, contact your Nortel Networks support organization.

Action 26 Check the modem at the DN identified in the SEER.

1. Try resetting the modem. Remove the DN from the Modem Data port (through the Hardware Administration screen) and re-enter it. This will reset the system counter for the modem.

2. If the problem persists after the above step has been performed, it may be a problem with the data port (try a different one), or the modem (replace it).Action 27If the problem persists, contact your Nortel Networks support organization.

Analog Transfer Agent (ATA)

Introduction

The Analog Transfer Agent (ATA) sends network messages to other Meridian Mail sites via the Meridian Network Protocol.

There is one ATA for each connection to a given site. The Network Message Transfer Agent (NMTA) provides an ATA with several parameters including the directory number (DN) dialed to connect to the specified site, the particulars of the modem, and the messages to be sent.

ATA errors lead to connections being terminated. However, the transfer is tried again within five minutes. These errors have minor impact on the system.

A Class 37 SEER usually contains a return code, such as a DD, GTI, VH, or a VSS return code.

Reports

3702 Major Error Action 1

Cause: Cannot open the data port.

Impact: Failure of the networking session.

3703 Critical Error Action 2

Cause: VSS failed to bind with ATA at start-up time.

Impact: Failure to send and receive networking messages.

3704 Major Error Action 1

Cause: An I/O error occurred when a read or write was requested on the specified data port. This is a software error.

Impact: Failure of the networking session.

3705 Minor Error Action 3

Cause: A disk error occurred.

Impact: If the problem occurs three times on the same message an NDN will be generated and the message will be discarded.

3706 Minor Error Action 4

Cause: The specified message was corrupted.

Impact: The system will try to transmit the message three times. If unsuccessful the message will be discarded and an NDN will be generated.

3707 Minor Error No Action

Cause: The ATA and the data link task fell out of synchronization. This usually happens to a very noisy line.

Impact: The message will be re-sent later.

3708 Minor Error Action 5

Cause: An unexpected call progress message was received from the VSS. The first number shown in the SEER is the GTI Call Progress Status. The second number is the supplementary information for the Call Progress Status in hexadecimal format.

Impact: Could be a hardware or software configuration problem.

3709 Minor Error Action 6

Cause: The modem failed to hang up as instructed.

Impact: The modem will not be disconnected.

3710 Minor Error Action 7

Cause: The modem at the specified DN did not hear the carrier asserted by its counterpart at the remote site. The causes for this could be:

1. A call setup problem happened at the remote site.
2. The modem at the remote or the local site is faulty.
3. The incorrect networking access number was dialed.
4. The quality of the line was bad.

Impact: The session will be terminated or retried later.

3711 Minor Error Action 8

Cause: Networking dialed the specified DN and then instructed the modem at the DN to go off-hook. But, networking did not detect that the call was answered. This could occur because:

1. The modem setup in the hardware database is wrong.
2. The Meridian 1 switch setup is wrong.
3. The modem and/or the connections are faulty.

Impact: The call/session is not initiated.

3713 Minor Error Action 9

Cause: The ATA expected a call progress message from the VSS but it did not arrive.

Impact: The session cannot be established.

3714 Major Error Action 10

Cause: Can not allocate buffers from VSS heap.

Impact: The call/session is not initiated.

3715 Minor Error Action 11

Cause: The modem at the specified DN did not respond to a command sent by the ATA.

Impact: Case 1. If the session has been established, the session will be terminated.

Case 2. If the session has not been established, the session will not be established.

3716 Minor Error Action 12

Cause: The ATA could not locate the NMTA.

Impact: The session cannot be established.

3717 Minor Error No Action

Cause: Due to a tasking error, the data link task could not be started.

Impact: The session cannot be established.

3718 Minor Error Action 13

Cause: A tasking error occurred.

Impact: The session will be terminated.

3719 Minor Error Action 13

Cause: A tasking error occurred during an operation involving a timer.

Impact: The session will be terminated.

3720 Minor Error Action 14

Cause: The specified file is probably corrupt.

Impact: If the problem occurs three times on the same message (FID) an NDN will be generated and the message will be discarded.

3721 Minor Error Action 15

Cause: A voice handler related error occurred while transferring to the specified file.

Impact: If the problem occurs three times on the same message (FID) an NDN will be generated and the message will be discarded.

3722 Minor Error Action 16

Cause: An error was received from the voice services shell (VSS).

Impact: The current session will be terminated.

3723 Minor Error Action 17

Cause: An error was received from the voice port handler (VPH).

Impact: The current session will be terminated and retried later.

3750 Debug Info No Action

Cause: Received abort notification from NMTA.

Impact: The current session will be terminated.

3751 Debug Info No Action

Cause: Bad state transition in ATA.

Impact: The message will be re-sent later.

3752 Debug Info No Action

Cause: Bad data encountered during the transmittion of the message.

Impact: The message will be re-sent later.

3753 Info Debug Action 18

Cause: Remote system disconnects the current connection unexpectedly.

Impact: Remote system may experience some difficulties and have to disconnect the current connection.

3755 Debug Info No Action

Cause: System received file Negative Acknowledgement.

Impact: The message will be re-sent later.

3756 Info Debug Action 13

Cause: Remote system does not answer the call.

Impact: The networking path may experience some difficulties. No answer from the called party.

3758 Info Debug Action 13

Cause: Did not receive an acknowledgement for the last data packet sent.

Impact: Call will be terminated. The system will try again later.

3759 Info Debug Action 19

Cause: Poor line quality of the networking path.

Impact: The session will be terminated.

3760 Debug Info No Action

Cause: The incoming call collided with the outdialling request.

Impact: The message will be re-sent later.

3761 Minor Error No Action

Cause: Unexpected call progress message.

Impact: The message will be re-sent later.

3762 Info System Action 20

Cause: The DSP failed to detect the carrier from the remote site's modem. The causes for this could be:

1. A call setup problem happened at the remote site.
2. The modem at the remote or the local site is faulty.
3. The incorrect networking access number was dialed.
4. The quality of the line was bad.

Impact: The session will be terminated and retried later.

3763 Minor Error No Action

Cause: Unknown error.

Impact: The message will be re-sent later.

Impact: The session will be terminated and retried later.

3764 Debug Info No Action

Cause: Incompatible message.

Impact: The message will be re-sent later.

3765 Error Info No Action

Cause: Bad data encountered during the transmittion of the message.

Impact: The message will be re-sent later.

3766 Major Error No Action

Cause: Failed to reset a data port.

Impact: The message will be re-sent later.

3767 Minor Error No Action

Cause: Failed to allocate the segment for the CRC table.

Impact: The message will be re-sent later.

3768 Debug Info No Action

Cause: Broadcast message sent to a pre-MM12 site.

Impact: An NDN will be generated.

3791 Major Error No Action

Cause: Failed to set the mode on the data port.

Impact: The message will be re-sent later.

3792 Major Error No Action

Cause: Failed to open a window on the data port.

Impact: The message will be re-sent later.

3793 Major Error No Action

Cause: Failed to get an object ID from the data port.

Impact: The message will be re-sent later.

3794 Minor Error No Action

Cause: Failed to flush the data port.

Impact: The message will be re-sent later.

Actions

Action 1 Contact your Nortel Networks support organization for data port installation.

Action 2 Courtesy disable and re-enable channels one by one.

Action 3 Look up the associated low level return code for more information. Contact your Nortel Networks support organization.

Action 4 Look at the surrounding SEERs. An associated SEER may indicate the problem. If you are unsure of the problem, contact your Nortel Networks support organization

Action 5 Look up the Call Progress Status in the appendix for more information. Contact your Nortel Networks support organization.

Action 6 If the problem persists on the same modem, the modem may be faulty. Install another modem.

Action 7 Case 1. If the problem persists, check with the administrator at the remote site to determine the status of networking there. Check the connection DNs specified in the remote site form of the site in question. Dial the connection

DNs (the far end should answer, and after a short delay, a modem will assert its carrier signal).

Case 2. Dial the modem at the remote and the local site to ensure that they are working.

Case 3. Check the networking access number to ensure that it is correct and try dialing the remote system again.

Case 4. Try the session again. If the problem persists, contact your Nortel Networks support organization.

Action 8 Contact your Nortel Networks support organization

Action 9 If the problem persists, contact your Nortel Networks support organization.

Action 10 Contact your Nortel Networks support organization.

Action 11 Contact your Nortel Networks support organization

Action 12 Ensure that the system has a valid time. If the problem persists, contact your Nortel Networks support organization.

Action 13 If problem occurs frequently, contact your Nortel Networks support organization.

Action 14 If the problem persists, save the NDN message and contact your Nortel Networks support organization.

Action 15 See the list of VH errors for more information. If unclear, contact your Nortel Networks support organization

Action 16 Look up the VSS return code for more information. If unclear, contact your Nortel Networks support organization

Action 17 Look up the VPH return code for more information. If the problem persists contact your Nortel Networks support organization

Action 18 Look at the remote system SEERs to further clarify the problem experienced by the remote site. Go to the Network Administration screen from the Main Menu and use Remote Site Maintenance to disable networking with that particular site.

Action 19 Check the quality of the networking path by dialing the number from a telephone set and listening to the remote modem signal.

Action 20 Case 1. If the problem persists, check with the administrator at the remote site to determine the status of site networking. Check the connection DN specified in the remote site form of the site in question. Dial the connection DNs (the far end should answer, and after a short delay, the remote modem will assert its carrier signal).

Case 2. Dial the modem at the remote site to ensure that it is working.

Case 3. Check the networking access number to ensure that it is correct and try dialing the remote system again.

Case 4. Try the session again. If the problem persists, contact your Nortel Networks support organization.

Simplified Message Desk Interface (SMDI)

Introduction

The Simplified Message Desk Interface (SMDI) link handler transfers messages between the switch and Meridian Mail. The SMDI link handler communicates with the switch using SMDI protocols and communicates with an application task, such as VSS, OS and MMI using the GTI interface.

Failures in the SMDI link handler results in lost messages leading to call answering not working.

A Class 38 SEER may contain

- state of the SMDI link
- return code from lower level software

  Note 1: Use the HWLOC in the SEER to correlate the SEER message with the MMI SMDI link status screen.

  A LINKID of 1 in the SEER does not necessarily correspond to LINK #1 on the MMI SMDI link status screen.

  It is recommended that the LINKIDs be set up at installation time with meaningful names, for example, UCLA, rather than allowing them to default.

  Note 2: An identification problem may occur when an SMDI SEER is issued with the SMDI link name being composed of a numeric. This SMDI link name should not be thought of as the SMDI link number that appears on the MMI screen. To properly identify the issued SMDI SEER with the information on the MMI screen, match the hardware location indicated in the SEER with that of the hardware location shown on the MMI screen.

Reports

3800 Critical Error Action 1

Cause:

1. If the text says “Error registering the link handler”, the link handler failed to register with the name server.
2. The link handler failed to allocate segment.
3. The link handler encountered an error trying to allocate the buffer pool.
4. The link handler obtained an invalid node number.
5. The link handler encountered an error opening the hardware database, as indicated by the text. If the return code is 1105, the volume server was not started. It must be started before the SMDI link handler.
6. If the text says “Error obtaining dataport information no record with node number nn”, the system could not find a node record in the database that matched the number of the node on which the link handler will be loaded.
7. If the text says “Error obtaining data port information. Not found” no data port records of data type SMDI were found in the database.
8. If the text says “Error obtaining dataport information. Parent record not found”, no parent record for the data port records was found. For example, if a data port record with location 1 1 2 is defined then a record with location 1 1 must be defined. This record must be of component type SBC or RSM.
9. If the text says “Error obtaining data port information. Wrong component type.”, the parent record of the data port record is not of the appropriate component type. The only valid component types for an SMDI data port record are SBC and RSM.
10. If the text says “Error obtaining data port information. SBC port not valid: nn” where nn is the invalid port number, the SBC port number is not correct in the hardware database. The only values that can be entered for an SBC port are 1 or 2, where 1 indicates the console port and 2 indicates the data port.
11. If the text says “Error obtaining data port information. RSM port not valid: nn where nn is the invalid port number, the RSM port number is not correct in the hardware database. The valid values for an RSM port are 1 through 4.
12. The port indicated in the text was not initialized. This can happen when the system is running on the RSM board. It may be that the initialization software for the board was not loaded, so the SMD link handler cannot initialize the port on the RSM board. Other requirements: The RSM handler software (RSMHDLR) must be loaded before the SMDI link handler software. The SMDI software requires an entry in the STARTLIST.
13. If the text says “Error on initializing interrupts” and the I/O error return code is 109, the SMDI link handler tried to get sole possession of the dataport but access was denied. Some other software must have control of the interrupts.
14. SMDI failed to initialize a task, as indicated by the text. The task result isolates the cause.

15. If the text says “More than 10 attempts made to connect to external modems”, the onboard modem cannot establish connection to the external modem. Ten attempts have been made and will continue to attempt to connect.

Impact: The link handler will not be started.

3801 Minor Error Action 2

Cause: An asynchronous tasking error occurred.

Impact: The message sent to the application will be lost.

3802 Minor Error Action 2

Cause: A synchronous tasking error occurred.

Impact: The message sent to the application will be lost.

3803 Info Admin No Action

Cause: This SEER announces that one of the SMDI internal counters has overflowed and has been reset automatically to 0.

Impact: The number in parentheses corresponds to the following counters:

1 Trf_In_Msg - The number of messages sent from switch

2 Msg_Sent - The number of messages sent to application

3 Msg_Not_Sent - The number of errors sending detail call information to applications

4 InvMWIUpdate - The number of times there was a request to turn MWI on or off for an invalid DN (It does not include the invalid polling DN)

5 BlkMWIUpdate - The number of times there was a request to turn MWI on or off and acknowledgement was blocked

6 InvPollDNUpdate - The number of times there was a request to turn MWI on for the polling DN and we received the negative acknowledgment

7 MWIon - The number of times the request to turn MWI on was made

8 MWIoff - The number of times the request to turn MWI off was made

9 Logins - The number of times the applications logged into the devices

10 Logouts - The number of times the applications logged out of the devices

11 LinkDown - The number of times the link went down

12 Request Denied - The number of times request was made and the link was down (For example: application tries to log in when link is down)

13 InvMsgs - The number of invalid PCI messages received from the switch

14 BadMsg - The number of bad packets or bad formats detected from the incoming messages

15 Trf_STBY-msg - The number of msgs sent from standby modems for diagnostics

16 Trf-Con-msg - The number of messages sent from onboard modems attempting to connect the external modems

17 OKcommand - The number of good packets received from modem commands in the process of connecting

18 BadCONMsg - The number of bad packets or bad formats detected from incoming messages when trying to connect modems

19 Connected - The number of times a connection was made

20 Connectattempt - The number of attempts at connection between onboard and external modem

3804 Minor Admin Action 3

Cause: The link handler polled the switch and did not receive an acknowledgment. This indicates that the SMDI link has gone down.

Impact: If the link is down, no communication will take place between the CSE and Meridian Mail. Meridian Mail will not be able to send or receive SMDI messages.

3805 Minor Error Action 4

Cause: An error occurred in sending the Present Call Information (PCI) message to an application because the application was not logged into the voice channel. This will happen when a call comes through on a UCD line that is enabled on the switch but disabled in the hardware database on the Meridian Mail side.

Impact: The message will be lost.

3806 Minor Admin Action 5

Cause: An SMDI message came to the link but no corresponding message desk and terminal was set up in the Meridian Mail hardware database.

Impact: The message will be lost.

3807 Minor Admin Action 6

Cause: The argument string for the SMDI entry in the PRM STARTLIST was not set or is out of range. This is not critical but memory will be saved when the argstring is set in the PRM STARTLIST. The SEER indicates the maximum number of channels.

Impact: The memory requirements for the SMDI link handler will increase.

3809 Info Admin Action 19

Cause: Transmitted an invalid DN on request to turn MWI on/off.

Impact: The user's MWI may be in the incorrect state.

3813 Info Admin Action 7

Cause: The driver was unsuccessful in stealing the interrupts.

Impact: The interrupts did not enable.

3818 Info Admin No Action

Cause: The SEER announces that the SMDI has come up. Therefore, the link handler and the switch are communicating with one another again.

Impact: None

3819 Minor Error Action 7

Cause: Bad Parameter passed in or used.

Impact: Certain function may not be performed.

3820 Info Admin Action 8

Cause: Restarting the link with more channels than it originally had. Administrator/VEM added more channels and started up handler.

Impact: The extra added channels will not be included for that link.

3821 Major Error Action 9

Cause: Registering with the name server failed.

Impact: Will not be able to locate the link handler. No applications can login.

3822 Major Error Action 7

Cause: VCM failed to register the parent SMDI.

Impact: No link handlers for the node the parent program was on.

3823 Info Admin No Action

Cause: The SEER announces what the state link status is going to be (either in-service or out-of-service), or if a nonsupport maintenance request has been received by the link handler.

Impact: None

3824 Minor Admin Action 10

Cause: No channel found for link in the hardware database.

Impact: link handler does not support any channels.

3825 Major Error Action 11

Cause: Problem with the indexing into the CAT info tables memory. Indexing beyond 192 channel limit.

Impact: Could cause serious memory corruption.

3826 Minor Error Action 12

Cause: Not able to inform VCM of status change for the link.

Impact: Link could remain in faulty status. No switch link performed.

3827 Minor Error Action 12

Cause: The active link could not be located from the node which contains the standby link.

Impact: No information transferred from active to redundant. Some messages (MWI) may not be sent.

3828 Minor Admin Action13

Cause: LinkID being used was not originally in the hardware for that node.

Impact: Link might not be brought up or certain functions may not be performed.

3829 Minor Error Action 14

Cause: The board type does not support switching links. Wrong board type.

Impact: The switch link will be ignored.

3830 Minor Admin Action 15

Cause: The type of system does not support redundant links.

Impact: Switch link command will be ignored.

3831 Minor Admin Action 16

Cause: The port being used is not in the range 0-3.

Impact: Port may not be initialized.

3832 Info Debug No Action

Cause: General information given during the processing of messages.

Impact: None

3835 Minor/Major Error Action 17

Cause: The Link reported a fault—no handshaking for 5 minutes. If the link is in REDALARM, the link handler has polled the switch and not received an acknowledgement. If link is in YELLOWALARM, then onboard modem is having problems connecting to the external modem.

Impact: The link will be down; no communication will take place. Mail will not be able to send or receive SMDI messages. If redundancy is available, when the fault occurs the link will switch to the partner link. If redundancy is not available (that is, no redundancy, partner faulty, partner out-of-service), then the link will report fault every 5 minutes. For every second fault reported, the severity will change from Minor to Major, and the modem on the link will be reset. It will try to re-establish the modem connection again.

3836 Minor Error Action 18

Cause: Onboard standby modem self-test produced an error count.

Impact: The modem is faulty.

3899 Info Debug No Action

Cause: General information given during the processing of messages.

Impact: None

Actions

Action 1 Contact your Nortel Networks support organization.

Action 2 Contact your Nortel Networks support organization if the problem persists.

Action 3

1. Make sure that the SMDI device has been data filled to match the SMDI data port entry in the Meridian Mail hardware database. Specifically, the baud rate and parity defined in table TERMDEV for the device must be the same as the baud rate and parity defined for the SMDI data port on Meridian Mail.
2. Make sure that the IOC card on the switch side, which has the RS-232 cable connected to it, has been put into service. To do this, refer to the relevant *Installation and Maintenance Guide*, NTP 555-70x1-250.
3. Restart the SMDI link on the switch side by utilizing the MAP terminal to BSY/RTS the link.

Action 4 Check the channel status via the MMI screen. The channel must be enabled in both the hardware database and the switch side or disabled in both places. If the channel has to stay disabled on the Meridian Mail side then it must be disabled on the switch side.

Action 5 Check the consistency of the Meridian Mail hardware database and the UCD lines on the switch side. The following conditions can be checked:

1. Make sure that the message desk number and terminal number are defined properly for each channel. The message desk number for each channel on the Meridian Mail side must be the number defined in the UCDGRP table. The terminal numbers (or line numbers) defined for each channel on the Meridian Mail side must correspond to the line numbers given to each agent of the SMDI UCD group.

2. Make sure that the number of UCD agents that are in service on the switch side corresponds to the number of channels that are in service on the Meridian Mail side.

Action 6 Contact your Nortel Networks support organization.

Action 7 Contact your Nortel Networks support organization.

Action 8 Reboot the system, after changes made. If the problem persists, contact Nortel's support organization.

Action 9 Check the return code for more information. Contact Nortel's support organization.

Action 10 Modify hardware database and add channels if required.

Action 11 Verify that the total amount of channels defined in the system hardware database is not more than 192. Contact your Nortel Networks support organization.

Action 12 Contact your Nortel Networks support organization.

Action 13 Check hardware database for LinkID. If LinkID is incorrect, contact your Nortel Networks support organization.

Action 14 Contact your Nortel Networks support organization.

Action 15 Contact your Nortel Networks support organization.

Action 16 Contact your Nortel Networks support organization.

Action 17 1. If REDALARM, check the SMDI status on the switch side, and reset the link on the switch side.

2. Verify the cable connections are still in place.

3. Disable/enable the SMDI link. Reset the link on switch side.

Action 18 Disable the standby modem. Run out-of-service diagnostics.

Action 19 Search for mailbox containing the MWI DN specified in the SEER and verify that this is correct. Check configuration of the DN on the switch.

Hardware Database (HD)

Introduction

The Hardware Database (HD) keeps inventory of the hardware components, including nodes, channels, cards, mass storage devices and tape drives.

Usually, when problems occur they only affect the requested operation, and the Hardware Database stays intact.

A Class 39 SEER generally contains

- lower level return codes
- hardware location codes

These codes can be found in Appendix A of this document.

Man Machine Interface Server (MS)

Introduction

The Man Machine Interface (MMI) Server handles text base administration arbitration and the gathering of dynamic status information from other programs.

Text base arbitration is required for the Multiple Administration Terminal feature. Similarly , the gathering of dynamic system, node, card, DSP port, T1 Link (MSM only), T1 Channel (MSM only), disk, and SMDI/AML is also required.

Reports

4000 Minor Error Action 1

Cause: The MMI server failed to register the update task with the PRM or SEER Server.

Impact:
1. If the SEER text indicates the failure is with the PRM, for example, “MS_INFO: PRM Register Failed,” then the MMI server will not receive dynamic status from the PRM regarding the node status.
2. If the SEER text indicates the failure is with the SEER server, for example, “MS_SERVER: Program Completed by Request,” or “MS_SERVER: Cannot register,” then the MMI server will not receive the contents of the last SEER.
3. The MMI display of the node status or the display of the last event on the system status screen will be incorrect.

4002 Minor Error Action 1

Cause: The MMI server cannot start some internal task.

Impact: Some dynamic status information will not be updated by the MMI server program. The MMI status and maintenance displays will not display changes to various node, card, DSP port, T1 channel and link status.

4003 Minor Error Action 2

Cause: The MMI server could not read the hardware database or could not obtain disk information.

Impact: If the SEER text indicates the failure to read the HWDB, then the configuration record will not be received by the MMI program. The MMI program may display wrong MMI

screens based on incorrect platform information. If the SEER text indicates failure to communicate with MA, the MMI server could not obtain disk information from the specified node.

4005 Minor Error Action 3

Cause: The MMI server could not read or write to billing control file.

Impact: The MMI program will not be able to read or change billing control information.

4006 Info Admin No Action

Cause: Billing control file created successfully or billing control table audited successfully.

Impact: None

4008 Info Error Action 4

Cause: MMI server was killed and restarted because of an initialization failure.

Impact: MMI server is restarted.

4009 Minor Error Action 5

Cause: The MMI server could not count the current number of temporary remote voice users.

Impact: The current number of temporary remote voice users could be incorrect.

4010 Minor Error Action 5

Cause: System/Customer profile.

Impact: The system for NAN or PMA users could be incorrect.

4011 Minor Error Action 5

Cause: The MMI server could not complete the NAN audit.

Impact: The system limit for NAN users could be reached which would prevent any NAN users from being added.

4012 Info System No Action

Cause: The NAN audit completed successfully.

Impact: None.

4013 Minor Error Action 5

Cause: Not enough memory to complete the NAN audit.

Impact: The system limit for NAN users could be reached which would prevent any new NAN users from being added.

Actions

Action 1 Contact your Nortel Networks support organization.

Action 2 If the MMI server could not read the hardware database, contact your Nortel Networks support organization. If the MMI server could not obtain disk information, verify if the node is faulty or booting. Either condition will cause this error. Otherwise contact your Nortel Networks support organization.

Action 3 Contact your Nortel Networks support organization.

Action 4 Contact your Nortel Networks support organization.

Action 5 Contact your Nortel Networks support organization.

T1 Loader

Introduction

The T1 Loader is used to load S-record files to the 68302 SRAM. To accomplish this, the loader requires the service of the T1 bootstrap file.

T1 loader errors generally reflects fault in the hardware, the bootstrap file or the file to be loaded.

Errors encountered in the loader task may prevent the T1 span from being loaded and may even cause the node to crash, depending on the severity of the error.

Reports

4500 Critical Error Action 1

Cause Cannot locate T1 Loader task.

Impact: Current Loader task request will not be processed.

4501 Major Error Action 1

Cause: Error tasking with the T1 Loader.

Impact: Current Loader request will not be processed.

4502 Critical Error Action 2

Cause: T1 Loader memory tests indicate that the DPRAM is faulty.

Impact: Span will not be loaded.

4503 Critical Error Action 3

Cause: Loader polling of Bootstrap timed out.

Impact: Span will not be loaded.

4504 Critical Error Action 4

Cause: BootStrap memory tests indicate that the 68302 SRAM is faulty.

Impact: Span will not be loaded.

4505 Critical Error Action 5

Cause: T1 Bootstrap detected checksum error in the T1 firmware S-record placed on DPRAM by T1 Loader.

Impact: Span will not be loaded.

4506 Critical Error Action 5

Cause: 68302 Bus error detected by BootStrap.

Impact: Span will not be loaded.

4507 Critical Error Action 5

Cause: 68302 interrupt detected by BootStrap.

Impact: Span will not be loaded.

4508 Critical Error Action 5

Cause: 68302 addressing detected by BootStrap.

Impact: Span will not be loaded.

4509 Critical Error Action 5

Cause: Illegal instruction reported by 68302 Bootstrap.

Impact: Span will not be loaded.

4510 Critical Error Action 5

Cause: Invalid status received from Bootstrap.

Impact: Span will not be loaded.

4511 Critical Error Action 5

Cause: Unexpected status received from Bootstrap.

Impact: Span will not be loaded.

4512 Critical Error Action 5

Cause: Incorrect status2 received from bootstrap.

Impact: Span will not be loaded.

4513 Critical Error Action 5

Cause: Character in S-Record is not a digit as expected.

Impact: Span will not be loaded.

4514 Critical Error Action 5

Cause: Cannot open file on disk to load span.

Impact: Span will not be loaded.

4515 Critical Error Action 5

Cause: Cannot find record 1 in S-record file on disk.

Impact: Span will not be loaded.

4516 Critical Error Action 5

Cause: Cannot read S-Record file on disk.

Impact: Span will not be loaded.

4517 Critical Error Action 5

Cause: File is not of expected S-Record format.

Impact: Span will not be loaded.

4518 Major Error Action 6

Cause: Invalid span number received.

Impact: Task request will not be processed.

4519 Major Error Action 7

Cause: A load request was made with the invalid Load type.

Impact: Request will not be processed.

4520 Critical Error Action 8

Cause: Could not get bootstrap FID. File may not exits.

Impact: Span will not be loaded.

4521 Minor Error Action 9

Cause: Could not close open file.

Impact: A SEER may be received later indicating that file was not closed.

4522 Minor Error Action 10

Cause: Loader request could not be performed with the span in its current state.

Impact: Current request will not be processed.

4523 Critical Error Action 11

Cause: T1 Loader could not register.

Impact: No T1 service available on node.

4524 Critical Error Action 12

Cause: Unable to allocate buffer to load T1 firmware.

Impact: Span will not be loaded.

4525 Critical Error Action 13

Cause: Bootstrap cannot interpret record placed on DPRAM.

Impact: Span will not be loaded.

4526 Critical Error Action 13

Cause: Timeout waiting for firmware to respond with span-awake information.

Impact: Will not be able to load span.

4527 Critical Error Action 13

Cause: Expecting only one message (Span awake) from firmware, however more messages were received.

Impact: Span will not be loaded.

4528 Critical Error Action 14

Cause: Firmware indicate span-awake failure.

Impact: Span will not be loaded.

4529 Critical Error Action 13

Cause: Expecting only one message from firmware but received more.

Impact: Span is marked faulty.

4530 Critical Error Action 13

Cause: Firmware report failure in Span Setup. It is probably a hardware fault.

Impact: Span is not functional.

4531 Minor Error No Action

Cause: Link Handler attempted to login into span more than once.

Impact: None.

Actions

Action 1 If error persists disable and reenable node specified in SEER. If problem still exists contact your Nortel Networks support organization.

Action 2 Use T1 Diagnostics to determine memory failure and replace the necessary hardware. If diagnostics cannot detect a hardware fault, try reloading span. If problem still exists try changing the T1 card. If all fails, contact your Nortel Networks support organization.

Action 3 Try disabling and enabling node. If the problem still exists, try the following:

1. Run T1 diagnostics to determine hardware sanity.
2. If diagnostics fail, replace the T1 card using the *Card Replacement Procedures* manual (NTP 557-7001-502).
3. If problem still exists, contact your Nortel Networks support organization.

Action 4 Run T1 Diagnostics to determine memory failure and replace necessary hardware. If no hardware fault can be detected by diagnostics try the following:

1. Reload span.
2. Change hardware (T1 card).
3. If problem still exists, contact your Nortel Networks support organization.

Action 5 Try disabling and enabling the span. If problem still exists contact your Nortel Networks support organization.

Action 6 Depending on the request, a node disabling/enabling may be necessary. If the problem continues, contact your Nortel Networks support organization.

Action 7 Disable and enable the node specified in the SEER. If problem continues, contact your Nortel Networks support organization.

Action 8 Disable and enable the Node. If the problem persists, contact your Nortel Networks support organization.

Action 9 If the problem persists, contact your Nortel Networks support organization.

Action 10 Action depends on span state. If span state is faulty then run diagnostics on corresponding T1 card after disabling it. If problem persists, try disabling and enabling the node. If this does not help, contact your Nortel Networks support organization.

Action 11 Try disabling and enabling the node. If problem continues, contact your Nortel Networks support organization.

Action 12 Try disabling and reenabling the T1 card affected by the problem. If the problem persists, try disabling and reenabling the node. If this does not help, contact your Nortel Networks support organization.

Action 13 Try disabling and reenabling the T1 card affected by the problem. If problem continues, try disabling and enabling the node. If this does not help, contact your Nortel Networks support organization.

Action 14 Use T1 diagnostics to test hardware and replace T1 card if faulty. If no hardware fault can be detected, contact your Nortel Networks support organization

Voice Channel Maintenance (VCM)

Introduction

The purpose of Voice Channel Maintenance (VCM) is to perform maintenance actions on various voice based devices. They include T1 Link handlers, Telephony channels, DSP ports, and SMDI link handlers. They also assist in other maintenance operations on nodes and cards. The VCM is also responsible for starting up all the voice based programs, such as the VSSs, VPHs, T1 link handlers, and SMDI link handlers.

Some general rules regarding VCM SEERs:

- If a maintenance problem occurs, the SEER will normally provide a HWLOC that corresponds to a device in the hardware database.
- If a device is reporting problems or it is not working properly, do the following:

  1. Disable the device(s)
  2. Run OutOfService diagnostics if available
  3. Enable the device

If this does not produce satisfactory results, do the same to its parent. For example, if you cannot disable a port then try to disable the Card.

In addition to the SEER number and the HWLOC, the VCM also prints the device status, event, and cause of program termination when appropriate.

DevType

On some SEERs the Device type is printed (for example, DevType=Channel).

Value printed	Explanation
SMDI	The SMDI link Handler
T1LH	The T1 Link Handler
Channel	The VSS associated with the Telephony channel
Port	The VPH associated with the DSP port
NODE	The Node which can be any node (MSP, SPN, TIFN)
DSP	The DSP
System	The System

Cause

When a program terminates the cause will be printed on the SEER (for example, Cause=Exception)

Value printed	Explanation
Exception	An exception occurred or program died due to an error.
Completion	A program completed.
Shutdown	A program was shut down by the PRM.
UnexpectedUnLoad	A program unloaded unexpectedly.
NotLoaded	A program could not be loaded.

DevStatus

On some SEERs the VCM Device Status will be printed. DevStatus=isOnline means the device is in-service online and ptrStatus=isStdby means the partner device is InService Standby.

Value printed	Explanation
isNotLded	InService, not loaded
isLding	InService, loading
isLded	InService, loaded
isOnLine	InService, OnLine
isSTdBy	InService, standby
isPCtsy	InService, courtesy down, pending
isCtsyDown	InService, courtesy down
isUnLoading	InService, Unloading
oos	OutOfService
oosTesting	OutOfService, offline testing
oosTestOver	OutOfService, offline test over
Faulty	faulty
Unconfigured	unconfigured

DevEvent

On some SEERs the event reported by the device is printed (e.g., DevEvent=ISOn1)

Value printed	Explanation
ISOn1	Going Inservice Online
ISOff1	Going Inservice Offline
ISErr	Error occurred
ISRed	Red Alarm occurred
ISYlw	Yellow Alarm occurred
ISBlue	Blue Alarm occurred
OoS	Going OutofService
POoS	Pending OutofService
ISCPnd	Pending a Courtesy Down
ISCDwn	Going into Courtesy Down state
DrvFlty	Fault detected (DSP)
1F	Fault 1 detected
2F	Fault 2 detected
3F	Fault 3 detected
ClrAlrm	Alarm cleared
Of1Diag	Offline Diagnostics

Reports

4122 Info System Action 1

Cause: VCM has selected a new T1 span as the clock source.

Impact: None.

4129-4138 Minor Error Action 2

Cause: Problem loading DSPs or communicating with the VOM_PP. Look up Class 41 codes in the Appendix for more information.

Impact: Three channels or ports will be affected.

4143 Minor Error Action 3

Cause: Could not get device status from the VCA for channels and ports.

Impact: Device status not reliable for reporting period.

4144 Minor Error Action 4

Cause: A requested maintenance action failed or was rejected.

Impact: The requested maintenance action will not be performed.

4146 Minor Error Action 5

Cause: An unexpected event occurred in device report.

Impact: None

4147 Minor Error Action 6

Cause: Configuration problem. There are not enough SPN nodes to accommodate the number of configured T1 trunks in the hardware database.

Impact: None

4155 Major Error Action 7

Cause: There was a problem reading or writing to the hardware database.

Impact: On startup it will prevent the VCM from starting all devices.

4158 Minor Error Action 8

Cause: An unexpected event occurred.

Impact: Maintenance action will fail.

4161 Critical Error Action 9

Cause: Configuration problem. At startup could not get memory required. There are too many programs on the VCM node.

Impact: VCM and the system will not function.

4163 Major Error Action 10

Cause: Many alarms have been reported by a T1 link. There is a possible problem on the far end of the link.

Impact: No channels on the T1 link will accept calls.

4164 Minor Error Action 11

Cause: A tasking error occurred.

Impact: Maintenance action will fail.

4165 Minor Error Action 8

Cause: A nil task ID was found when a real one was expected.

Impact: Maintenance action will fail.

4166 Critical Error Action 8

Cause: An unexpected event occurred.

Impact: Maintenance action will fail.

4167 Minor Error Action 12

Cause: A program terminated. Normally this is due to a maintenance action. It can occur when a node dies or a program crashes.

Impact: The device is disabled momentarily.

4168 Minor Error Action 13

Cause: A HWLOC was passed in that the VCM could not find in its tables. In most cases the Hardware Database has been improperly filled with regards to redundant partners.

Impact: The device related to the HWLOC will have recovery problems.

4173 Major Error Action 14

Cause: Could not start the device.

Impact: Maintenance action failed.

4175 Critical Error Action 9

Cause: A serious initialization problem occurred. Read the SEER text. It is probably due to a configuration problem.

Impact: System will not function.

4182 Minor Error Action 8

Cause: Could not start communication with the VSS.

Impact: Maintenance action failed.

4183 Major Error Action 15

Cause: VCM unable to locate AML on Fox system.

Impact: VCM will not start until AML is located.

4185 Minor Error Action 16

Cause: The VCM has restarted for one of several reasons. The Warmstart prints several information messages.

Impact: Outstanding maintenance action may fail.

4186 Minor Error Action 17

Cause: Standby VCM unable to get information from active VCM.

Impact: Minimal

4187 Minor Error Action 18

Cause: Client did not respond to maintenance request.

Impact: Maintenance action failed.

4188 Minor Error Action 19

Cause: Could not start communication with the PRM.

Impact: Unknown

4189 Minor Error No Action

Cause: Could not start communication with the VCA.

Impact: Minimal

4192 Minor Debug Action 8

Cause: An error occurred while registering a device.

Impact: Device that attempted registration will not be registered.

4193 Minor Error Action 8

Cause: Once per hour the VCM will audit the VSS. A problem was found.

Impact: Device may not be functioning.

4194 Minor Error Action 20

Cause: On a hardwired system where the voice cables are routed directly to the voicecard, a channel was being enabled and there was no accompanying VPH.

Impact: Channel may not come up.

4195 Minor Error Action 8

Cause: A maintenance action did not complete fully or two maintenance actions on one device occurred at the same time and the VCM lost track of the first one.

Impact: Minimal.

4197 Info System Action 21

Cause: An information SEER.

Impact: None

4198 Info Debug Action 22

Cause: An assertion statement failed.

Impact: Minimal

4199 Info Debug No Action

Cause: An information SEER.

Impact: None

Actions

Action 1 None. Excessive occurrences may indicate a problem with the clock source.

Action 2 Disable Voice Card from MMI and run out-of-service diagnostics, and reenable the card.

Action 3 Look up the return code. If unclear, contact your Nortel Networks support organization.

Action 4 The SEER text will specify the device type, HWLOC, and state of the device in question. Look up the Class 41 return codes in Appendix A of this manual. Refer to the introduction of this SEER class for the explanation of these values.

Action 5 If system fails to stabilize, disable the affected devices, run OOS diagnostics and reenable.

Action 6 Contact your Nortel Networks support organization.

Action 7 Disable and reenable affected devices. Look up the return code printed. If it happens at bootup or recovery, contact your Nortel Networks support organization.

Action 8 Disable, run OOS diags and reenable device.

Action 9 Contact your Nortel Networks support organization.

Action 10 Check T1 connections.

Action 11 Disable, run OOS diags and reenable device.

Action 12 Wait for it to recover. If it does not then disable, run OOS diags and reenable device. Recovery should take less than one minute if it is an isolated case.

Action 13 Contact your Nortel Networks support organization.

Action 14 Analyze the other SEERs for more information.

Action 15 Contact your Nortel Networks support organization.

Action 16 For any SEER with a specific HWLOC wait until the system stabilizes and then Disable, run OOS diags and reenable the device. You should wait for at least 15 minutes.

Action 17 If problem persists, contact your Nortel Networks support organization.

Action 18 Look up task results. Disable, run OOS diags and reenable the device.

Action 19 None

Action 20 If the return code is not 0 then disable, run OOS diags and reenable device. If the return code is 0 then it recovered by itself.

Action 21 If the SEER is reporting a problem such as a faulty device, consult the introduction of this SEER class for the general guidelines.

Action 22 Disable, Run OOS diags and reenable device if necessary.

Open Access Transfer Agent (OTA)

Introduction

Open Access Transfer Agent (OTA) sends AMIS (Audio Messaging Interchange Specification) and Enterprise network messages to another voice messaging system. For AMI messages, the other voice messaging system may, or may not be Meridian Mail.

There is one OTA for each connection to a given voice messaging system. OTA needs to read the system profile, customer profile, networking database file, sender profile, and/or recipient's profile in order to send or receive a message. NMTA provides OTA with the FID of a message, OTA opens the message and transmits the message by using the standard playback command. For incoming message, OTA receives the message by using the standard record command, and then changes the message format to Meridian Mail message format.

Errors in OTA leads to the connectionbeing terminated. But transfer will be retried within the interval defined under Network Administration. (The default is five minutes.) These errors have a minor impact on the system.

Each class 42 SEER identifies which protocol is used, which site the OTA is connected to, and whether the OTA is sending messages or receiving them (for example, "AMIS to site 50", or "EN from Site 2".) "EN" identifies an Enterprise Networking SEER, and "AMIS" identifies an AMIS networking session. If the OTA is delivering a message to, or receiving a message from an open network user, the site will be "open site" (for example, "AMIS to Open Site").

Reports

4200 Info Debug No Action

Cause: AMIS flag is turned on, and a session is completed.

Impact: None

4201 Minor Error Action 1

Cause: Error occurs in accessing or creating a message file. Return codes will isolate the cause.

Impact: If error occurs in accessing an outgoing message the system will continuously retry for a period of time specified by the administrator. If the error still occurs the system will generate a NDN. If error occurs in accepting an incoming message, the system will terminate the session.

4202 Minor Error Action 1

Cause: Error occurs during transferring voice.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error still occurs the system will generate a NDN. If the error occurs during transferring an incoming message, the system will terminate the session.

4203 Minor Error Action 1

Cause: Tasking error occurred. Return codes will isolate the cause.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error still occurs, the system will generate a NDN. If the error occurs during transferring an incoming message, the system will terminate the session.

4204 Minor Error Action 1

Cause: Error occurs during sending or receiving tones.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error still occurs, the system will generate a NDN. If the error occurs during transferring an incoming message, the system will terminate the session.

4205 Info Error Action 2

Cause: Error occurs during protocol exchange. One of the systems may not have conformed with the AMIS or Enterprise protocol. It could also be caused by a poor line or transmission problem.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error still occurs, the system will generate a NDN. If the error occurs during transferring an incoming message, the system will terminate the session.

4207 Minor Error Action 2

Cause: OTA could not locate NMTA. Return code will isolate the cause.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error still occurs, the system will generate a NDN. If the error occurs during transferring an incoming message, system will terminate the session.

4208 Minor Error Action 1

Cause: Error occurred during accessing networking database file. Return codes will isolate the cause.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error still occurs, the system will generate a NDN. If the error occurs during transferring an incoming message, system will terminate the session.

4209 Minor Error Action 3

Cause: Could not find recipient in the message envelope.

Impact: The system will continuously retry for the period specified by the administrator. If the error still occurs, the system will generate a NDN.

4210 Minor Error Action 1

Cause: Error occurs during reading recipient's information. Return codes will isolate the cause.

Impact: System will terminate the session.

4211 Info Debug Action 4

Cause: If the system was making a call:
1. The user entered a wrong system access number when composing a message, or the connection DN is incorrect.
2. The receiving system is busy (for example, there are no channels to answer the call in the remote system.)

Impact: For originating system:
The connection could not be established. The system will retry three times, if it still cannot establish the call, it will generate a NDN.
For receiving system:
The channel will be active for 70 seconds and then drop the call.

4212 Info Debug Action 5

Cause: 1. Error occurs because of poor line quality while transmitting analog signal.
2. One of the systems does not conform to the AMIS-A protocol standard, or the Enterprise Networking Protocol.

3. Data sent or received is invalid.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error still occurs the system will generate a NDN. If the error occurs during transferring an incoming message, the system will terminate the session.

4213 Minor Error Action 1

Cause: OTA fails to register.

Impact: If error occurs during starting outgoing session the system will retry three times. If the error still occurs, the system would generate a NDN. If error occurs during starting an incoming session, the system would terminate the session.

4214 Info Error Action 4

Cause: Other system stopped while transmitting voice.

Impact: The system will terminate the session.

4215 Minor Error Action 5

Cause: Other system detected an error while our system was transmitting voice.

Impact: The system will continuously retry for a period of time specified by the administrator. If the error still occurs, the system will generate a NDN.

4216 Info Debug Action 6

Cause: 1. A user entered a wrong number during composition of an AMIS message.

2. The administrator entered a wrong number in the remote site maintenance screen (network administration).

Impact: The system dialed to a person instead of a voice messaging system.

4217 Info Debug Action 4

Cause: Problem occurs during call setup. The SEER text indicates whether the problem occurs at the sending site or the receiving site.

Impact: Outgoing messages will be either NDN or retried later.

4220 Minor Error Action 1

Cause: OTA failed to gain access to directory server.

Impact: The system will retry for a period of time, specified by the administrator. If the problem persists, the system will generate an NDN.

4221 Minor Error Action 1

Cause: The OTA encountered problems adding or updating a Remote Voice User (RVU). This SEER class only applies to Enterprise Networking using RVU Propagation.

Impact: The RVU will not be added or updated.

4222 Minor Error Action 1

Cause: There was invalid information in the message. The message will not be delivered to one or more of the recipients. This SEER class applies to Enterprise Networking only.

Impact: A message and an NDN will be returned to the sender.

4223 Minor Error Action 7

Cause: The message transfer protocol used to send or receive messages to the remote site was incorrect, i.e., AMIS was used, but the remote site expected Enterprise (or vice versa).

Impact: Messages cannot be sent to, or received from this remote site. The remote site is placed in Error Status.

4224 Minor Error Action 7

Cause: Protocol mismatch. AMIS message from an Enterprise defined site or vice versa.

Impact: Messages cannot be sent to the remote site or received from the remote site.

4225 Minor Error Action 3

Cause: An address in the message was corrupt.

Impact: An NDN will be returned to the sender.

4299 Info Admin No Action

Cause: These are the SEERs which are displayed during an Enterprise Networking Diagnostic Test. They provide information for each step of the test.

Impact: None.

Actions

Action 1 Look up the low level return code for specific information. If the problem persists, contact Nortel Networks support organization.

Action 2 Record any other SEERs and contact your Nortel Networks support organization.

Action 3 If the problem persists, contact your Nortel Networks support organization.

Action 4 Record any other SEERs, and track the frequency. If this happens frequently, contact other system to find out if user entered a wrong number or if the other system is busy most of the time. If it is not caused by one of the above two reasons contact your Nortel Networks support organization.

Action 5 Record any other SEERs, and track the frequency. If the problem occurs frequently, contact your Nortel Networks support organization.

Action 6 Check the remote site maintenance screen to see if the connection DN is entered correctly.

Action 7 Check the Remote Site definition for this site in the network database. Make sure the “message transfer protocol” field is set to the same value as the field defined at the remote site.

Forms Manager (FM)

Introduction

The Forms Manager (FM) stores and retrieves Voice Form Responses. Requests for the storage or retrieval of a response, or information about responses, are made by the Voice Forms Editor (VFE), Voice Forms Caller's Interface (VFCI), and the Voice Forms Transcription Service (VFTS).

FM errors may affect the usability of the entire Voice Forms feature, may be isolated to an individual call or Voice Form Editor session, or may affect an individual Voice Form definition.

FM SEERs contain

- an acronym indicating which portion of the FM functionality is reporting the error: FM, FMP or FMS
  - FM: The FM or one of its tasks has reported the error.
  - FMP: The error is being reported from the VFE, VFCI or VFTS through the FM interface.
  - FMS: The error is being reported by a backup/restoration utility which is using FM restoration routines.
- ID# followed by the voice form definition's service ID
- R# followed by the response id number

Reports

4301 Minor Error Action 1

Cause: A VFTS, VFCI or VFE tried to communicate with the FM server, but the communication failed due to the server not being found on the system.

Impact: VFE: The administrator will see an error message indicating that the last operation has failed. Another attempt can be made by the administrator by pressing SAVE again, or selecting the form definition and indicating the operation to be attempted again.

VFCI: An error message is played instructing the user to call again. A response is not recorded.

VFTS: An error message is played for the user indicating that a system error has occurred. All responses which have been transcribed will be recorded as having been transcribed.

4302 Minor Error Action 2

Cause: A problem occurred while trying to access an information file which is associated with a voice form definition. These information files are accessed either directly by the VFE or through the FM. The error represents a problem accessing the information file.

Impact: VFE: An error message is displayed for the administrator indicating that the last operation has failed. To repeat the operation, the administrator can press SAVE again, or select the form definition and indicate the operation to be attempted again.

VFCI/VFTS: These services will not be operational for this voice form as they also need access to this information file.

4308 Minor Error Action 3

Cause: A VFCI service was unable to create / access the cabinet needed to hold a new response.

Impact: VFCI: The response, which has been recorded, will be lost. The SEER issued will indicate the volume number, customer number, form ID, and response ID of the response affected. The caller will be notified, provided they have not hung up. In the worst case, responses will not be available for transcription or addition, for this volume and the indicated form.

4309 Minor Error Action 4

Cause: A VFCI service was unable to add a new response to an existing response cabinet.

Impact: VFCI: The response, which has been recorded, will be lost. The SEER issued will indicate the volume number, customer number, form ID, and response ID of the response affected. The caller will be notified, provided they have not hung up. In the worst case, responses will not be available for transcription or addition, for this volume and the indicated form.

4311 Minor Error Action 5

Cause: When a Transcription service has finished transcribing a response, it was unable to remove a response file which had been successfully transcribed.

Impact: The response will be presented to more than one transcriber. provided the response and response cabinet, still exist in an understandable state. In the worst case, responses will not be available for transcription or addition for this volume and the indicated form.

4312 Minor Error Action 6

Cause: When a Transcription service has finished transcribing a response, it was unable to change the state of the response file to indicate that the response had been transcribed.

Impact: The response was or will be presented to more than one transcriber.

4313 Minor Error Action 7

Cause: When a Transcription service was handed a response to be transcribed from the FM the response file was found to be corrupted.

Impact: The response is removed from the system.

4314 Minor Error Action 7

Cause: When a Transcription service was handed a response to be transcribed from the FM the response file could not be accessed.

Impact: The response will be given to another service for transcription. If the volume is found to be off-line, transcription is delayed until the volume is on-line.

4315 Info Debug Action 8

Cause: The parameters given in the STARTLIST are incorrect.
SEER text may say:

a. STARTLIST Format:FM [MemType] <Vol> <Vol>....

b. Too many volumes specified for server.

c. No volumes passed.

Impact: The Forms Manager will not start until these parameters are resolved.

4325 Minor Error Action 9

Cause: A problem occurred while trying to synchronize restored voice form data with data which already exists on disk. Either a file, cabinet, or service could not be accessed.

Impact: Only part of the restored data has been synchronized.

4326 Info Debug No Action

Cause: A status note from the FM indicating a significant event, for example, Restart complete.

Impact: None.

4327 Minor Error Action 10

Cause: The FM has not been able to be started or restarted. The error which occurred is stated in the text of the SEER.

Impact: The PRM will attempt to restart the FM. If the attempt is unsuccessful, voice form responses cannot be recorded or transcribed. If successful, service will be restored.

4328 Minor Error Action 11

Cause: The FM's recovery task encountered an error while trying to reset the MWIs for the indicated voice form. The voice form definition was found in the DR but the form information file, which contains the MWI DNs, could not be accessed. The lower level error indicated occurred while trying to access the information file.

Impact: If the file access problem was not transient, responses will not be available for transcription and responses cannot be left for the indicated form.

If the file access problem was transient (the volume was down and was restarted) then the MWIs associated with this form may not reflect their proper MWI values. A daily (midnight) audit will resolve this problem.

4329 Minor Error Action 10

Cause: A sub-task of the Forms Manager has crashed or failed to communicate with the Forms Manager.

Impact: The FM will restart itself. Callers will not be able to leave responses or retrieve responses for transcription until the FM has restarted successfully. (The outage should last less than one minute.)

4330 Minor Error Action 12

Cause: A sub-task of the FM could not be started.

Impact:
- Case 1. MWIs may not reflect the number of responses waiting for transcription.
- Case 2. A portion of existing responses may not be available until recovery has been performed.
- Case 3. If the administrator attempts to remove a form definition, the system may indicate that a channel is currently being used to record a response, when there is in fact no activity for that definition.

4331 Info Debug Action 10

Cause: The FM was attempting to restart itself and found that it was unable to shut itself down properly. Instead, the FM elected to terminate itself and rely on the PRM to restart the FM.

Impact: The FM will be restarted by the PRM. Callers will not be able to leave responses or retrieve responses for transcription until the FM has restarted successfully. The outage should last less than two minutes.

4334 Minor Error Action 13

Cause: The FM's recovery task has encountered an error. Responses exist on a volume for a form which does not exist in the DR.

Impact: Recovery for this volume cannot be successfully completed. The recovery will be attempted again in five minutes.

4338 Minor Error Action 14

Cause: A problem occurred while trying to synchronize restored voice form data with data which already exists on disk. A file or cabinet was found to be corrupt.

Impact: Only part of the restored data has been synchronized. The problem file or cabinet must be removed and the synchronization process performed again.

4342 Minor Error Action 10

Cause: The version number of the caller response does not match the version number of the form.

Impact: The affected response will not be available for transcription until it has been recovered by the nightly audit.

Actions

Action 1 Attempts will be made by the system to restart the FM. If these SEERs persist for more than ten minutes, this indicates that the recovery has failed. SEERs related to the failed restarting of the FM should be reviewed for their severity and action. If the FM is successfully restarted, normal service will be restored.

Action 2 Contact your Nortel Networks support organization.

Action 3 Contact your Nortel Networks support organization.

Action 4 If a previous SEER indicated that a volume server had gone down, the problem may be transient. Look at all other accompanying SEERs to determine if this appears to be the case. If not, using the MMI, ensure that the offending volume is actually up and running. If the problem cannot be resolved, contact your Nortel Networks support organization.

Action 5
- Case 1. If the lower level return code is 1224, the response cabinet (or response) is missing or has been deleted. This could have occurred naturally if an active form was deleted by the administrator.
- Case 2. If the return code is not 1224 or an active form has not been deleted, then contact your Nortel Networks support organization.

Action 6
- Case 1. If the lower level return code is 4310, the transcriber trying to change the state of the response is not the one who has locked the response for transcription. This should be a very rare occurrence. The only impact is that the response will be transcribed more than once. If this occurs more than once a day, Nortel Networks support should be consulted.
- Case 2. If the lower level return code is 4337, the state of the response was invalid. This indicates either a corruption in that state of the response file or in the view of the response file held by this service. The response will be released for transcription by another service. If that service finds its state to be corrupt then SEER 4313 will be issued, indicating that the response was found to be corrupt and that it has been removed from the system.
- Case 3. If the lower level return code is 1105, the volume is not operating and the response file has been corrupted. The response will be released for transcription by another service. If that service finds it to be corrupted then SEER 4313 will be issued, indicating that the response was found to be corrupt and that it has been removed from the system. If this continues to occur more than once a day, contact your Nortel Networks support organization.

Action 7 If this continues to occur more than once a day, contact your Nortel Networks support organization.

Action 8 The parameters should be adjusted based on the type of error indicated.

Action 9 Contact your Nortel Networks support organization.

Action 10 If this problem occurs more than once a day, contact your Nortel Networks support organization.

Action 11 If the Voice Form Editor software cannot view the indicated form, contact your Nortel Networks support organization. SEER 4302 will appear during the viewing attempt.

Action 12 An attempt to start this task will be made every five minutes by the FM. If the task is successfully started, the above impacts will be cleared. If this problem occurs more than once a day, contact your Nortel Networks support organization.

Action 13 If the error occurs more than two or three times, contact your Nortel Networks support organization.

Action 14 Contact your Nortel Networks support organization.

T1 Diagnostics

Introduction

This SEER class is used to provide T1 diagnostics information and faults. These diagnostics are automatically executed at bootup and can manually be invoked when the card is out-of-service.

Diagnostics results are only sent to the SEER printer if the diagnostics program is informed to do so by the controller/PRM.

All failure results should be investigated and the necessary hardware should be replaced.

Reports

4400 Info Admin No Action

Cause: General information from the T1_Diag program.

Impact: None.

4401 Minor Admin Action 1

Cause: Argument string supplied for T1 diagnostics is incomplete.

Impact: Diagnostic not performed.

4402 Minor Admin Action 1

Cause: Invalid T1 diagnostic test number supplied.

Impact: Diagnostic not performed.

4403 Minor Admin Action 1

Cause: End address is larger that start address.

Impact: Diagnostic not performed.

4404 Minor Admin Action 1

Cause: Invalid type supplied.

Impact: Diagnostic not performed.

4405 Minor Admin Action 1

Cause: Span number is out of range (0-3 is allowed).

Impact: Diagnostic not performed.

4406 Minor Admin Action 2

Cause: Could not acquire timeslot to perform diagnostics.

Impact: Diagnostic not performed.

4407 Minor Error Action 3

Cause: T1 diagnostics routine receive tasking error when attempting to communicate with another task.

Impact: Diagnostic may not have been performed or result could not be reported properly.

4408 Minor Admin Action 4

Cause: T168K register test failed.

Impact: T1 card on this node is marked faulty.

4409 Minor Admin Action 4

Cause: T1 68K connection memory test failed.

Impact: T1 card on this node is marked faulty.

4410 Minor Admin Action 4

Cause: T1 68K Dual Port RAM test.

Impact: Some or all T1 spans on this node are faulty.

4411 Minor Admin Action 4

Cause: T1 302 Dual Port RAM test failed.

Impact: Some or all T1 spans on this node are faulty.

4412 Minor Admin Action 4

Cause: T1 302 Static RAM test failed.

Impact: Some or all T1 spans on this node are faulty.

4413 Minor Admin Action 4

Cause: T1 302 Self test failed.

Impact: Some or all T1 spans on this node are faulty.

4414 Minor Admin Action 4

Cause: T1 302 Register test failed.

Impact: Some or all T1 spans on this node are faulty.

4415 Minor Admin Action 4

Cause: T1 302 voice tap loopback test failed.

Impact: Some or all T1 spans on this node are faulty.

4416 Minor Admin Action 4

Cause: T1 302 Bus loopback test failed.

Impact: Some or all T1 spans on this node are faulty.

4417 Minor Admin Action 4

Cause: T1 302 Line interface loopback test failed.

Impact: Some or all T1 spans on this node are faulty.

4418 Minor Admin Action 4

Cause: T1 302 Relay loopback test failed.

Impact: Some or all T1 spans on this node are faulty.

4419 Minor Admin Action 4

Cause: T1 302 Signalling test failed.

Impact: Some or all T1 spans on this node are faulty.

4420 Minor Admin Action 4

Cause: Result from T1 302 External loopback test.

Impact: T1 spans on this node are faulty failed.

4421 Minor Admin Action 4

Cause: T1 302 Span loopback test failed.

Impact: T1 spans on this node are faulty failed.

4422 Minor Admin Action 4

Cause: T1 302 Snake Loopback test failed.

Impact: T1 spans on this node are faulty failed.

4423 Info Admin Action 5

Cause: Invalid test number provided to T1_diag program.

Impact: Diagnostics not complete.

4430 Minor Admin Action 7

Cause: Could not release timeslots.

Impact: Further activities on this node may affected by timeslots that could not be released.

4431 Minor Admin Action 7

Cause: Too many interrupts received from diagnostics firmware.

Impact: Result information may be lost.

4432 Minor Admin Action 6

Cause: Could not retrieve the diagnostic firmware file ID.

Impact: T1 diagnostics not competed.

4433 Major Error Action 8

Cause: Error trying to change span state to Diagnostics.

Impact: Cannot perform any diagnostics.

4434 Minor Error Action 9

Cause: Error loading firmware into span.

Impact: If error loading diagnostics firmware then the diagnostics are not competed. If error loading T1 firmware then the span cannot be used to handle any calls.

4435 Major Admin Action 10

Cause: Request to test invalid memory size.

Impact: Diagnostics not completed.

4436 Major Admin Action 4

Cause: T1 card memory test failed.

Impact: Some or all T1 spans are faulty.

4437 Minor Admin Action 10

Causes: Invalid register number provided.

Impact: Diagnostics not performed.

4438 Minor Admin Action 10

Cause: Invalid channel number provided.

4439 Minor Admin Action 11

Cause: Could not acquire timeslot to perform diagnostics.

Impact: Diagnostic not performed.

4440 Major Error Action 12

Cause: Could not map T1 card memory.

Impact: Unable to execute any diagnostics.

4441 Info Admin Action 13

Cause: Secondary span not specified.

Impact: Diagnostics not completed.

4442 Major Error Action 15

Cause: Error writing timeslots for diagnostics.

Impact: Diagnostics not completed. Some or all of the T1 spans may be faulty.

4443 Critical Error Action 14

Cause: Error acquiring firmware FID.

Impact: Some or all T1 spans are not functional.

4444 Critical Error Action 14

Cause: Error loading firmware.

Impact: Firmware not loaded for specified span. These spans are not functional.

4445 Major Error Action 7

Cause: Unexpected interrupt received from span.

Impact: Some or all the T1 spans are marked faulty.

Actions

Action 1 If start-up or offline diagnostics, contact your Nortel Networks support organization. Otherwise, check argument string and retry diagnostic.

Action 2 Retry test. If problem still exists you may need to reboot node to release these time slots.

Action 3 Check return code provided in the SEER and take any action recommended for that error. Otherwise, contact your Nortel Networks support organization.

Action 4 Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503) for more information. If the problem still cannot be resolved, contact your Nortel Networks support organization.

Action 5 If testing via the DiagCntl utility, check parameters and try again. If the diagnostics fail, consult the *Trouble-locating and Alarm-clearing Procedures* guide (NTP 557-7001-503).

Action 6 Contact your Nortel Networks support organization.

Action 7 Retry the test. If problem persist, consult the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503), for information regarding T1 diagnostics failure.

Action 8 Verify that the T1 Card and Spans are out-of-service. Repeat test. If problem persists try rebooting the node.

Action 9 Check the return code provided and take necessary action. If problem persists, replace T1 card and execute diagnostics. If the diagnostics fail, refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503), for information on diagnostics failure.

Action 10 If the problem occurs when executing Startup or Offline diagnostics, retry the operation. Reboot the node if possible. If the problem persists, contact your Nortel Networks support organization or refer to the *Trouble Locating and Alarm Clearing Procedures* (NTP 557-7001-503) for information on T1 diagnostics failure.

Action 11 Retry test. If problem still exists then you may need to reboot node to release these timeslots.

Action 12 Check the previous SEERS for any sign of memory problems on the system. If none, contact your Nortel development organization.

Action 13 This problem should only occur in the manufacturing flow. If so, specify the secondary span and re-start the diagnostics.

Action 14 Execute diagnostics again. If the problem persists, contact your Nortel Networks support organization.

Action 15 Refer to the *Card Replacement Procedures* manual (NTP 297-7001-502) and replace the T1 card. If the problem persists, contact your Nortel Networks support organization.

T1 Communication

Introduction

The T1 communication task is responsible for processing all T1 card interrupts, transmitting and receiving telephony messages and managing the T1 voicetap.

All message and time slot requests are queued for the relative T1 span link handler/firmware.

T1 Comm errors may cause loss of telephony messages or timeslots, and may result in a node crash for fatal errors.

Reports

4600 Critical Error Action 1

Cause: Cannot locate T1 Comm Task.

Impact: Current comm task request will not be processed.

4601 Critical Error Action 2

Cause: Error tasking with T1 Comm task.

Impact: Current comm task request will not be processed.

4602 Critical Error Action 3

Cause: Error mapping T1 card configuration space.

Impact: T1 node cannot be used.

4603 Critical Error Action 3

Cause: Error mapping T1 card I/O space.

Impact: T1 node cannot be used.

4604 Critical Error Action 3

Cause: Error mapping T1 card shared memory space.

Impact: T1 node cannot be used.

4605 Critical Error Action 3

Cause: T1 voice tap stuck in reset state.

Impact: T1 node cannot be used.

4606 Critical Error Action 3

Cause: Internal voice tap fault detected.

Impact: T1 node cannot be used.

4607 Major Error Action 4

Cause: Connection memory queue is full.

Impact: Current timeslot request will be ignored.

4608 Major Error Action 4

Cause: Receive message queue is full.

Impact: Last message(s) received will be ignored.

4609 Critical Error Action 4

Cause: Receive message queue has been corrupted.

Impact: If redundant span is equipped then switching will occur.

4610 Critical Error Action 4

Cause: Transmit message queue is full.

Impact: Last transmit request was rejected.

4611 Minor Error Action 5

Cause: Span is not in an appropriate state for current request.

Impact: Request is not processed.

4612 Minor Error Action 5

Cause: Link Handler did not register with T1 comm task.

Impact: Link Handler requests not processed.

4613 Critical Error Action 4

Cause: Parity error writing to connection memory.

Impact: TSW fault is report and card switching will occur.

4614 Critical Error Action 3

Cause: Access error writing to connection memory.

Impact: TSW fault is report and span switching will occur.

4615 Critical Error Action 4

Cause: TSW queue is corrupted.

Impact: TSW fault is reported and span switching will occur.

4616 Major Error Action 5

Cause: Transmit message size is invalid.

Impact: Transmit request is not processed.

4617 Major Error Action 5

Cause: Receive message size is invalid.

Impact: Receive request is not processed.

4618 Major Error Action 4

Cause: TSW interrupt received but no interrupt pending bit is set.

Impact: No impact.

4619 Major Error Action 4

Cause: T1 interrupt received but no interrupt pending bit is set.

Impact: No impact.

4620 Critical Error Action 6

Cause: T1 comm task could not register.

Impact: Node cannot be used.

4621 Critical Error Action 3

Cause: Span DPRAM does not exist.

Impact: Span is declared faulty.

4622 Critical Error Action 3

Cause: TSW stuck in initialization.

Impact: Node is declared faulty.

4623 Critical Error Action 4

Cause: Fault in requesting timer.

Impact: Node cannot be used.

4624 Critical Error Action 4

Cause: Connection memory queue timeout occur.

Impact: Hardware is declared faulty.

4625 Critical Error Action 3

Cause: Cannot locate T1 card configuration space.

Impact: Node cannot be used.

4627 Minor Error Action 5

Cause: Message received from a span to which the Link Handler has not logged in.

Impact: Message will not be processed immediately.

4628 Major Error Action 3

Cause: TSW fault interrupt received from a span to which the Link Handler has not logged in. Fault could not be registered.

Impact: Node is faulty.

4629 Major Error Action 3

Cause: PLL interrupt received from a span to which the Link Handler has not logged in. Fault could not be registered.

Impact: Node is faulty.

4630 Critical Error Action 3

Cause: Could not perform diagnostics time slot requirements.

Impact: Span is marked faulty.

4631 Critical Error Action 7

Cause: WatchDog timeout has occurred for the specified span.

Impact: If redundancy exists, then switching will occur. Span is reset and reloaded.

4632 Critical Error Action 4

Cause: Time switch queue corruption.

Impact: All spans will be marked faulty.

4633 Critical Error Action 4

Cause: T1 Timewatch audit routine has detected a mismatch.

Impact: Possible timeslot corruption. May be double timeslot noise.

4676 Critical Error Action 8

Cause: Parameter string received by T1_Base program is invalid.

Impact: T1 node is not fully loaded.

4677 Major Error Action 5

Cause: Error initiating T1 Comm task.

Impact: Cannot use T1 node.

4678 Major Error Action 5

Cause: Error initiating T1 Loader task.

Impact: Cannot use T1 node.

Actions

Action 1 If the problem persists, disable and reenable the node. If this does not help, contact your Nortel Networks support organization.

Action 2 If the problem persists, disable and reenable the node. If this does not help, contact your Nortel Networks support organization.

Action 3 Refer to the *Card Replacement Procedures* guide (NTP 557-7001-502) and replace the T1 card.

Action 4 If the problem persists, disable and reenable the node. If the problems continue to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-502) and replace the T1 card.

Action 5 Disable and reenable the span. If the problem persists, disable and reenable the node. If this still does not correct the problem, contact your Nortel Networks support organization.

Action 6 Try disabling and reenabling the node. If the problem still exists, contact your Nortel Networks support organization.

Action 7: If the problem persists, check the T1 firmware and hardware.

Action 8 Disable the node. If the problem persists, contact your Nortel Networks support organization.

T1 Link Handler (T1LH)

Introduction

The functions of the T1 Link Handler (T1LH) are

- providing telephony signalling services to the application programs such as processing and answering an incoming call, making an add on call, conferencing and transferring a third party call, and so on.
- presenting the T1 trunk as a single entity to the system for processing T1 trunk related maintenance operations, such as disabling a T1-span, and so on.

Software Architecture

The T1LH is composed of 5 different units:

1. The *Control module* is responsible for loading the firmware at the system initialization time and the initialization of the other modules.
2. The *Trunk module* is responsible for the maintenance operation of the span.
3. The *Channel module* coordinates with the other system programs to provide telephony services for the application. The channel module is not only required to take care of itself but also the 24 channels running on the T1-Span.
4. The *Timer module* is responsible for providing timing services for other modules.
5. The *Message Routing module* acts as a gateway to provide the communication between the T1LH and the lower layer software.

To classify these modules and channels the following numbering scheme is used in the design

- For the modules
  - 30 (Control Module)
  - 31 (Trunk Module)
  - 32 (Channel Module)
  - 33 (Message Dispatcher)
  - 34 (Timer Module)

- For the channels
  - The Channel number will be numbered from 0 to 23, where 0 represents the first channel and 23 represents the 24th channel.

General Format

The format used is:
'SEER Code' [Span Number:Module or Channel Number] SEER text + location code
For example:

- 4731 [0:30] Fails to Comm with [T1Loader:FFFFFFFFFFFFFFFF:4602] 1-13-3-1

4731 is the SEER code used by the T1LH; [0:30] indicates span 0, Control Module 30.

This SEER means the Control Module in Node 13, Card 3, Span 1 fails to communicate with the T1Loader with the task ID FFFFFFFFFFFFFFFF (which means not available) with error code 4602 returned from the T1Loader.

Trunk Module

Associated with the module, a set of commands are supported by the trunk module in order to satisfy the maintenance operation. The possible commands are:

Trunk Command Code	Description
TrunkIdle	No command is currently active
S_InServ	Startup to InServe mode
S_Stdby	Startup to Standby mode
S_Disable	Startup to disable Offline mode
INSV	Enable a trunk + InService option
Standy	Enable a trunk + Standby option
Disable	Put a trunk out of service
Shutdown	Put a trunk and channels OOS
PSwitch	Polite switching
BSwitch	Brute force switching
OSwitch	Switch a trunk to online mode
DiagPass	Diagnostic on a faulty span is over, reset to OOS
Query	Query the current status of the module
RefMaster	Enable span to provide timing reference
RefSlave	Disable span to provide timing reference
DevDied	Shutdown a particular channel

Under normal working conditions no SEERs should be generated by the trunk module; however, if SEERs are generated, this is usually because of an unexpected event or an operation failure. The following is a list of all possible events with which one could decode and understand the SEERs generated by the trunk module.

Trunk event code	Description
E_S_INSV	StartUp to the InService mode
E_S_STDY	StartUp to the Standby mode
E_S_DIS	StartUp to the Disable Offline mode
E_INSV_ENABLE	Enable a trunk + InService option
E_STDY_ENABLE	Enable a trunk + Standby option
E_DISABLE	Put a trunk out of service
E_SHUTDOWN	ShutDown a trunk including channels
E_PSWITCH	Polite switching
E_BSWITCH	Brute force switching
E_OSWITCH	Switch a trunk to online mode
E_MSG_ACK	Maintenance message
E_UN_MSG	Unsolicited Maintenance message
E_HWFAULT	Hardware Fault detected by the T1 loader
E_TIMEOUT	Timeout occurs
E_IDLE	Report Channel goes idle
E_LOGOUT	Report Channel logout
E_DIAGPASS	Diagnostic on a faulty span is over
E_QUERY	Query the current status of the trunk module
E_REFMASER	Enable span to provide timing reference
E_REFSLAVE	Disable span to provide timing reference
E_DEVDIED	Shutdown a channel

The Trunk Module can also have different states.

Trunk status	Description
Startup	a transient state in the T1 that indicates the TILM is bringing up the span
InService	The span is running in an active state
OutOfService	The span is disabled
Standby	The span is ready to go to the InService state on request
Faulty	Faults are detected in the span
AlarmActive	A red and/or yellow alarm is detected

Channel module

The main concept in the Channel module is its set of commands which directly indicates which operation is currently working on a particular channel. The following is the lists of commands supported by the Channel module.

Channel command code	Description
BaseCall	Originate a Base Call
AddOnCall	Originate an Add on Call
InitXferCall	Initiate a call transfer sequence
Transfer	Complete to transfer a Call
Conference	Conference a 3-party Call
Reconnect	Reconnect a Call
Disconnect	Disconnect a Call
Answer	Answer a Call
MainteEnable	Maintenance enable a channel
MainteDisable	Maintenance disable a channel
AgtEnable	Agent enable (enable a channel)
AgtDisable	Agent disable (disable a channel)
IncRing	Incoming call initiated with a ring
IncPCI	Incoming call initiated with the SMDI PCI message
IncIdle	Channel is sevicing an incoming call
OutIdle	Channel is servicing an outgoing call
Idle	Channel is idle

Each command is composed of a sequence of primitives and these primitives pinpoint the current operation of the command. The following is the list of primitives used to construct the above commands.

Primitive code	Description
1	Send a telephony message to firmware
2	Use DSP port to dial a number
3	Send a MSP to application

Like the trunk module, there is a set of events to drive the operation of the Channel module. The following is the list of events:

Channel event code	Description
E_TELE_ACK	Telephony acknowledgement message
E_FAR_DISC	Far end disconnect
E_FAR_OFFHOOK	Far end ready for digits
E_RDYKEY	Set Ready Key from VSS
E_AGENT_REG	Agent login/logout cmd
E_INFO_LINK	SMDI Link up and down
E_CHAN_REG	GTI login/logout process
E_TIMEOUT	Timeout reported
E_SPCHPATH	Connected or Disc. a speech path
E_QUERY	Query the channel status
E_CALL_PROG	OutDialing acknowledgement
E_AGT_REPLY	Maintenance Cmd acknowledgement
E_SHUTDOWN	Shutdown Reg from Trunk Module
E_ORIG_BASE	Originate a Base call
E_ORIG_ADD	Originate an Add on call
E_ORIG_XFER	Originate an InitXfer call
E_TRANSFER	Transfer a call
E_CONFERENCE	Conference a call
E_RECONNECT	Reconnect a call
E_DISCONNECT	Disconnect a call
E_ANSWER	Answer a call
E_MAINTE_CMD	Maintenance Operations
E_INC_RING	Far end ringing
E_INC_PCI	PCI message from far end

Other acronyms used by the Channel Module indicate the status of calls in progress.

Call Progress Message	Description
VoiceAns	Call is answered by voice
Ringing	Call is still ringing
Busy	Call is busy
Re-order	Re-order tone is detected from switch
No Dial tone	No dial tone is detected from the switch

Other Modules

The Control module, Timer module, and the Message Dispatcher module have only a very limited operation. The SEERs generated by these modules are self-explanatory.

Reports

4700 Info System Action 1

Cause: System boot-up; trunk being enabled/disabled; undesired events occurred.

Impact: If the SEER indicates a Faulty or Alarm mode, this implies that the span is no longer able to provide any services.

4701 Info System Action 2

Cause: A summary indicates the failure of the T1LH in starting up the span

Impact: The span is no longer able to provide any services.

4702 Info Error Action 3

Cause: When the T1LH tries to download the firmware, the lower layer (T1LH) indicates that the span is not in the expected state. Put the span into the standby state.

Impact: The span is no longer able to provide any services.

4703 Info Error Action 4

Cause: The T1LC fails to load the firmware.

Impact: This span is no longer able to provide any services.

4704 Critical Error Action 5

Cause: T1LH failed to fetch the binary file for holding the firmware.

Impact: All T1 spans are no longer in service.

4705 Info Error Action 6

Cause: T1LH fails to reset the span when the T1LH is requested to take the span to the InService mode.

Impact: The span cannot go to the InService Mode. The redundant span will take over automatically if it is available.

4706 Info Error Action 7

Cause: T1LH failed to reset the Span.

Impact: Switching to the Redundancy span fails.

4707 Info System Action 8

Cause: T1LH failed to release all the time slots assigned to its 24 channels.

Impact: If the T1LH comes up from a system boot-up, there should be no indirect impact.

4708 Info System Action 9

Cause: The Trunk module keeps a 10-bit register to keep track of the operating status of the span. If there is any change in the bitmap this SEER is generated to report the changes.

"RedAlarm" means a loss of signalling from the Far end (DMS or channel bank).

"YellowAlarm" means that the Far end is experiencing red alarm and is transmitting yellow alarm to MSM. This is common after T1 switch and the yellow alarm is ignored, in this case, by the MSM.

"BlueAlarm" is sent by the Far end to signal its problem, and the MSM reports the condition via SEERs. The administrator should investigate the cause of this in the Far end equipment. If this alarm persists, the MSM will likely detect loss of frame which will cause the MSM to report RedAlarm. This, in turn, will cause the software to switch link.

The following terms are used in the SEER output.

SEER Term	Description
Red Alarm	RedAlarm(Critical)
Yellow Alarm	YellowAlarm (Critical)
Blue Alarm	BlueAlarm (Minor)
Bipolar Violation	Bipolar Violation OverFlow (Minor)
FrameBitErr	Framing Bit Errors (Minor)
Signal Quality	Signal Quality Drop below satisfactory standard. (Minor)
T1 Clock Slip	T1 Clock Slip below satisfactory standard. (Minor)
Hardware Fault	Firmware reported hardware fault detected. (Critical)
Software Fault	T1LH detected fault in the lower layer component and report no longer be able to operate any more. (Critical)
Span WatchDog Timer	T1 Span WatchDog timer expired (Critical)
Voice Tap Fault	The Voice Tap experiences a hardware problem. (Critical)
PhaseLockLoop Timer	Phase-lock-loop Watch Dog timer expired. (Critical)

Impact: If the error is “Critical”, the span is no longer available for services. Otherwise, span is still operating as normal but with degradation.

4710 Info System Action 10

Cause: T1LH failed to disconnect all the outstanding calls when the span experienced a change of the state from InService to Standby/OOS/Faulty/Alarm.

Impact: The current services will not be shutdown properly.

4711 Info System Action 11

Cause: The T1LH receives calls in any states other than the “InService” state.

Impact: Call will not be presented to the upper layer programs.

4712 Info Error Action 12

Cause: T1LH fails to enable/disable a span to provide timing reference.

Impact: System may be running without a timing reference or multiple timing references.

4713 Info Error Action 12

Cause: T1LH fails to check if the span is providing timing reference or not.

Impact: System may be running without a timing reference or multiple timing references.

4716 Info Debug No Action

Cause: T1LH Internal Software problem.

Impact: No direct user impact.

4717 Info Error Action 13

Cause: The T1LH tried to execute a particular command for a channel but failed on timing out a particular primitive.

Impact: Has to wait for the far end to disconnect the call to regain the control of the faulty channel.

4718 Info Error Action 14

Cause: The T1LH tries to execute a particular maintenance command but fails on timing out a particular message sent to the firmware.

Impact: The current maintenance will be failed and span will got to faulty state.

4719 Info Error Action 15

Cause: The T1LH fails to either get a ringing or a SMDI message within the timeout interval.

Impact: If T1LH fails to get Ringing/Seizure, the call may be dropped before the DMS presents the call to the MSM. If T1LH fails to get SMDI message, the default SMDI message is used.

4725 Info System Action 16

Cause: The T1LH received an unexpected message from the firmware.

Impact: No user impact.

4726 Info Error Action 17

Cause: The T1LH failed to retrieve a message from the firmware via the T1COMM.

Impact: The T1LH internal state may not be consistent with the actual state of the line. Depending on the circumstances, the call may be dropped by the application.

4727 Info Debug Action 18

Cause: The T1LH failed to communicate with the firmware and dumped the message to indicate the missed message.

Impact: None

4728 Info Debug No Action

Cause: Debugging SEERs.

Impact: None

4730 Info Error Action 19

Cause: The T1LH failed to register with a particular task during the startup.

Impact: The span will be unable to provide any services.

4731 Info Error Action 20

Cause: The T1LH fails to communicate with other task.

Impact: If the failed task is T1COM then the span is no longer be able to provide any services, otherwise, the current command has failed. The T1LH will try to correct the failure.

4735 Info System Action 21

Cause: The T1LH received an event not expected with the current state and operating commands.

Impact: The session may be dropped or the system will have to wait for the user to hang up in order to regain control of the channel.

4736 Info System No Action

Cause: The firmware complains the message is not valid currently.

Impact: The command will be failed and the channel will be recovered once the user disconnects the current call.

4737 Major Error Action 22

Cause: The firmware detected a Red or Yellow Alarm and reported to the T1LH.

Impact: The span will be out-of-service.

4738 Major Error Action 23

Cause: The T1LH failed to perform some critical operation with the lower layer software.

Impact: The span will go to a faulty state. The redundant T1 span should take over.

4739 Major Error Action 24

Cause: The lower layer software detected a hardware fault and reported it to the T1LH.

Impact: The span will go to the faulty state. The faulty components are logged in a 16 bit register and presented as decimal values:

- Span failure 1
- Static RAM 2
- Dual Port RAM 4
- Framer 8
- Line Driver 16
- Signalling Circuit 32
- Receiver Buffer 64
- 68K Sanity 128
- T1 Transition Module 256

The presented value can be the sum of the above values. For example, if the Static RAM and the Line Driver have a problem, the value is 2 + 16 = 18.

4740 Info System Action 25

Cause: T1LH tried to communicate with a task that was registered with T1LH but no longer exists.

Impact: That channel is out-of-service temporarily until the application comes back again. Also, more similar SEERs may come out.

4741 Info Debug No Action

Cause: T1LH detected the channel number is out of range.

Impact: Debugging SEERs

4744 Info Error Action 26

Cause: The T1LH fails to recover itself in an error situation.

Impact: The command will be failed and the channel will be recovered once the user disconnects the current call.

4745 Info Error Action 26

Cause: The T1LH fails to set up the time slot for the application.

Impact: Application may terminate itself. Channel will be recovered once the user disconnects.

4746 Info Error Action 27

Cause: T1LH failed to use the Voice Port Handler to complete the out-dialing activities.

Impact: The command indicated in the SEER has failed and the channel will go on hook.

4747 Info Admin Action 28

Cause: The line is not configured properly.

Impact: The outgoing call or DMS agent login/logout action will fail. The system will retry.

Actions

Action 1 If the span is Faulty or Alarm, service should be switched to the redundant span automatically if redundant span is available. Otherwise, check the cabling and run the off-line diagnostic for the span.

Action 2 Check the surrounding class 47 SEERs to obtain more information.

Action 3 Switch to the redundant span.

Action 4: Switch to the redundant span and run offline diagnostics.

Action 5 Contact your Nortel Networks support organization.

Action 6 Try again or check the cable. Run off-line diagnostics and replace the card if necessary. If error persists, contact your Nortel Networks support organization.

Action 7 Try again. Run off-line diagnostics. If error persists, contact your Nortel Networks support organization.

Action 8 Run an off-line diagnostic on the card.

Action 9 For Critical errors, run OOS diagnostics and if necessary replace the card. For Blue alarm, check the terminal equipment or the channel bank. For Bipolar violation overflow, Framing bit errors, excessive slip, or poor signal quality, check the configuration (that is, line code and source of the timing reference on both sides.)

Action 10 Check if the particular channel has been unloaded already. If this is the case, no action is required. However, if switching to the redundant span is performed, disable and enable the faulty channel again.

Action 11 If disabling or switching taking place, ignore. Otherwise disable the channel on the DMS side to prevent further interruptions.

Action 12 The system will eventually recover itself. If the problem persists, disable and reenable the span and run OOS diagnostics.

Action 13 If the problem persists, disable and reenable the span. Run off-line diagnostics.

Action 14 Run an off-line diagnostic to the span. If the problem persists, call your Nortel Networks support organization.

Action 15 If problem persists, check the cabling for both the T1 and SMDI link.

Action 16 If problem persists, do an off-line diagnostic to the span. There may be a memory problem.

Action 17 Disable the span and enable it according to the instructions in Chapter 3 of the *Card Replacement Procedures* (NTP 557-7001-502). If the problem persists, do an off-line diagnostic to the span. There may be a memory problem.

Action 18 Check the surrounding SEERs for additional information. If unclear, contact your Nortel Networks support organization.

Action 19 Disable the span and reenable it according to the instructions in Chapter 3 of the *Card Replacement Procedures* (NTP 557-7001-502).

Action 20 If the failed task is T1COM, disable and reenable the span, if not, ignore the problem. The T1LH will recover the problem. If the problem persists, contact your Nortel Networks support organization.

Action 21 Disable and reenable the channel.

Action 22 Check the corresponding T1 cable or run an off-line diagnostic to the span that reported the alarm.

Action 23 Check the surrounding SEERs for additional information or run an off-line diagnostic to the faulty span.

Action 24 Run an off-line diagnostic to the faulty span. If necessary, replace the card.

Action 25 No action is required. When the application comes back the application will recover the channel.

Action 26 Check the surrounding SEERs for additional information and work according to their action items.

Action 27 If the SEER indicates no dial tone, check the corresponding VPH SEER. This may be either a bad channel connection or DSP problem. This can be verified further by disabling and enabling the problem channel to see if the failure is consistent. If the SEER indicates Re-order and the current command is Maintenance enable/ disable or Agent enable/ disable, check the agent login/ logout code datafilled in the hardware database. If error persists, contact your Nortel Networks support organization.

Action 28 Make sure the interface type between the channel bank and the switch is the same.

Diagnostic Utility (DC)

Introduction

The Diagnostic Utility (DU) provides the high level interface to the diagnostic capabilities provided in Meridian Mail.

Diagnostic Utility runs as a background task in a CLI (Command Line Interpreter) shell. Its job is to interpret the commands entered in the shell, and then command the PRM (Program Resource Manager) to load and execute diagnostic programs. During the execution of a diagnostic program it may give updated information to the Diagnostic Utility. When it is finished, it will pass back result information.

This program is for the design, manufacturing and task community, and should never be run by the customer. This class also includes the SEER codes for the stress test programs memhog, diskdog, busbang and testdiag.

Reports

4801 Info Admin Action 1

Cause: Cannot register the task ID in the name server.

Impact: Diagnostic programs cannot communicate with Diagnostic Utility.

4802 Info Admin Action 2

Cause: Most likely the number of instances of the program has reached its limit.

Impact: The job cannot load and has been deleted from memory.

4803 Info Admin Action 3

Cause: A job was manually removed from the jobs list.

Impact: None

4805 Info Admin Action 2

Cause: Memory for job storage has reached maximum capacity.

Impact: New job requested with ‘tst’ command has been ignored.

4806 Info Admin Action 4

Cause: Diagnostic Utility cannot register with PRM.

Impact: Diagnostic Utility cannot restart jobs on nodes where processor cards have been pulled out.

4807 Info Admin No Action

Cause: A 68K card had been removed and is now being reinserted.

Impact: Any diagnostic programs on that node that have crashed, are now being restarted.

4808 Info Admin Action 5

Cause: Abnormal sequence of node status information sent from PRM.

Impact: Diagnostic Utility cannot restart jobs on dead node, if a node has died.

4810 Info Admin Action 6

Cause: Problems with internal management of jobs.

Impact: Data management of jobs may be corrupted.

4821 Info Admin No Action

Cause: Testdiag is reporting.

Impact: None

4826 Info Admin Action 7

Cause: Memhog program is reporting.

Impact: If message indicates failure, memory is faulty or memory allocation error has occurred.

4831 Info Admin Action 7

Cause: Diskdog program is reporting.

Impact: If message indicates failure, diskdog could not start.

4841 Info Admin No Action

Cause: Busbang program is reporting.

Impact: None. The only negative message is that the parameters are incorrect.\

4845 Info Admin No Action

Cause: Debug information. Used only in the test engineering environment.

Impact: None

4850 Info Admin Action 7

Cause: A diagnostic program has returned a result for which the pass count is less than the done count.

Impact: Diag_util indicates a failure.

Actions

Action 1 Contact your Nortel Networks support organization.

Action 2 Contact your Nortel Networks support organization.

Action 3 Contact your Nortel Networks support organization.

Action 4 Contact your Nortel Networks support organization.

Action 5 Contact your Nortel Networks support organization.

Action 6 Contact your Nortel Networks support organization.

Action 7 Contact your Nortel Networks support organization.

Toolkit Master (TKM)

Introduction

The Toolkit Master (TKM) subsystem acts as a resource manager for ACCESS applications that request a toolkit session to be started. It notifies ACCESS applications of disconnect and other session events, and maintains the status of TC and file transfer tasks.

Failures in the TKM can cause

- failure to initiate ACCESS application sessions (applications will normally recover from these)
- time-outs (error 3) returned to the API function

A Class 50 SEER usually contains

- the timing (synchronous or asynchronous)
- nature of the error
- task error numbers
- name of failed function

TKM SEERs are organized by report numbers into five groups:

21	01 - 09:	TC-related errors
22	11 - 19:	TK-related
23	21 - 29:	errors in incoming requests
24	31 - 39:	errors disconnecting
25	91 - 99:	general failures

Reports

5001 Critical Error Action 1

Cause: TC task is not running and could not be located by TKM.

Impact: Usually, the application process will time out and the message destined for the application processor will be lost. Usually, the TC restarts automatically.

5002 Critical Error Action 1

Impact: Usually, the application process will time out and the message destined for the application processor will be lost. Usually, the TC restarts automatically.

Cause: A synchronous task error has occurred while communicating with the TC.

5011 Major Error Action 2

Cause: A task error has occurred while sending a message to a TK task.

Impact: A message will probably be lost and the ACCESS application will probably time out and then recover.

5012 Info Debug Action 3

Cause: TK startup was refused by the TK task. The TKM probably tried to hand out a TK task which had already been allocated. This almost certainly implies a significant resource management failure in the TKM, VCA, VSS or TK.

Impact: Since this TK will reset itself and become available once again, the user impact is low. However, this SEER signifies a major software error.

5013 Minor Error Action 4

Cause: A tasking error occurred during ACCESS application startup.

Impact: An ACCESS application session command failed to be processed. Application will receive error code #3.

5014 Minor Error Action 5

Cause: The internal file transfer task which performs the data transfer could not be started.

Impact: Admin Plus cannot be used to download files.

5015 Minor Error Action 5

Cause: The toolkit server task could not be started because of a task error.

Impact: External Notification service feature of ACCESS is not available.

5016 Minor Error Action 6

Impact: The ACCESS link will not start.

Cause: ACCESS serial cable is plugged into the wrong serial port on the VoiceMail side.

Impact: None

5017 Critical Error Action 7

Cause: Either the system has not been configured correctly or the hardware database cannot be accessed.

Impact: If this happens on a node running Admin Plus software, Admin Plus will not function. If this error is reported on a node running the ACCESS link, the ACCESS feature will not function.

5018 Problem Error Action 8

Cause: The TKM could not locate the TC task(s) on the node.

Impact:
1. The session will be aborted.
2. Upon recovery, if the TKM cannot locate (all) the TC tasks, the TKM will terminate and be restarted. This will be followed by SEER 5091. See SEER 5091.

5021 Info Debug Action 9

Cause: The TKM received a message which was too short to be a valid request. The message is ignored.

Impact: The problem is minor unless it happens frequently.

5024 Info Admin Action 10

Cause: An optional feature was not enabled.

Impact: The ACCESS application is prevented from performing any Meridian Mail functions.

5031 Info Debug Action 11

Cause: The TKM received notification of a disconnect. In trying to pass this on to the application, the TKM failed to find the corresponding TK task in its internal table.

Impact: This SEER indicates only a possible problem.

5041 Problem Error Action 17

Cause: The TKM has failed to read the system profile to obtain the default ACCESS customer number.

Impact: TKM will not consider the customer number when issuing channel requests when the default ACCESS customer number if specified. This will not impact an ACCESS application that explicitly sets the customer number.

5050 Info Admin No Action

Cause: The external notification server ACCESS application is operational.

Impact: None

5051 Major Admin Action 12

Cause: The external notification server ACCESS application is not functioning properly.

Impact: The host Email system which is monitoring users' voice mailbox status information will have lost some of the information.

5052 Minor Error Action 13

Cause: An external notification message could not be passed to the ACCESS application due to a software error.

Impact: The ACCESS application will not necessarily know that the information has not been sent. In the case where the application is attempting to execute an ACCESS function, the application will receive error #3 indicating a TIMEOUT has occurred.

5053 Minor Error Action 14

Cause: The ACCESS application command attempting to read or write a mailbox has failed.

Impact: The ACCESS application will receive error #111 indicating command failure due to an Meridian Mail problem.

5054 Minor Admin Action 15

Cause: The toolkit server failed to start because a system problem was encountered.

Impact: No external notification services via ACCESS are available at this time.

5091 Critical Error Action 16

Cause: A fatal error has occurred in the TKM. The exact error is shown in the message.

Impact: TKM will terminate. ACCESS will be unavailable.

Actions

Action 1 If the error persists, contact your Nortel Networks support organization.

Action 2 If it appears that this is causing a significant problem, contact your Nortel Networks support organization. The ACCESS application may need to be restarted.

Action 3 Contact your Nortel Networks support organization. Note VCA, VSS, TK, TKM SEERs preceding this message.

Action 4 If problem persists, contact your Nortel Networks support organization.

Action 5 Contact your Nortel Networks support organization.

Action 6 Refer to the chapter on Hardware Administration in the *System Administration Guide* (NTP 555-7001-215) to check the dataport configuration.

Action 7 Contact your Nortel Networks support organization.

Action 8 If the problem persists, contact your Nortel Networks support organization.

Action 9 If the SEER appears frequently, contact your Nortel Networks support organization.

Action 10 The ACCESS application requires an optional feature of Meridian Mail which has not been enabled. Contact your Nortel Networks support organization if you wish to obtain the optional feature.

Action 11 If this SEER appears frequently, contact your Nortel Networks support organization.

Action 12 Contact your Nortel organization responsible for supporting the ACCESS applications for External Notification.

Action 13 None.

Action 14 Verify if the mailbox account can be viewed via the administration console and can be accessed. If problem persists contact your Nortel Networks support organization.

Action 15 Contact your Nortel Networks support organization.

Action 16 Contact your Nortel Networks support organization.

Action 17 Check whether the default ACCESS customer number is set correctly in General Options. If the problem persists, contact your Nortel Networks support organization.

Voice Toolkit (TK)

Introduction

The Voice Toolkit (TK) is the component that performs API functions invoked by other ACCESS applications such as IVR that run on applications processors connected by the Meridian ACCESS link.

A SEER normally indicates that the ACCESS application executed a command that failed to complete because of system error.

Impact is minimal. However, if any of these SEERs persist, contact your Nortel Networks support organization.

A Class 51 SEER contains

- command that failed
- return code (which can be checked in the appendix to this manual, and may provide more specific information)

Reports

5101 Minor Error Action 1

Cause: A system error was encountered causing the command executed by an ACCESS application to fail.

Impact: In the majority of cases, the ACCESS application will receive an error code, usually:

111 - command failure

5104 Major Admin Action 2

Cause: An incoming call has arrived for the IVR DN displayed, but no ACCESS application is driving the channel.

Impact: The caller will be transferred to the Revert DN. If no Revert DN is specified, the caller will hear the following message: “That service is unavailable at this time. Please try again later. Goodbye.”

5105 Major Admin Action 3

Cause: A switch-back has occurred from an unsupported service. Supported services are Voice Messaging (MMUI) and Hospitality Staff Voice Messaging.

Impact: The call will be dropped and the channel will be released. The TK, started as a result of a StartTK command from the VSS, will terminate. No active ACCESS application handled the call since the channel was under the control of the service that was switching back at the time.

5106 Info Admin Action 4

Cause: A password violation occurred while attempting to logon to a mailbox.

Impact: The SEER reports a possible attempt to gain illegal access to a mailbox. Access to the mailbox will be locked out (disabled).

Actions

Action 1 If error persists, contact your Nortel Networks support organization.

Action 2 Verify that the ACCESS application using this channel is functioning correctly. If you suspect a channel problem, disable the channel and contact your Nortel Networks support organization.

Action 3 Your Meridian Mail administrator should verify that the service switched to by ACCESS is, in fact, Voice Messaging (MMUI) or Hospitality Staff Voice Messaging.

Action 4 Contact the owner of the mailbox to determine if the user had a problem accessing the mailbox and determine if access to the mailbox should be enabled.

Toolkit Communications (TC)

Introduction

TC is the ACCESS component responsible for the delivery and reception of data packets on the Meridian ACCESS link.

Failures in the TC may result in the incorrect operation of ACCESS applications running on the UNIX processor which in turn may affect any calls in progress that are controlled by these applications.

Reports

5201	Minor Error	Case 1Action 1 Case 2-6Action 4 Case 7-9Action 5

Cause: The TC could not deliver a data packet. The packet is considered lost.

1. “Send error to TK”, TC had problems sending a data packet to the voice toolkit (TK).
2. “Send error to TKM”, TC had problems sending a data packet to the toolkit master (TKM).
3. “Send to toolkit server” or “Send error to TKS”, TC had problems sending a data packet to the toolkit server (TKS).
4. “Send error to FT_OM” or “Send OnError to FT_OM”, TC had problems sending a data packet to the operational measurements file transfer (FT_OM).
5. “Error occurred while sending packet to MRS” or “Send OnError to MRS”, TC had problems sending a data packet to the messages router server (MRS).
6. “Send to voiceless server” or “Send error to VLS”, TC had problems sending a data packet to the voiceless server (VLS).
7. “Bad pkt ID”, the receiving toolkit ID of the data packet was invalid.
8. “The error and task ID are”. This is a subsequent SEER to cases 1-7 for the case when TC encountered a tasking error. The SEER will indicate the error code and the ID of the offending task.

9. “Error occurred while sending packet to PC, disabling link”, TC has reached the maximum retry limit for delivery a data packet, or TC has received an acknowledgment packet which is out of sequence.

Impact: 1-8.The ACCESS/MM Reporter/MM AutoAdmin application on the UNIX/PC processor will receive a timeout error on the attempted command as the packet was lost.

9. The AdminPlus/MSLink link will be terminated.

5202 Minor Error Cases 1-7Action 2

Cause: The TC was unable to allocate all necessary message buffers or retrieve all necessary information at start-up time. This could be due to a configuration problem.

1. “Could not find allocated memory space for TC table, disabling link”, TC was not able to find the TC table record defined in the toolkit master (TKM).
2. “MSLink plugged into wrong dataport, disabling link”, the MSLink serial cable plugged into wrong serial port on Meridian Mail.
3. “Error allocating memory segment when reading HWDB” or “Error initializing heap when reading HWDB”, TC did not have enough memory to read the hardware database during start-up.
4. “Error opening hardware database”, “Error retrieving SBC location in HWDB”, “Error retrieving DataPort information in HWDB” or “Error searching information in HWDB”, TC had problems opening, reading or obtaining information from the hardware database.
5. “Failed to SegAlloc memory”, “Unable to create new Pool”, “Unable to Add buffer Pools” or “Failed to Make Buffer heap”, TC could not allocate sufficient memory buffers during start-up.
6. “Invalid link type when registering link with ULMA, disabling link”, TC encountered an invalid link type when registering the link name with the universal link message analyzer (ULMA).
7. “TC task not registered with ULMA”, TC had problems registering the ACCESS/AdminPlus/MSLink link with the universal link message analyzer (ULMA).

Impact: 1-6.The TC task will not be loaded. ACCESS/MM Reporter/MM AutoAdmin applications on the UNIX/PC processor may experience timeout errors. SEER 5201 will coincide with these timeouts.

7. Data transmitted across the link cannot be viewed using ULMA.

5203 Minor Error Cases 1-2Action 3
Cases 3-4Action 2

Cause: The TC could not initialize the ACCESS/AdminPlus/MSLink port for the ACCESS/MM Reporter/MM AutoAdmin application.

1. “ACCESS cable on wrong serial port”, the ACCESS serial cable is plugged into wrong serial port on Meridian Mail.
2. “Link limit on node reached or link plugged in wrong port”, the node has reached the maximum number of ACCESS/AdminPlus/MSLink links, or the ACCESS serial cable is plugged into wrong serial port on Meridian Mail.
3. “Failure initiating task on port”, a TC task could not be started for the ACCESS/ AdminPlus/MSLink port.
4. “Could not find valid ACC/ADM/MSL dataport in HWDB”, TC did not find an ACCESS/AdminPlus/MSLink link in the hardware database.

Impact: 1-4. The link will not start.

5204 Minor Error Cases 1-6Action 2

Cause: TC encountered an error while reading parameters from the startlist at start-up time.

1. “ACCESS parameter not set. Assuming max Links”, the number of ACCESS links was not found in the startlist.
2. “ACCESS parameter out of range. Assuming max Links”, the number of ACCESS links in the startlist was invalid.
3. “AdminPlus parameter not set correctly. Value”, the number of AdminPlus links in the startlist was invalid.
4. “Incorrect number of MSL links. Got value”, the number of MSLink links in the startlist was invalid.
5. “Incorrect number of ACC, ADM and/or MSL links”, the total number of ACCESS, AdminPlus and MSLink links in the startlist was invalid.
6. “Channel parameter incorrect, Assuming max chans” or “Number of channel parameter assumed”, the number of channels in the startlist was invalid.

Impact: 1-2,5.The maximum number of ACCESS/AdminPlus/MSLink links per node (i.e., 4 links) will be used during start-up.

3-4.The number of AdminPlus/MSLink links will be set to zero during start-up.

6. The default value of 48 and 96 channels will be used for non-MMP40 and MMP40 systems respectively during start-up.

5251 Error Info Action 1

Cause: TcRouter cannot allocate memory for the buffer pools.

Impact: All features using ACCESS communication won’t work until the problem is solved.

5252 Error Info Action 1

Cause: TcRouter cannot find tkm's allocated segment for the tk table.

Impact: All features using ACCESS communication won't work until the problem is solved.

5253 Error Info Action 1

Cause: TcTasks fail to register with TcRouter. TcRouter will be restarted.

Impact: All features using ACCESS communication won't work until the problem is solved.

5254 Debug Info Action 1

Cause: TcRouter failed to send packet to the specified TC on the specified node.

Impact: The packet will be lost.

5255 Debug Info Action 1

Cause: TcRouter cannot locate the specified server.

Impact: Eventually, one packet will be lost.

5256 Debug Info Action 1

Cause: TcRouter cannot send packet to the specified server.

Impact: Eventually, one packet will be lost.

5257 Debug Info Action 1

Cause: TcRouter received a packet with an invalid MMAIL destination.

Impact: The packet will be discarded.

5258 Debug Info Action 1

Cause: TcRouter received a corrupted packet from the link.

Impact: The packet will be discarded.

5259 Debug Info Action 1

Cause: TcRouter received a corrupted packet from the servers.

Impact: The packet will be discarded.

5260 Debug Info Action 1

Cause: TcRouter failed to communicate with the specified server.

Impact: Eventually, one packet will be lost.

5261 Debug Info Action 1

Cause: TcRouter received a MM13 packet with an invalid version.

Impact: Eventually, one packet will be lost.

Actions

Action 1 If the error persists, contact your Nortel Networks support organization.

Action 2 If the error persists, contact your Nortel Networks support organization.

Action 3 Refer to the Hardware Administration chapter in the *System Administration Guide* (NTP 555-7001-215) to check the dataport configuration. Use port labeled 'MMlink' for ACCESS/MM Reporter/AutoAdmin/AdminPlus/MS Link.

Action 4 If the error persists, contact your Nortel Networks support organization.

Action 5 If the error persists, contact your Nortel Networks support organization.

Class 53

Voice Processor Diagnostics (VPD)

Introduction

The Voice Processor Diagnostics (VPD) program conducts sanity and integrity tests on voice processor cards.

If an error occurs while testing a card, the diagnostics on the card are terminated. If the test was run from the MMI, the DSP will be set to the Faulty state in the Hardware Database.

A class 53 SEER contains the location code for the card being tested. Note that DSPs are numbered starting from zero. Where a card replacement is indicated, refer to the relevant *Installation and Maintenance Guide* (NTP 555-70x1-250).

Reports

5300 Info System No Action

Cause: General information worthy of being noted, such as voice processor diagnostics started, restarting or destroying tasks, and buffer allocation problems.

Impact: None

5301 Info Error Action 1

Cause: VPD program start request failed.

Impact: Diagnostics are not run on that node.

5302 Info Error Action 2

Cause: VPD program failed its initialization process.

Impact: Diagnostics are not run on that node.

5303 Info Error Action 3

Cause: DSP under test failed diagnostics

Impact: DSP will be set to “Faulty” in the Hardware Database.

5304 Info Error Action 4

Cause: VPD program failed to start a DSP diagnostic task or received bad task result.

Impact: Diagnostics on that DSP are terminated.

5305 Info Error Action 5

Cause: VPD program failed to talk to VOM_PP on that node, or VOM_PP rejected diagnostics.

Impact: Diagnostics on that DSP are terminated.

5306 Info Error Action 3

Cause: The voice bus loopback test failed for the DSP under test.

Impact: Diagnostics on that DSP are terminated.

5307 Info Error No Action

Cause: The DSP marching memory test took longer than expected to complete.

Impact: None.

5308 Info Error Action 3

Cause: The linear-to-PCM loopback test failed for the DSP under test.

Impact: Diagnostics on that DSP are terminated.

5309 Info Error Action 3

Cause: DSP under test had host interrupt pending even after attempting to clear it.

Impact: Diagnostics on that DSP are terminated.

5310 Info Error Action 3

Cause: VOM_PP failed to raise interrupt event for the DSP under test.

Impact: Diagnostics on that DSP are terminated.

5311 Info Error Action 6

Cause: Card type found by DSP test was different than the card type passed to the diagnostic.

Impact: The DSP self-test is not run.

5312 Info Error Action 7

Cause: The line test for the GSP card detected a line problem.

Impact: The DSP on which the test failed is marked faulty.

Actions

Action 1 Contact your Nortel Networks support organization.

Action 2 Locate the node and card of the failing diagnostic. Ensure that the card exists and is properly installed in the correct slot. Correct the situation or replace the card. If the problem persists, contact your Nortel Networks support organization.

Action 3 Replace the card and run Out-of-Service Diagnostics from MMI. After diagnostics have passed, enable the card, and ensure that all channels are enabled. If other cards in the node also fail, ensure that the node is operating properly.

Action 4 Contact your Nortel Networks support organization.

Action 5 Locate the node number of the failing diagnostic program. Check the Startlist file and make sure the VOM_PP program is configured on that node. Run Out-of-Service diagnostics from MMI. If problem persists, contact your Nortel Networks support organization.

Action 6 Check that the correct card type has been configured.

Action 7 This error could indicate a line problem on the switch or with the wiring between the switch and Meridian Mail. The VP card may also be faulty. Contact your Nortel Networks support organization.

Utility, RSM, and HABC Card Diagnostics (RBD)

Introduction

The RB Diagnostics program is used for testing the Utility, the RSM and the HABC cards. StartUp diagnostics are executed automatically at system bootup. Utility card diagnostics coverage includes

- Polling RAM test
- Poll enable
- JAM registers
- Max Poll Latch
- Serial Port LoopBack
- Modem Local LoopBack and Self Test

RSM card diagnostics coverage includes

- Memory Block
- Real Time Clock
- Real Time Clock RAM
- Serial Port LoopBack
- WatchDog Timer
- Alarm Registers

HABC card diagnostics coverage includes

- 2Mbytes Memory
- Polling RAM
- TAP Register
- 68901 Register
- TAP RAM

At BootUp, if the diagnostics fail, the card is marked faulty. If only a port failed its test, then the Data/Modem port is faulty and the card state is not changed.

Reports

5400 Info Admin No Action

Cause: General information from RBD (RSM and Bus Diagnostics): information such as diagnostics started, complete, setup etc.

Impact: None

5401 Major Admin No Action

Cause: JAM register test failed. Information provided includes ‘JAM x y’ where x is the register written to and y is the register read from. Also provided is the actual and expected data.

Impact: Node Reset/Polling will not function properly.

5402 Major Error Action 1

Cause: Could not map card’s memory.

Impact: Diagnostics is not executed.

5403 Info Admin Action 2

Cause: Real Time clock is setup for Binary format, however, data in register is not of Binary format.

Impact: Real Time clock time may not be dependable. Card is marked faulty in hardware database.

5404 Info Admin Action 2

Cause: Data in Real Time clock register is not in the expected range.

Impact: Real Time clock time may not be dependable. Card is marked faulty in hardware database.

5405 Info Admin Action 2

Cause: The Real Time clock accuracy is checked by saving the time, waiting for x seconds, and then checking the time again. This SEER indicates that the time is not within +1 or -1 seconds of the expected value.

Impact: Real Time Clock time may not be dependable. Card is marked faulty in hardware database.

5406 Info Admin Action 2

Cause: Read/Write test failed on Real Time Clock register.

Impact: Real Time Clock time may not be dependable. Card is marked faulty in hardware database.

5407 Major Error Action 3

Cause: Attempt to register RBD_OVL locally failed.

Impact: Unable to run utility card RSMnBus diagnostics.

5408 Major Error Action 4

Cause: Attempt to startup RBD_OVL failed.

Impact: Unable to run utility card RSMnBus diagnostics.

5409 Major Error Action 3

Cause: Unable to locate RBD_OVL/RSM_Hdlr.

Impact: Unable to run utility/RSM diagnostics.

5410 Major Error Action 4

Cause: Unable to locate the card's polling memory.

Impact: Diagnostics failed and the card is marked faulty. Utility or HABC card is not fully functional.

5411 Info Admin Action 2

Cause: Unable to locate the Real Time clock on the RSM card.

Impact: Real Time clock is not tested. No clock functionality from RSM card.

5412 Info Admin Action 4

Cause: Quick memory block test (1st byte of each block) failed.

Impact: Depending on how serious this problem is, the card's functionality may be critically affected.

5413 Info Admin Action 4

Cause: Disable polling test failed.

Impact: Node Polling will not function properly. The Utility or HABC card is marked faulty.

5414 Info Admin Action 4

Cause: Enable polling test failed.

Impact: Node Polling will not function properly. The Utility or HABC card is marked faulty.

5415 Info Admin Action 4

Cause: Incremental memory test on Polling RAM failed.

Impact: Node Polling will not function properly. The Utility or HABC card is marked faulty.

5416 Info Admin Action 4

Cause: Walk memory test failed on the Polling RAM.

Impact: Node Polling will not function properly. The Utility or HABC card is marked faulty.

5417 Info Admin Action 4

Cause: Read/write memory test failed on the Polling RAM.

Impact: Node Polling will not function properly. The Utility or HABC card is marked faulty.

5418 Info Admin Action 2

Cause: Incremental memory test failed on Real Time Clock RAM

Impact: Real Time Clock is not dependable. Impact is minimal if the RTC is not being used. RSM card is marked faulty.

5419 Info Admin Action 2

Cause: Walking memory test failed on Real Time Clock RAM.

Impact: Real Time Clock is not dependable. Impact is minimal if the RTC is not being used. RSM card is marked faulty.

5420 Info Admin Action 2

Cause: Read/write memory test failed on Real Time Clock RAM.

Impact: Real Time Clock is not dependable. Impact is minimal if the Real Time Clock is not being used. RSM card marked faulty.

5421 Info Admin Action 5

Cause: Error opening file to test the specified port.

Impact: This port is marked faulty.

5422 Info Admin Action 2

Cause: Serial Port Local LoopBack test failed.

Impact: This port is marked faulty and should not be used.

5423 Info Admin Action 6

Cause: Invalid argument string passed into program.

Impact: Diagnostics will not be executed.

5424 Info Admin Action 4

Cause: Max Poll Latch failed Read/Write memory test.

Impact: Utility card is marked faulty. Polling may not function properly.

5425 Info Admin Action 4

Cause: Alarm register failed.

Impact: Utility or RSM card is marked faulty. Alarm indication may not be dependable.

5426 Info Admin Action 4

Cause: Modem diagnostics failed.

Impact: Modem port is marked faulty.

5427 Info Admin Action 5

Cause: Error opening file for port testing.

Impact: Port will be marked faulty.

5428 Minor Error Action 7

Cause: Error acquiring buffer for diagnostics.

Impact: Diagnostics may not be completely executed.

5429 Minor Error Action 3

Cause: Error communicating with RBD_OVL or RSM_Hdlr.

Impact: Depending on request to RBD_OVL or RSM_Hdlr, the hardware may be left in an improper state, or Diagnostics may not be properly executed.

SEER Info Admin No Action

SEER> INFO: <RBD> Node 1 SCC Test Failed, Port/Str 1 1)

Cause: Both ACCESS and the diagnostics utility are competing for access to the serial communication controller chip, which cause diagnostics to report the failure.

Impact: This test should not be run on the ACCESS link serial port.

Actions

Action 1 Retry running the diagnostics. If problem still exists, contact your Nortel Networks support organization.

Action 2 Replace the card and ignore failures for areas of the card that are not being used, (for example, if the clock is not required).

Action 3 This problem only occurs at system bootup. Restart the bootup; if the problem still occurs contact your Nortel Networks support organization.

Action 4 Depending on the diagnostic, replace card and reboot the system.

Action 5 Check that the hardware database for the port is correct. If it is and problem continues, contact your Nortel Networks support organization.

Action 6 If problem persists, contact your Nortel Networks support organization.

Action 7 If problem persists contact your Nortel Networks support organization.

Voice Service Administration (VSA) Conversion Utilities

Introduction

Class 55 VSA Conversion Utilities SEERs report the events and errors that may occur during the conversion of various Voices Services such as VSDN and voice services profile.

Reports

5501 Minor System No Action

Cause: Current time not available

Impact: Holidays will be updated with time of January 1, 1980 00:00:01.

5502 Info System No Action

Cause: Conversion completed.

Impact: None

5503 Minor Error No Action

Cause: Unable to close the cabinet.

Impact: None

5504 Minor Error No Action

Cause: Unable to close the VSDN file.

Impact: None

5505 Minor Error No Action

Cause: Unable to unlink FCB.

Impact: None

5506 Minor Error No Action

Cause: Unable to close DR.

Impact: None

5507 Major Error Action 1

Cause: Unable to get the FID for cabinet.

Impact: Unable to continue the conversion process.

5508 Major Error Action 1

Cause: Unable to open cabinet.

Impact: Unable to continue the conversion process.

5509 Major Error Action 1

Cause: Unable to find the VSDN file in cust cabinet.

Impact: Unable to continue the conversion process

5510 Major Error Action 1

Cause: Unable to obtain the FIR

Impact: Unable to continue the conversion process

5511 Major Error Action 1

Cause: Unable to open the VSDN file.

Impact: Unable to continue the conversion process.

5512 Major Error Action 1

Cause: DD_FindRec operation failed.

Impact: Unable to continue the conversion process.

5513 Minor Error Action 1

Cause: No DN record exists in the VSDN file.

Impact: None

5514 Minor Error Action 1

Cause: Unable to delete the VSDN file.

Impact: None

5515 Minor Error Action 1

Cause: Unable to move the VSDN file to the garbage cabinet.

Impact: None

5516 Major Error Action 1

Cause: DD_GetRecDesc operation failed

Impact: Unable to continue the conversion process

5517 Major Error Action 1

Cause: Unable to read DN from the VSDN file.

Impact: Unable to continue the conversion process

5518 Major Error Action 1

Cause: Unable to read the ServId Record for DN.

Impact: Unable to continue the conversion process

5519 Major Error Action 1

Cause: The number of DN and ServId entries are not equal.

Impact: Unable to continue the conversion process.

5520 Major Error Action 1

Cause: Unable to open the DR

Impact: Unable to continue the conversion process

5521 Major Error Action 1

Cause: DR_FindEntry operation failed.

Impact: Unable to continue the conversion process.

5522 Major Error Action 1

Cause: Unable to add DN to the DR Entry.

Impact: That particular DN cannot be converted to the DR Entry.

5523 Major Error Action 1

Cause: Unable to link FCB.

Impact: Unable to continue the conversion process

5524 Major Error Action 1

Cause: Number of DNs fail to convert.

Impact: Certain DN failed to convert.

5525 Major Error Action 1

Cause: Conversion is partially done

Impact: Certain DN fails to convert

5526 Major Error Action 1

Cause: Conversion failed

Impact: VSDN conversion failed

5527 Info System No Action

Cause: The VSDN file is moved to the garbage cabinet

Impact: None

5528 Info System No Action

Cause: Number of DN or ServId to be converted.

Impact: None

5529 Info System No Action

Cause: The VSDN file is successfully deleted.

Impact: None

5530 Info System No Action

Cause: Dn already exists in the DR Entry.

Impact: No VSDN Conversion is required on this particular DN.

5531 Info System No Action

Cause: Converting DN into the DR VSDN Entry

Impact: None

5532 Info System No Action

Cause: DN successfully converted DR VSDN entry

Impact: None

5533 Major Error Action 1

Cause: Information contained in the VSDN is incorrect. The number of digits in the VSDN entry is either less than the local DN length or greater than system DN length.

Impact: The VSDN cannot be converted.

5534 Major Error Action 1

Cause: The sum of the length of the NPA supplied and the length of the VSDN itself is less than the system DN length so there is not enough information to fill the Expansion Digits field.

Impact: Conversion cannot be performed for this VSDN.

5535 Major Error Action 1

Cause: The mailbox ID is too long. Either the mailbox ID itself or the mailbox ID together with the NPA is longer than the system DN length.

Impact: Unable to expand the mailbox ID

5536 Major Error Action 1

Cause: System DN length has not been defined.

Impact: Unable to continue the conversion process.

5537 Major Error Action 1

Cause: Local DN lengths have not been defined for the customer OR they are greater than System DN length.

Impact: Expansion Digits cannot be filled for the customer. Only a partial conversion can be done: expansion of Mailbox ID's.

5538 Minor Error Action 1

Cause: Unable to close a profile. This occurred when trying to close a customer or system profile and may indicate a possibly corrupted profile.

Impact: Heap loss may occur. Otherwise, conversion may continue as usual.

5539 Major Error Action 1

Cause: dr_NextEntry operation failed. Possible System Error.

Impact: Unable to continue the conversion process.

5540 Major Error Action 1

Cause: Unable to add a Cabinet.

Impact: Unable to continue the conversion process.

5541 Minor Error No Action

Cause: The service ID is Invalid

Impact: The Voice Service File is not converted and will be moved to the garbage cabinet.

5542 Minor Error Action 1

Cause: DD_Create operation failed.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5543 Minor Error No Action

Cause: Unable to add the service ID File

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5544 Major Error Action 1

Cause: Unable to open the organization directory.

Impact: Unable to continue the conversion process.

5545 Minor Error No Action

Cause: DD_Read operation failed.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5546 Minor Error No Action

Cause: DD_QuickInfo operation failed

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5547 Minor Error No Action

Cause: DD_CrtRec operation failed.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5548 Minor Error No Action

Cause: DD_Add operation failed

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5549 Minor Error No Action

Cause: DD_Write operation failed.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5550 Minor Error No Action

Cause: DD_CopyRec operation failed.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5551 Minor Error No Action

Cause: cm_UpdtFile operation failed.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5552 Major Error Action 1

Cause: Unable to read the system profile.

Impact: Unable to continue the conversion process.

5553 Major Error Action 1

Cause: Unable to read the customer profile.

Impact: Unable to continue conversion process.

5554 Major Error Action 1

Cause: Unable to read the Admin Language Record

Impact: Unable to continue conversion process.

5555 Major Error Action 1

Cause: Unable to read the Admin Login Record

Impact: Unable to continue conversion process.

5556 Major Error Action 1

Cause: Unable to move the new Voice Service cabinet.

Impact: Unable to continue conversion process.

5557 Minor Error Action 1

Cause: Unable to read the Voice Services profile.

Impact: Unable to continue conversion process.

5558 Minor Error Action 1

Cause: The FIR for the Voice Service file is invalid.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5559 Major Error Action 1

Cause: Unable to obtain the FIR for the Cabinet.

Impact: Unable to continue the conversion process.

5560 Major Error Action 1

Cause: Unable to obtain the FID for the Cabinet.

Impact: Unable to continue the conversion process.

5561 Major Error Action 1

Cause: Unable to remove the old Voice Service cabinet.

Impact: Unable to continue the conversion process.

5562 Minor Error No Action

Cause: Unable to open the Voice Service file.

Impact: The Voice Service File is not converted and will be moved to the garbage cabinet.

5563 Minor Error No Action

Cause: Unable to find the specified record in the file.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5564 Minor Error No Action

Cause: Unable to obtain FIR for the Voice Service File.

Impact: The Voice Service file is not converted and will be moved to garbage cabinet.

5565 Minor Error No Action

Cause: Unable to obtain FID for the Voice Service File.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5566 Minor Error No Action

Cause: Unable to find the DR entry.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5567 Minor Error Action 1

Cause: Unable to add the Voice Service entry to the DR.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

5568 Major Error Action 1

Cause: Unable to open the specified cabinet.

Impact: Unable to continue the conversion process.

5570 Minor Error Action 1

Cause: Unable to change the VSDN table entries.

Impact: Unable to automatically change the DNs.

5571 Minor Error Action 1

Cause: Unable to fix the Voice Service definitions.

Impact: Unable to automatically change the Service definitions.

Actions

Action 1
1. Record the return code if applicable.
2. Contact your Nortel Networks support organization.

Centralized Call Answering (CCA)

Introduction

Centralized Call Answering (CCA) receives the user's voice messaging commands and executes them by calling the Voice Handler and Voice Processor.

Most CCA errors affect only one call or user's session (unless the error is a symptom of a hardware problem). For most serious problems diagnosed by CCA, the call is routed to the system attendant DN, and CCA releases memory and files for the next call.

A class 56 SEER contains:

- lower level return code
- the user's mailbox number or DN (if relevant). If a mailbox included in a SEER is the user's mailbox (that is, the login user or the recipient in a call answering session), then the mailbox number is output in the administrator's (the prime) context. Thus, since the administrator is the one looking at the SEERs, the SEER will be more meaningful to him or her.

Class 56 SEERs are often preceded by a related SEER which has the same mailbox number or the same return code.

Reports

5601	Minor Error	Case 1-6	Action 1
		Case 7	Action 2

Cause: CCA encountered a problem while playing. The return code isolates the cause.

1. If the text says "Create Acknowledgement", CCA failed to create and send an acknowledgement.
2. If the text says "Playing NDN/ACK prompt", CCA failed to open or play messages correctly.
3. If the text says "Playing NDN/ACK attachment" or "Playing attachment" or "Playing attachment prompt", CCA failed to open or play attachments correctly.
4. If the text says "Playing from beginning" or "Playing start prompt", CCA failed to open or play messages correctly.
5. If the text says "Play Prompt called with prompt files released", CCA tried to play a prompt before the prompt files were initialized or after they were released.

6. If the text says “Trying to skip forward in msg”, CCA encountered an error when the user skipped forward while playing a message. There are two possible causes: i) an attachment on the message could not be opened, or ii) the lower-level VH software could not perform the PlaySkip command.
7. If the text says “PlayPrompt problems”, CCA was informed of an error by the lower level VX software while trying to play a system prompt (not user voice). A possible cause of this problem is corrupt data in a message header or user’s profile, or an invalid time-stamp. A related class 21 SEER is printed just before this, containing the prompt ID that it was attempting to play.

Impact:

Case 1.	The recipient of the original message will not hear any error prompts.
Cases 2, 3.	The user hears the error prompt “Your command cannot be completed this time. Please try again later or contact your administrator.”
Case 4.	“This message cannot be played. To delete it, press 3.”
Case 5.	No prompt is played.
Case 6.	The user hears the prompt “Your command cannot be completed at this time...”, and the skip forward command will fail. The skip forward command will not send a message delivery acknowledgement in this error condition.
Case 7.	The prompt will not be played, or will be partially played, or will be played as silence. In some cases, the software depends on successful playback of a prompt. In these cases the user’s session will appear to be inactive (that is, the session may appear “hung”).

5604 Minor Error

Case 1 Action 1
Case 2 Action 3

Causes:
1. CCA encountered a problem while trying to start recording at the current position of a previously created message. The return code isolates the cause.
2. If the text says “Failed to commit message,” then CCA had a problem doing incremental saves on a large message.

Impact:
1. The user will hear the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.”
2. Recording will be stopped and the user will hear an error prompt. If it is in a call answering session the call will be disconnected. The message may or may not exist as recorded or it may be corrupt. In addition, the user volume on the disk may reach a safety limit, which will prevent call answering from working. If this happens, the problem will clear automatically during the overnight audits.

5613 Minor Error

Case 1, 7-10, 12Action 1
Case 2 Action 8
Cases 3-4, 17 Action 9
Case 5 Action 10

Case 6Action 11
Case 11 Action 12
Case 13 Action 13
Case 14Action 4
Case 15Action 5
Case 16 Action 40
Case 18-20, 22-29, 30Action 6
Case 21 Action 7

Causes: CCA encountered an error while a user was logging in. The error occurred during the initial login or after the user issued the login command. The return code isolates the cause. If the text says:

1. "New Var of UserInfo", CCA failed to acquire memory space for a new variable called "UserInfo".
2. "Opening cabinet", CCA failed to open the user's cabinet.
3. "Finding Profile", CCA failed to find the user's personal profile.
4. "Opening Profile", CCA failed to open the user's personal profile.
5. "Updating Org Directory", CCA failed to update the organizational directory if a user's password had expired.
6. "Failed to associate client", CCA failed to register the user as currently using CCA
7. "vhCloseV", CCA encountered an error while updating or closing the user's cabinet after the user tried to use the login command.
8. "cmFlushM", CCA encountered an error while updating or closing the user's cabinet.
9. "cmCloseM", CCA encountered an error while updating or closing the user's cabinet.
10. "cmCloseC", CCA encountered an error while updating or closing the user's cabinet.
11. "ClosePrf", CCA failed to close the personal profile while logging in from CCA.
12. "Opening first message", CCA failed in the procedure "cm_MenuToFIR" which finds and opens the first message.
13. "Check/Playing summary", CCA encountered an error while inspecting the user who was logging in.
14. "Password Violation" or "Password Violation by <DN>" CCA discovered someone consecutively entering more than the maximum allowed number of incorrect passwords. The affected mailbox and the calling DN, if known, are given and the mailbox is disabled. If a non-zero lockout reset time has been specified for the customer group (Voice Security screen), then the mailbox will automatically be reenabled after that time.
15. "Cannot read MWI for guest", CCA had difficulty reading message counters.

16. “Problem in logincheck/Playing Summary”, CCA encountered a problem in completing a login.
17. “Cannot read component phone number record” or “Cannot read component time period”, then an error was encountered while checking remote notification being turned off externally for a mailbox.
18. “Failed to set volume level prior to login”, CCA had problems setting the volume level to the level stored in the calling DN’s personal profile.
19. “Failed to set volume level after login”, CCA had problems setting the volume levels to the subscribers saved volume level.
20. “Cannot read outcalling record”, CCA could not read the outcalling record for the subscriber.
21. “RN DN cannot be reached”, The number to be called for remote notification cannot be reached.
22. “...CloseSNFC13”, CCA had problems closing the spoken name file cabinet when the subscriber pressed “*” from the main menu in order to login to another mailbox.
23. “...CloseTempProf”, CCA had problems closing the PDL temporary file when the subscriber pressed “*” from the main menu to re-login
24. “...Intro Cntrs”, CCA had problems getting the cabinet counters for the mailbox.
25. “...Update MWI”, CCA had problems setting the subscribers MWI at logoff (preparing for login to another mailbox).
26. “...ChgMode CRej”. The user is logging in from call answering and had calls rejected due to a full mailbox. CCA attempted to change the mode that the profile control block is in to quick read/write.
27. “...cmchgmode”. Could not change the mode of the user’s cabinet (variable) to quick read/write.
28. “...rnNlogout”. Could not update the outcalling service.
29. “Failed to get default record”. The subscriber has RN or DNU (delivery to non-user) capabilities. However, the outcalling record was not found so CCA attempted to created a general outcalling record but failed to do so.
30. “Failure checking CLID list”, CCA had problems checking if the number the user is logging from matches one of the requested CLIDs to be monitored.

Impact:

Cases 1-6.	The user will not be allowed to log in.
Cases 7-10.	The user will be allowed to log in. New messages or changes to existing messages may not be reflected the next time the user logs into the mailbox.
Cases 11-13.	The user will not be allowed to log in.
Case 14.	The user will not be allowed to log in until the administrator reenables the user’s mailbox.
Case 15.	The user will be able to log in, but the MWI may not be correct.
Case 16.	The user will not be allowed to log in.

Case 17.	The user will not be notified that his remote notification had been turned off externally (however, probably indicates that there will be further problems with remote notification).
Case 18.	Volume level of prompts will remain at normal level.
Case 19.	Volume level will remain the same.
Case 20.	The Remote Notification Summary is not played during login.
Case 21.	The user cannot be remotely notified with the present RN DN.
Cases 22-23.	CCA will still attempt to log off the subscriber and set up for re-login.
Cases 24-25.	The MWI may not be set properly.
Case 26.	Profile cannot be written to.
Cases 27-28.	Possibly the OCS (outcalling service) will not get updated and remote notification will not be activated.
Case 29.	The login attempt will fail and the user will be prompted for the mailbox/ password again.
Case 30.	Logins from CLIDs specified for monitoring will not be detected.

5614 Minor Error Action 14

Cause: CCA encountered a greeting problem. The return code or text isolates the cause. If the text says:

1. “Opening greeting”, CCA encountered an error while gaining access to a system, custom or personal greeting.
2. “Update greeting”, CCA encountered an error while accessing, reading, or writing a personal greeting.
3. “Delete greeting”, CCA failed to delete personal greeting.
4. “Clear grt in prof”, Voice messaging detected an inconsistency in the user’s greeting in his/her personal profile. The attempt to rectify the inconsistency failed.
5. “Closing greeting”, “Closing custom greeting”, or “Second attempt to close custom greeting”, an attempt to close a greeting failed.

Impact:	Cases 1, 2.	The greeting will not be altered.
	Case 3.	The user will hear the error prompt “Your command cannot be completed at this time. Please try again later.”
	Case 4.	Subsequent attempts to reference the greeting will fail. Call answering sessions will use the standard greeting.
	Case 5.	A heap loss may be detected when the call completes, resulting in a channel reload.

5621 Minor Error Action 15

Cause: CCA encountered an error while gaining access to, reading, or writing the password information. The return code isolates the cause.

Impact: The user's password will not be updated. The user will hear the error prompt "Your command cannot be completed at this time. Please try again later or contact your administrator."

5622 Minor Error

Case 1 Action 16
Case 2-5 Action 10
Case 6 Action 17

Cause: CCA encountered an error involving the spoken name. If the text says:

1. "Opening a spoken name", CCA could not open the file containing spoken names.
2. "Deleting Voice" or "Closing Voice", or "Closing spoken name", the requested action of deleting information or closing a file failed.
3. "opening detfid" or "closing detfid" or "Finding submailbox spoken name", an error occurred trying to determine if a submailbox has a spoken name.
4. "SubMbx Maint: Opening Main Mbx Spoken Name", CCA failed to open spoken name for the main mailbox.
5. "Open Detfid in SMDis" or "remove sn in SMDis" or "Close detfid in SMDis", CCA failed to remove the spoken name for a partially set submailbox that was canceled.
6. "Could not open sn" could not open spoken name file during submailbox creation or spoken name change.

Impact:

Case 1. Depends on context.

Case 2. The spoken name may not be deleted. There may be a heap loss resulting in a channel reload once the call has completed.

Case 3. The application will treat the submailbox user as if he or she had no spoken name set up.

Case 4. Will default to no spoken name available.

Case 5. No impact on the caller.

Case 6. The action will not be allowed. The user will hear, "Your command cannot be completed at this time. Please try again later."

5623 Minor Error Action 18

Cause: CCA encountered a problem while attempting to use a Personal Distribution List (PDL). If the text says:

1. "Could not delete Pers Dist List" an attempt to delete a PDL failed.
2. "Could not record Pers Dist List" an attempt to create a new PDL or change an existing PDL failed.
3. "Read PDL entry", or "Reading PDL record" an attempt to an address in the PDL from the disk failed.
4. "Addr Conv PDL Entry" bad data was found in a PDL entry read off the disk.
5. "Validation of PDL Entry" bad data was found in a PDL entry off the disk.
6. "Could not close Pers Dist List" the PDL previously opened could not be closed.

7. "NEmp PDL addressing" or, "PDL NU addressing", or "PDL AMIS Address" an error occurred during the validation of an address a user added to a PDL.
8. "Emp PDL addressing" an error occurred during the attempt to cancel the last address a user added to the PDL.
9. "Reading PDL/Map" an attempt to determine which PDLs are used and which are not failed.

Impact:
- Case 1. The PDL may not have been deleted.
- Case 2. The user will hear "Your command cannot be completed at this time. Please try again later."
- Cases 3-5. The PDL could not be dealt with. The command will be cancelled and the user will be disconnected.
- Case 6. Any changes made to the PDL may not be saved.
- Cases 7-9. The PDL change will be canceled.

5625 Minor Error Action 19

Cause: CCA failed to create a new message. The return code isolates the cause.

Impact: The user may encounter more problems performing further operations on the message. A call answering or express message may not have been created in the user's mailbox.

5626 Minor Error Action 20

Cause:
1. CCA encountered an error while adding a message to the user's cabinet, as indicated by the SEER text.
2. If the text says "Adding new Arrival" or "New Arrival", CCA encountered an error while adding a message to the user's message list.
3. If the text says "AddMsg failed in rnMsgArrival" then there was a failure telling the OCS that a message had been deposited for someone by CCA.

The return code isolates the cause.

Impact:
- Case 1-2. The messages will be lost.
- Case 3. The recipient will not be "remote-notified" of the message.

5627 Minor Error

Case 1 Action 21
Case 2 Action 22
Case 3 Action 23
Case 4, 6 Action 24
Case 5 Action 25

Cause: CCA encountered an error while gaining access to, opening, or reading the message. The return code isolates the cause.

Impact: The user will hear one of three error prompts:
1. "Your command cannot be completed at this time. Please try again later or contact your administrator"

2. "Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance".
3. "The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance."
4. If the text says "Inconsistent Times in Msg" then there is no impact whatsoever. This SEER can be ignored in all cases; it should not have been printed.
5. If the text says 'Late Msg' or 'More Info', then a user has received a message that was sent more than 10 minutes ago.
6. If the text says "Deleted IP Msg in Mbx", then an acknowledgement or non-delivery notification was found in a mailbox that supports call answering only. The message is deleted with no impact to the user.

5628 Minor Error Action 26

Cause: CCA encountered an error while entering or committing the cabinet, or while updating the menu. The return code isolates the cause.

Impact: Changes, if any, may not take effect.

5629 Minor Error Case 1 Action 26
Case 2 Action 27

Cause:
1. CCA encountered an error while updating the menu.
2. CCA encountered an error while gaining access to, or reading the personal profile, or while trying to turn off the message waiting indicator (MWI).

The return code isolates the cause.

Impact:
Case 1. Any changes to the message may not be reflected the next time the user logs in.
Case 2. The MWI may be set incorrectly.

5630 Minor Error Action 26

Cause: CCA could not close a message. The return code isolates the cause.

Impact: The user may encounter more problems performing further operations on that message.

5631 Minor Error Action 26

Cause: CCA was unable to update a user's cabinet to reflect the deletion of a message.
1. If the text says "Opening Msg in DelAll", the message could not be opened for deletion/restoration during a request to delete messages.
2. If the text says "Updating Msg in DelAll", the message could not be marked as deleted/restored during a request to delete messages.

Impact: The message may not be deleted/restored.

5632	Minor Critical	Case 1, 5-7, 18-24	Action 6
		Case 2	Action 28
		Case 3	Action 29
		Case 4	Action 30
		Case 8	Action 31
		Case 9	Action 32
		Case 10	Action 33
		Case 11, 12	Action 34
		Case 13	Action 35
		Case 14	Action 36
		Case 15	Action 37
		Case 16	Action 38
		Case 17	Action 39
		Case 25	Action 40
		Case 26	Action 41

Cause: CCA was unable to acquire sufficient initial resources to begin a session. The text message indicates the cause. If the text says:

1. “Switching services: CA—CCA”, the user tried to log in from a call answering or express messaging session and CCA encountered a problem trying to switch to a voice messaging service.
2. “Cannot switch to prompt files for language”, CCA had problems resetting the language of the system prompt files.
3. “Problems in cca — Logoff called”, CCA had already detected a problem and failed to obtain information from the voice services shell on details of the Calling and Called DNs.
4. “Getting call info. on service transfer”, CCA had a problem obtaining information from the voice service shell after the VSS had invoked it.
5. “Getting cca control block”, CCA had a problem obtaining heap to store its global data record.
6. “VM: VM svc — fails to bind routines”, a bad service ID was used in the procedure that associates the VM routines with the VSS.
7. “CCA: CA svc — fails to bind routines”, a bad service ID was used in the procedure that associates the CCA routines with the VSS.
8. “PhoneDN was calling CalledDN”, CCA encountered a serious problem and has terminated the call.
9. “User not subscribed to Call Answering forwarded to CCA, DN”, CCA encountered a problem during call-answering and has terminated the call. Either a non-user of voice messaging had his or her phone forwarded to the Meridian Mail DN (the user has a mailbox but it may not receive Call Answering messages), or there was a serious directory problem. In this particular cause, the SEER code is considered Type: Admin. and Severity: Info.

10. “Could not find parser/state table”, the incorrect parser tables were loaded by vss.pd. The table numbers are: 0—generic Meridian Mail, 1—guest voice messaging, 3—post checkout, and 4—VMUIF call answering.
11. “Error playing custom login”, the custom login greeting was not recorded or some other greeting error has occurred.
12. “Error playing custom intro greeting”, the intro custom greeting was not recorded or some other greeting error has occurred.
13. “Bad connection timestamp in StartCCA”, then CCA was unable to get the time of original connection to the service.
14. “Could not get DN for Call Sender”, CCA was unable to get the DN type and number of the calling number in StartProc (CCA initialization).
15. “Getting space alloc/used” then the space allocation and space used parameters could not be obtained from the VS for the mailbox indicated.
16. “Calling DN: x CalledDN: x Dev: x Type: x CustNum: x”, the call could not be answered or the initial prompt such as ‘Welcome to Call Answering’ could not be played. Possible problems are link outages, VPIO task dead, and voice port faulty.
17. “get subcounters for mwisummary”, could not read in the message information for the mailbox or submailbox.
18. “play prompt”. CCA could not play the following message: “Messages waiting for...”
19. “Opening DetFID for MWI summary”. CCA could not open the file for spoken names.
20. “Cannot get DR entry”. CCA failed to get the directory info for a user logging in from a voicemenu or Remote Notification.
21. “NewVar of UserInfo”. CCA could; not allocate memory to store the user information.
22. “Getting SPM info on Service Transfer”. CCA had problems get information from VSH on a redirected call (from another SPM).
23. “Play MWI Summary”. CCA had a problem playing the Spoken Name.
24. “Play rest of login after MWI summary”. CCA had problems playing the appropriate login prompt after playing the message waiting list (that is, please enter your password...”)
25. “Problem Completing login of User”. Occurs after the user has successfully logged in. CCA had trouble finishing up the login stage. Could be accompanied by the SEER: “Problem in logincheck/Playing summary”.
26. “Language record index xx out of range for System Profile”. CCA could not set or switch to a preferred language.

The return code isolates the cause.

Impact:	Case 1.	The user will hear the error prompt and will return to where the login command was entered.
	Case 2.	If the previous language was different from the new language, the system will try to switch back.
	Cases 3-8.	The user will probably not be connected with the desired service.
	Cases 9.	See Action.
	Case 3.	If the greeting is not recorded, the service continues. If some other error is occurring, the service discontinues.
	Case 4.	The greeting is not played. The service will not be available.
	Case 5.	OM reports on service usage may be incorrect and other features involving times may not work correctly (that is, timed delivery, remote notification setup). The service will not be available.
	Case 6.	User may not be able to perform Call Sender function during session.The service will not be available.
	Case 7.	Session will continue. If the user's mailbox is full, this will not be announced during login, and call answering will not be blocked even if this feature is enabled.The service will not be available.
	Case 8.	The call is disconnected and the user will hear a partial prompt or no prompt at all. The service will not be available.
	Cases 9, 18.	The message waiting summary (for submailboxes) is not played. The user is still logged in.
	Case 11.	The message waiting summary will be given without the spoken name.
	Case 12.	The CCA session will disconnect; however, the system will exit gracefully.
	Cases 13, 22.	The call will be dropped.
	Case 15.	The message waiting summary will stop playing and the user will begin to log in.
	Case 16.	The user will have to wait for the delay prompt (or press 0).
	Case 17.	May cause user to re-login or may just fail to turn RN back on.
	Case 26.	May not be able to play prompts in the user's preferred language, or at all.

5633 Minor Error Action 42

Cause: CCA encountered a problem during the logoff sequence.

Impact: Varies widely, from an improper setting of the user's MWI to a drastic loss of program resources. The user may not notice any problems until login is tried again.

5634 Minor Error Action 27

Cause: CCA encountered a error turning on the MWI while depositing a call answering message in a user's mailbox. The return code isolates the cause.

Impact: The MWI for the target user's mailbox may be set incorrectly.

5635	Minor Critical	Case 1-2	Action 6
		Case 3-4	Action 43
		Case 5	Action 44

Cause: CCA is receiving error messages or unusual data from other software components. If the text says:

1. "StopVoice", CCA requested the Voice Handler to stop the playing of voice and the Voice Handler returned an error.
2. "PlayPrompt Problems", CCA had an error or internal time-out.
3. "Unexpected Call Progress Entry", CCA had an error or internal time-out.
4. "GTI Reference ID Mismatch", CCA had an error or internal time-out.
5. "Recording Problem". A user volume is completely full.

The return code isolates the cause.

Impact: Case 1. The user may hear voice continue to play where it was expected to stop.
Case 2-4. Unpredictable.
Case 5: No more messages or voice prompts can be recorded on that volume.

5636	Minor Critical	Case 1	Action 15
		Case 2, 4, 6, 10, 12-13	Action 26
		Case 3, 11	Action 50
		Case 5	Action 46
		Case 7	Action 47
		Case 8	Action 48
		Case 9	Action 49

Cause: CCA encountered a problem during a call answering or express messaging session. The message text and return code indicate the cause. If the text says

1. "Close the greeting", CCA had problems closing the greeting before starting to record a call answering message.
2. "Creating the message", CCA was unable to create a message for the call answering session.
3. "Close voice in bad grtg", CCA had a problem playing a greeting and closing it.
4. "Error playing pers. grtg, subst std grt", CCA had a problem playing a non-system greeting or a telset busy prompt.
5. "Read Profile", CCA had a problem finding the user's profile for a Call Answering session.
6. "Error playing system grtg, subst pers/std grtg", CCA had a problem playing the system greeting.

7. “dr_FindEnt on Caller”, CCA encountered a problem finding the caller’s entry in the organization directory while trying to set up the call information.
8. “mkAddress on Caller”, CCA encountered a problem formatting the callers addressing while trying to set up the call information.
9. “Unpack BillDN”. CCA failed to bill the user for a call that the user is about to place.
10. “Opening DefFID for CA Menu”. CCA failed to open the file containing personal verifications for a user with submailbox capability.
11. “Playing 1st CA MENU item”. CCA failed to play the main mailbox’s Custom personal verification or the standard verification during a Call Answering session to a user with active submailboxes.
12, “Closing detfid after selection”. CCA failed to close the personal verification file for a user during a Call Answering session to a submailbox.
13. “Check for submbx exist”. In attempting to determine whether a particular submailbox is valid, an error occurred reading the user’s personal profile.

Impact:

Case 1.	None to the user, but a heap loss may occur after the user disconnects; the channel will reload.
Case 2.	If this is the result of a full volume server the user will hear an error prompt and will be placed in the call answering empty state.
Case 3.	See Action.
Case 4.	A personal greeting or telset busy prompt is substituted with the system-provided standard greeting.
Case 5.	The user will hear “Your message cannot be taken at this time. Please try again later”.
Case 6.	The user will hear just the personal or standard greeting instead of the system greeting and the personal or standard greeting.
Case 7-8.	See Action.
Case 9.	The user will hear “Your command cannot be completed at this time. Please try again later”.
Case 10.	The caller leaving the message will not hear the customized personal verification for the main mailbox. Instead, standard prompts will be used; that is, “To leave a message for [mbox #], press 1 or stay on the line”.
Case 11.	The user will hear nothing until the personal greeting is played for the main mailbox.
Case 12.	None to the user, but a heap loss may occur after the user disconnects, and the channel will reload.
Case 13.	None to the caller. The submailbox is assumed to exist and the message is deposited.

5637	Minor Error	Case 1	Action 51
		Case 2	Action 52
		Case 3-4	Action 53

Cause: CCA encountered a case which its software does not handle. If the text says: “Turn on timer”, CCA tried to reset its delay timer with an undefined value.

Impact: This could cause a disruption of the normal sequence of delay prompts and affect the normal disconnect time out sequences. The entry of any command by the user may correct this condition.

5638 Minor Error Action 54

Cause: A problem occurred within CCA and not at a lower level.

Impact: The user may hear a system error prompt. Normal operation may proceed upon user entry or CCA may be shut down with the caller forwarded to the attendant as in the case of a non-user forwarded to CCA.

5651 Minor Error Action 55

Cause: CCA encountered a call processing problem while trying a custom operator revert. The return code isolates the cause.

Impact: The user is not transferred to the custom operator. The user will hear the error prompt “Your connection cannot be completed at this time. Please try again later or contact your administrator.” If the user was in call answering, then the user will be returned to the place where 0 was pressed. If the user was logged in to a mailbox, then the user will be placed at the end of it. When using proprietary call answering, if the user is told the call can’t be completed, the user can still continue the mail session. If residential call answering is used the mail session ends as well as the call.

5653 Minor Error Action 56

Cause: CCA was unable to retrieve a digit that was entered by the user causing the digit to be lost. The return code isolates the cause.

Impact: The user may hear prompts or messages continuing to play when they should have been interrupted. Subsequent digits may be incorrectly interpreted as different commands.

5662 Minor Error Action 57

Cause: CCA has detected one or both of a login from one of the specified CLIDs that are being monitored and a login to one of the mailboxes being monitored during the monitoring period. If the text says:

1. “A login has been detected from CLID=<clid> to MBox=<mbox>”, CCA has detected a successful login from a CLID or mailbox that is being monitored.

2. “A login has been detected to MBox=<mbox>”, CCA has detected a successful login to a mailbox being monitored.

3. “A login has been detected from CLID=<clid>,“CCA has detected a successful login from a known caller.

4. “An attempt to login was made from CLID=<clid>”, CCA has detected a login from a CLID that is being monitored, but the login attempt was unsuccessful.

Impact: An unauthorized login has occurred. Hacker activity could be in progress.

Actions

Action 1 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Collect all relevant information and contact your Nortel Networks support.

Action 2 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Collect all relevant information (including the prompt ID from the previous Class 21 SEER) and contact your Nortel Networks support organization.

Action 3 User-recorded voice messages are auto-saved every five minutes of recording. This is failing, and your Nortel Networks support organization should be called. However, in the meantime, you may wish to temporarily reduce the maximum message length to less than five minutes. This will avoid the problem until it can be corrected.

Action 4 The administrator must reenable the mailbox.

Action 5 The user will be able to log in; however, the MWI may not be correct.

Action 6 Look up the return code and, if necessary, examine preceding or subsequent SEERs for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 7 The remote notification DN must be changed for the user.

Action 8 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 9 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 10 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 11 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 12 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 13 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 14 Determine the scenario that caused the problem. Look up the return code for more information. If the code does not help, contact your Nortel Networks support organization. Note that persistent SEERs on opening or playing Custom Greetings could be caused by failing to record a greeting after setting the greeting record to “custom”.

Action 15 Look up the return code for specific information. If the code does not help, contact your Nortel Networks support organization.

Action 16 Examine subsequent SEERs that will be issued.

Action 17 Check the return code for more information, along with previous SEERs issued. If this does not help, contact your Nortel Networks support organization.

Action 18 Check the return code as well as any preceding or subsequent SEERs for more information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 19 Contact the owner of the mailbox shown in the SEER, and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 20 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 21 Look up the return code for more information. If the code does not help, contact your Nortel Networks support organization. If the text of the SEER refers to “trying to open message” with a return code of 1007, this and subsequent 5627 and 5633 SEERs are not significant problems unless a number of them occur at once. The user can clean up any inconsistencies caused by this problem by deleting the offending message.

Action 22 The user should delete some messages or the administrator should increase the user’s voice storage allocation. If this does not help, contact your Nortel Networks support organization.

Action 23 That user's volume is full. User's should be reminded to delete all unnecessary messages. Auto-deletion of sent or read messages can be enabled. If this does not help, contact your Nortel Networks support organization.

Action 24 None. Please ignore this SEER.

Action 25 Advise the user shown in the SEER not to delete any messages in the mailbox, so that these can be studied by Nortel Networks support. Contact your Nortel Networks support organization.

Information in this SEER is as follows:

- HDR.DR is the time the message was left/sent/time-delivered
- FIR.DC is the time the message arrived in the recipient's mailbox
- R= is the number of recipients
- +B means this is a broadcast message
- +S means the message was sent to a system distribution list

The FID of the message is also included; if the user has deleted the message from his or her mailbox, the FID can be used to find the message if it exists in anyone else's mailbox. If the message was sent to a large system distribution list, or is a broadcast message, or if a broadcast message or one with a large distribution list exists in the user's mailbox prior to the late message, then this SEER can be ignored.

Otherwise, print out the following information and contact your Nortel development organization:

1. The message contents using the MD-MT utility.
2. The user's cabinet contents using "display + e" in the MD-CM utility.
3. The contents of any system distribution list that the message was sent to.

Action 26 Look up the return code for specific information. If the code does not help, contact your Nortel Networks support organization.

Action 27 To reset the MWI, send a new message to the user's mailbox, then have the user log in and read all messages that are new. The MWI should now be set correctly.

Action 28 Examine the related SEERs. Check that the preferred language of the user is a valid, installed language. Note: "Preferred language override" only applies to Call Answering and Express Messaging.

Action 29 Examine subsequent SEERs containing the same DN or user or mailbox for more information.

Action 30 Examine the preceding SEERs for more information.

Action 31 Examine the preceding SEERs for more information. If there are no preceding SEERs, the problem might be either that a non-CCA user forwarded his or her phone to CCA or the directory has a serious problem.

Action 32 Define a mailbox for the non-user or stop the offending telephone from being forwarded to CCA.

Action 33 Contact your Nortel Networks support organization to replace with the correct vss.pd.

Action 34 Record a greeting. If the problem persists, check the return code and contact your Nortel Networks support organization.

Action 35 Ensure that the time is set correctly. If problem persists, contact your Nortel Networks support organization.

Action 36 If problem persists, contact your Nortel Networks support organization.

Action 37 Act according to the return code indicated.

Action 38 If problem persists, contact your Nortel Networks support organization.

Action 39 Check the return code in cm_EntryNotFound-_couldn't find the submbx info specified or in DD return code. If the problem persists, contact your Nortel Networks support organization.

Action 40 If the problem persists check the return code for specific information. If the return code does not provide a solution, contact your Nortel Networks support organization.

Action 41 Check the preferred language for the user and reset it, if necessary, to a valid language. If the problem persists, contact your Nortel Networks support organization.

Action 42 The SEER text should describe the exact problem. If the action is not obvious from the description, contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 43 Use ad_util to enable the CCA debug flag, then check the console window during similar scenarios. The console window will show all call-progress information received from the switch. The "CallState" values can be found under the heading "Call Progress Status", and the "otherInfo" values can be found under the heading "Supplementary Information to Call Progress Status", both in Appendix 1 of this manual.

Action 44 Check the distribution of users in a multi-volume system. Get a larger disk if necessary. Possibly arrange for "read" messages to be removed off the system faster.

Action 46 If the problem persists, collect all relevant information and contact your Nortel Networks support organization.

Action 47 Refer to class 56 (for CCA) SEERs for more information. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 48 Refer to subsequent class 56 SEERs for more information. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 49 Examine related SEERs for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 50 Examine related SEERs for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 51 Contact your Nortel Networks support organization and supply SEER printouts covering the hour before and the hour after this SEER occurred.

Action 52 Contact the owner of the mailbox shown and determine the sequence of commands that were given by the user to cause the problem. Contact your Nortel Networks support organization.

Action 53 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 54 Look at the accompanying SEERs for more information. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 55 Look up the return code for more information. If the code does not help, contact your Nortel Networks support organization. One possibility is that the DN being transferred to is out of order. Try calling the DN directly.

Action 56 Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 57 Contact the customer’s security organization immediately, and the authorities, if necessary.

Voiceless Server (VLS)

Introduction

The Voiceless Server (VLS) is a multiserver in the sense that it provides concurrent responses to multiple requests and therefore, does not need to be a client.

In particular, note the following:

- The VLS does not need to be (and cannot be) acquired.
- Most commands issued to the VLS can be processed independently from previous commands.
- The VLS supports multiple simultaneous sessions.

Reports

5801 Info Debug No Action

Cause: Designer Information

Impact: None

5802 Problem Error Action 1

Cause: Unable to open the DR, the system profile, the customer profile, or the network database. The SEER will indicate which one could not be accessed.

Impact: The Voiceless Server (VLS) may restart itself, or it may shut down and be restarted by the Program Resource Manager (PRM). Any incomplete ACCESS Application Programming Interface (API) sessions being handled by this VLS will receive an end-of-session event.

5803 Critical Error Action 2

Cause: Unable to allocate heap or buffers. This may be due to memory fragmentation.

Impact: The Voiceless Server (VLS) will not be able to start up. Program Resource Manager (PRM) will attempt to restart the VLS. Until it recovers, the VLS will not handle any ACCESS Application Programming Interface (API) requests.

5804 Info Admin Action 3

Cause:
1. The VLS could not logon to the helix server.
2. The VLS is terminating.

Impact:
1. No VLS m_GetSerialNumAPI requests will be handled. This will be followed by SEER 5813. See SEER 5813.
2. The VLS will not be able to handle VLS API requests until it is restarted by the PRM.

5805 Info Debug No Action

Cause: There are not enough buffers to send VLS API results to the ACCESS Toolkit Communication Task (TC).

Impact: The API results will be lost. The API will make another request and should recover. The lack of buffers should be momentary.

5806 Problem Error Action 4

Cause: The VLS API results cannot be sent to the TC because the TC itself cannot be located.

Impact: The API results will be lost and the API will make another request. The VLS will not be able to process API requests from the affected TC until it recovers.

5807 Problem Error Action 1

Cause: The VLS is unable to access the customer profile or the network database. The SEER will indicate which of the two could not be accessed.

Impact: The VLS API request will not complete successfully and will have to return code indicating an invalid customer number.

5808 Problem Error Action 5

Cause: The Verify Password API failed to
- open/close the user's personal profile
- open/close the user's cabinet

Impact: The results of Verify Password should not be trusted. The ACCESS application could retry.

5809 Problem Error Action 6

Cause: An error occurred while trying to execute the m_QueryMailbox or the m_GetMBoxStat API. If the text says:
1. "Cannot get cabinet counters," failed to get the count of the number of messages in the user's cabinet
2. "Cannot read profile," failed to read the user's personal profile to get the external message counts and the MWI status

3. "Cannot get space usage details," failed to get the voice and the text storage details for the user specified
4. "Cannot open personal profile," failed in the attempt to open the user's personal profile
5. "Cannot open cabinet," failed to open user's cabinet
6. "Cannot close personal profile," failed to close the user's personal profile
7. "Cannot free cabinet CB," failure in the base VLS freeing cabinet CBs
8. "Cannot get cabinet CB," failure in the base VLS obtaining a cabinet CB

Impact: 1 - 5. An error code is returned to the ACCESS application, and the API call fails.

6, 7. The data is returned successfully to the ACCESS application.

7. The number of non-atomic VLS operations (m_GetMessageList and m_GetMessageUpdates) that can be handled may be reduced.

8. The API call fails and an error is returned.

5810 Problem Error Action 6

Cause: An error occurred while trying to execute the m_GetMessageList or the m_GetMessageUpdates API. The cause of this error depends on the SEER text:

1. "Failed to reset cabinet to," could not get an updated view of the cabinet
2. "Failed to retrieve message <n>," failed to get the information for the message indicated by n
3. "Cannot open cabinet," failed to open the user's cabinet
4. "Failed to get cabinet CB," failure in the base VLS obtaining a cabinet CB

Impact: 1. to 4. An error code is returned to the ACCESS application, and the API call fails.

5811 Problem Error Action 6

Cause: An error occurred while trying to execute the m_SetMsgCounter API. The cause of this error depends on the SEER text:

1. "Cannot get cabinet CB," failure in the base VLS obtaining a cabinet CB
2. "Cannot open cabinet," failed to open the user's cabinet
3. "Cannot open personal profile," failed in the attempt to open the user's personal profile
4. "Failed to read personal profile," failed to read the user's personal profile
5. "Failed to write the personal profile," failed to write the user's personal profile
6. "Cannot update MWI," failed to update the user's MWI
7. "Cannot close personal profile," failed to close the user's personal profile
8. "Cannot free cabinet CB," failure in the base VLS to free cabinet CBs

Impact: 1. to 6. An error code is returned to the ACCESS application, and the API call fails.

7. and 8. The data is returned successfully to the ACCESS application.

8. The number of the non-atomic VLS operations (m_GetMessageList & m_GetMessageUpdates) that can be handled may be reduced.

5812 Problem Error Action 6

Cause: An error occurred while trying to execute the m_QueryMsg API. The cause depends on the SEER text:

1. "Cannot get cabinet CB," failure in the base VLS obtaining a cabinet CB
2. "Cannot open cabinet," failed to open the user's cabinet
3. "Cannot retrieve file FIR," failed to retrieve the File Information Record
4. "Cannot free cabinet CB," failure in the base VLS to free cabinet CBs

Impact: 1. to 3. An error code is returned to the ACCESS application, and the API call fails.

4. The data is returned successfully to the ACCESS application.

The number of non-atomic VLS operations (m_GetMessageList & m_GetMessageUpdates) that can be handled may be reduced.

5813 Problem Error Action 6

Cause: An error occurred while trying to execute the m_FetSerialNum API. The cause depends on the SEER text:

1. "Cannot get cabinet CB," failure in the base VLS obtaining a cabinet CB
2. "Cannot get memory for SysRec," the NewVar for the system record failed
3. "Cannot read record for serial number," failed to read the system record
4. "Cannot free cabinet CB," failure in the base VLS to free cabinet CBs

Impact: 1. to 3. An error code is returned to the ACCESS application and the API operation fails.

4. The operation succeeds and the data returned is correct. The number of non-atomic operations that can be handled may be reduced.

5814 Problem Error Action 6

Cause: An error occurred while trying to execute the m_SetMboxEHNId API. The cause depends on the SEER text.

1. "Cannot get cabinet CB," failure in the base VLS obtaining a cabinet CB
2. "Cannot open cabinet," failed to open the user's cabinet
3. "Cannot open personal profile," failed in the attempt to open the user's personal profile to read the old CLIENT ID
4. "Failed to read personal profile," failed in the attempt to open the user's personal profile to read the old CLIENT ID

5. "Failed to write the personal profile," failed in the attempt to write back the new CLIENT ID value to the user's personal profile
6. "Cannot close personal profile," failed to close the user's personal profile
7. "Cannot free cabinet CB," failure in the base VLS to free cabinet CBs

Impact:
- 1. to 5. An error code is returned to the ACCESS application, and the API call fails
- 6. and 7. The data is returned successfully to the ACCESS application.
- 7. The number of the non-atomic VLS operations (m_GetMessageList & m_GetMessageUpdates) that can be handled may be reduced.

5815 Info Admin Action 6

Cause: A password violation occurred while attempting to verify a password.

Impact: The SEER reports a possible attempt to gain illegal access to a mailbox. Access to the mailbox will be disabled.

5816 Problem Error Action 7

Cause: An error occurred while executing the m_LocalToNetwork API.

Impact: The SEER reports an error trying to access the network database while trying to convert the mailbox. The API fails and an error return code is sent back to the ACCESS application.

5817 Problem Error Action 6

Cause: The m_GetGreetingInfo API failed while trying to open or close either the user's personal profile or the user's cabinet.

Impact: The SEER reports an error. If the error occurred while opening the cabinet, the command will fail.

5818 Minor Error Action 9

Cause: Could not access system record.

Impact: The Access api to get system record information will return with error. To the PMA feature this means that the PMA web server will not be able to initialize. Thus the PMA feature will not work.

5819 Minor Error Action 8

Cause: Could not perform find user operation.

Impact: The Access api could not perform the requested operation.

Actions

Action 1 Contact your Nortel Networks support organization.

Action 2 If the VLS does not start up, reboot the affected node to eliminate memory fragmentation.

Action 3 Contact your Nortel Networks support organization.

Action 4 Ensure cabling is intact and the host side is operational. Contact your Nortel Networks support organization if the problem persists.

Action 5 Contact your Nortel Networks support organization.

Action 6 Contact your Nortel Networks support organization.

Action 7 Retry and contact your Nortel Networks support organization, if the problem persists.

Action 8 Retry, if the problem persists change find user parameters. If the problem still persists, contact the Nortel Networks support organization.

Action 9 If rc=133 and the PMA feature is installed, verify that the customer number is set correctly on the admin page virtual directory. If the problem still persists, contact your Nortel Networks support organization.

MI Tape Procs (MTP)

Introduction

The tape driver creates SEERs to report errors encountered during tape accesses. All numbers are given in decimal.

Reports

5900 Minor Error Action 1

Cause: A tape drive has reported an exception during an access.

The SEER description line is formatted as:

```
Tape # >  sense key: #  [FM]  [EOM]
```

FM and EOM indicate unexpected filemark and end of media respectively.

Use the sense key number to select the correct procedure below.

Impact: Disrupts the process that is using the tape drive, for example, software configuration, backup or restore.

5901 Minor Error Action 2

Cause: The SCSI device driver has reported an exception during a tape access. The driver error encodes the type of exception.

Impact: Disrupts the process that is using the tape drive, for example, software configuration, backup or restore.

Action 1 An error occurred during tape drive operation. Use the following chart to select the appropriate action:

Sense key	Meaning	Action
0	Unexpected filemark	If “FM” appears in the SEER, an unexpected filemark has been encountered. This is most likely due to supplying the “$” argument to the tape server when the tape is actually non-bootable.
2	Not ready	Check that there is a cartridge in the tape drive and that the drive’s door latch is in the closed position.
3	Medium error	1. Clean tape drive head. 2. Retry opertation. 3. Replace tape if problem persists.
4	Hardware error	1. Check the cartridge to see if the tape has snapped. 2. If not, replace tape drive.
6	Unit attention	This sense key appears after tape cartridge insertion/ removal or a SCSI bus reset. If you have not just inserted or removed a tape, look for termination/ cabling problems; if none are found contact Nortel.
7	Write protected	1. Turn the write protect switch on the cartridge away from the “SAFE” position. 2. Viper 2150 tape drives cannot write DC300XLP, DC9100, or DC9200 cartridges
8	Blank check	1. Replace tape and retry. 2. If problem persists, replace tape drive.

Action 2 There has been an error while accessing the tape drive.

Driver error	Meaning
129	selection timeout
130	unexpected disconnect
131	bus reset
132	read parity error
133	timeout
255	driver queue full (SPM only)

This SEER almost always indicates some hardware failure along the SCSI datapath, which consists of the 68K board, the 68K board transition module, SCSI cabling, disk/ tape drive, and disk/tape power converter. Look for and clear hardware fault in SCSI subsystem.

Program Resource Manager (PRM)

Introduction

The Program Resource Manager (PRM):

- loads the operating system into all voice nodes
- starts all system programs
- helps programs to control (for example, start and stop) other programs

The impact varies greatly from one error to another.

These SEERs provide the return code for runtime and I/O errors.

Reports

6001 Critical Error Action 1

Cause: An unexpected internal PRM state was encountered.

Impact: The PRM will try to correct this unexpected state.

6002 Critical Error Action 2

Cause: A problem was detected in the system STARTLIST, which contains the programs the system is to run. Either the STARTLIST is not there or the parameters in the file do not correspond to expected inputs.

Impact: If the STARTLIST is not there, the system will not run at all. If something is wrong in the STARTLIST, some programs may not be started and the service will likely be affected.

6003 Major/Minor Error Action 1

Cause: Some application tried to request action from'PRM' but could not communicate with 'PRM' (name not found in Name Server).

Impact: The program appearing in the SEER listing could not request action from PRM. Some service may be affected.

6004 Critical/Info Error Action 1

Cause: General communication problem (tasking error) between PRM and some application.

Impact: The program appearing in the SEER listing is not executed. Depending on the program, some service may be lost.

6005 Critical/Minor Error Action 3

Cause: The PRM could not register its name with the name server.

Impact: The PRM will not be known to the rest of the system and the system will not function.

6006 Minor/Critical Error Action 1

Cause: An unknown program id or internal task Id was received by PRM.

Impact: A node may not reboot properly, or PRM cannot send node state information to the task requesting this information from the PRM.

6007 Critical Error Action 4

Cause: An invalid control request was received by PRM. Request can be made to the PRM to perform certain control functions such as reset nodes, turn audit controls on and off, turn debug on and off. This request is out of range and is ignored. The return code will identify the requesting function.

Impact: The request is ignored.

6012 Critical/Major Error Action 2

Cause An error was detected in the STARTLIST. A line in the STARTLIST was too long. The return code will indicate the line number of the erroneous string.

Impact: The line containing the error will be ignored (the program in the STARTLIST is not executed). Some service may be affected.

6013 Major Error Action 5

Cause: Overlay program cannot be loaded because of some system error.

Impact: The service that was to be provided by that program will not be provided.

6014 Critical/Minor/Info Error Action 5

Cause:
1. The diagnostic programs found a problem in one of the nodes during rebooting.
2. PRM could not get hardware information from a node during an installation/upgrade procedure.
3. PRM uses invalid node id to register/deregister with the watchdog.

Impact:
1. System will attempt to restart node.
2. The installation/upgrade operation will fail.
3. PRM will not get registered/deregistered with the watchdog.

6015 Major/Info Error Action 5

Cause: The program name provided in the SEER could not be loaded on the node provided in the SEER, probably because the file was not found. Another SEER (with the same error code) is provided to display the return string from the failed load.

Impact: The program is not loaded. The service that was to be provided by that program will not be provided.

6017 Info Error No Action

Cause: Auditing information is provided.

Impact: No impact.

6019 Critical/Minor Error Action 5

Cause: PRM received a request or message for an action to be executed on a node that does not exist.

Impact: A node might not be loaded with OS. Some service will be affected if a node is not up.

6020 Minor/Info Error Action 6

Cause: PRM received wrong information or an extra message from another node when booting that node.

Impact: The node is reset and another attempt is made at loading programs onto this node in the case of wrong information, or the extra message is ignored by PRM.

6021 Minor Error Action 6

Cause: The PRM received an incorrect packet count when booting a node.

Impact: The node is reset and another attempt is made at loading programs onto this node.

6022 Minor Error Action 6

Cause: When booting a node, transmission of a message to the BootROM for that node failed (this was detected in the timeout sequence).

Impact: The node may not be booted. It will be reset to try to correct the problem

6023 Major/Info Error No Action

Cause: When booting a node, BootROM of the node failed to respond to PRM within an expected time period.

Impact: Attempts will be made to restart the node. Should these attempts fail, SEER 6024 actions can be followed.

6024 Info Error Action 6

Cause: The PRM has tried many times to reboot a node. The node may be faulty.

Impact: No service will be provided by the specified node. The PRM will stop attempting to reboot that node.

6025 Minor Error Action 5

Cause: PRM could not run a a startup diagnostic program.

Impact: Diagnostic could not be started. The system may still work because the diagnostic will just be bypassed.

6026 Minor Error Action 7

Cause: MSM Bus controller switchover diagnostics could not be run

Impact: System will continue to run, but MSM bus controller switchover capability will not be tested.

6027 Major Error Action 8

Cause: MSM Bus Controller diagnostic program encountered a failure.

Impact: MSM system will probably not be able to switch over to backup MSP node in case of problems.

6028 Info Error No Action

Cause: Report bus diagnostic status.

Impact: No impact.

6029 Major Error Action 6

Cause: BootROM diagnostics failed for a specific node.

Impact: Corresponding node will not boot and service will not be provided by that node.

6030 Minor/Info Error Action 1

Cause:

1. The task was warned/killed by the PRM audit program. Tasks are regularly audited by the PRM to see if they are still running. This task did not respond to the audit. The first time, a warning SEER is issued. If there is still no response, it will be killed.
2. The PRM itself was warned/killed by the watchdog. The PRM is audited by the watchdog. The PRM did not respond to the audit. The first time, a warning SEER is issued. If there is still no response, it will be killed.

Impact:

1. If the SEER was a warning, no impact. Otherwise, the task indicated in the SEER list was killed by the PRM audit program. This task will be restarted.
2. If the SEER was a warning, no impact. Otherwise, the PRM will be killed and the entire system restarted.

6031 Minor Error Action 1

Cause:

1. Tasks are audited by the PRM to determine their current state. This audit request could not be sent to the target program.

2. The PRM is audited by the watchdog. This audit request could not be sent to the PRM.

Impact:
1. The task is not audited. The PRM does not know the current state of this task. On the next audit session, the PRM will attempt another audit.
2. The PRM is not audited. The watchdog does not know the current state of the PRM. On the next audit session, the watchdog will attempt another audit.

6032 Minor Error Action 1

Cause: The audit table is full. This task could not be registered in the audit table.

Impact: This task is not audited during the normal audit cycle.

6033 Minor Error Action 1

Cause: The PRM audit program or the watchdog received unknown audit results from a task or the PRM.

Impact: The PRM audit program or the watchdog missed a response sent by a task. If this is a frequent occurrence, the task will be killed

6035 Critical Error Action 9

Cause: The PRM could not open the Hardware Database. The Hardware Database may be corrupted.

Impact: The PRM will not know the states of a given node. The system will likely not function.

6036 Info Error Action 9

Cause: The PRM could not close the Hardware Database properly. This may occur during system bootup or recovery operations.

Impact: This instance of the Hardware Database may or may not be closed. If the file is open, the sweeper will close it.

6037 Critical Error Action 9

Cause: The PRM has problem with opening the Hardware Database, or with reading and finding information in the Hardware Database.

Impact: Because certain information will not be available to the PRM, the PRM will not be able to perform updates or know the states of problem nodes. This may cause programs on a particular node not to load.

6038 Info Status No Action

Cause: The PRM is reporting on the current state of the node indicated in the SEER.

Impact: No impact.

6040 Critical Error Action 10

Cause: The PRM could not open the System Profile Record. This System Profile Record will indicate what action should be taken on fatal system errors.

Impact: Calls will always be accepted on fatal system errors (i.e. nonrecoverable disk error).

6042 Critical Error Action 10

Cause: The PRM could not read or close the System Profile Record.

Impact: Refer to SEER 6040 for possible errors when opening. If close has a problem, the file cannot be closed by the PRM. The sweeper will close it.

6043 Info Info No Action

Cause: The PRM is reporting the action that will be taken when a fatal system error occurs.

Impact: No impact.

6045 Minor/Critical/Info Error Action 1

Cause: The various tasks that require node status information are not updated due to a failure in the PRM when sending out this information.

Impact: The System Status display may show an incorrect node state, the Voice Channel Maintenance and Diagnostic Controller may not know the correct state of the nodes.

6046 Major Error Action 11

Cause: The PRM was requested to bring up a node that has not been configured in the Hardware Database.

Impact: The node will not be brought up.

6050 Critical Error Action 1

Cause: A problem had occurred when the PRM was starting some program, and an attempt by the PRM to send this information to the originating program requesting the start (i.e. Diagnostic Controller, Voice Channel Maintenance) failed. The attempt failed due to a lack of memory buffers in the PRM.

Impact: No service will be provided by the program that could not be started.

6051 Critical Error Action 1

Cause: A part of the PRM program for starting programs on a specific node, could not be started.

Impact: Programs cannot be started on the specified node, and no service will be provided by that node.

6052 Minor Error Action 1

Cause: A request inside the PRM program to start a specific program failed.

Impact: The service that was to be provided by that program will not be provided.

6055 Critical/Info Error Action 1

Cause: PRM received information from or about a node it does not know about.

Impact: Any command that can affects invalid nodes will be ignored.

6056 Critical/Minor Error Action 12

Cause: PRM timed out waiting for a disk to spin up.

Impact: The node will be rebooted and the disk is spun up again.

6057 Minor Error Action 1

Cause: A error occurred when the PRM was sending information to other programs in the system. The most likely occurrence is the system running out of communication buffers.

Impact: Other programs will not receive up-to-date status information.

6058 Critical/Info Error Action 6

Cause: No action is necessary if this is an Info SEER. The nodes are frequently polled by the PRM to determine their running state. In this case, the PRM has lost the polling response from the node and assumes it needs to be rebooted.

Impact: The PRM will reboot the node.

6059 Major/Info Error Action 13

Cause: The master MSP node on an MSM system had problems, or was disabled.

Impact: The other (backup) MSP node became the master. The system is working as expected in the case of the MSP node disabling.

6067 Minor Error Action 14

Cause: During request to PRM to make online changes based on changes in the system STARTLIST, an attempt was made to delete an OVERLAY program from the system.

Impact: OVERLAY program will remain running. The deletion of OVERLAY programs from the STARTLIST will only take affect when the node is rebooted. All other online change will take affect

6068 Minor Error Action 15

Cause: During request to PRM to make online changes based on changes in the system STARTLIST, some error occurred. Other SEERs should indicate the type of error that occurred.

Impact: The system will be left in its original state, with no STARTLIST changes taking affect.

6075 Major Error Action 16

Cause: Bus controller is not set up properly for MSM switchover. PRM disallows MSP switchover because bus controllers are not setup properly.

Impact: MSM system cannot not switch over to backup MSP as requested.

6076 Major Error Action 16

Cause: The PRM actually attempted MSP switchover on MSM system, but bus controller hardware did not switchover control as expected.

Impact: MSM system did not switch over to backup MSP as requested.

6098 Info System No Action

Cause: Debugging information.

Impact: None

6099 Info System No Action

Cause: Displaying status information.

Impact: No impact

Actions

Action 1 No action is necessary if it is only an Info SEER. If the error persists or system appears affected, report the incident to the Nortel Networks support organization.

Action 2 Power down the system, wait 30 seconds, power up the system. If the problem persists, contact your Nortel Networks support organization.

Action 3 Power down the system, wait 30 seconds, power up the system. If the problem persists, contact your Nortel Networks support organization.

Action 4 If the error persists or system appears affected, report the incident to the Nortel Networks support organization.

Action 5 Power down the system, wait 30 seconds, power up the system. If the problem persists, contact your Nortel Networks support organization.

Action 6 If problem persists or system appears affected, disable and enable the node specified in the SEER. If there is still a problem, contact your Nortel Networks support organization.

Action 7 Ensure both MSP nodes are InService and that bus controller switchovers are enabled. Rerun bus controller switchover diagnostic. If there is still a problem, contact your Nortel Networks support organization.

Action 8 Power down the system, wait 30 seconds, power up the system. If the problem persists, check and replace bus controller card hardware. If problem still persists, contact your Nortel Networks support organization.

Action 9 If the problem persists or system appears affected, contact your Nortel Networks support organization.

Action 10 North American users can ignore this problem. European users, please contact your Nortel Networks support organization if the problem persists.

Action 11 Please contact your Nortel Networks support organization.

Action 12 If the problem persists or system appears affected, contact your Nortel Networks support organization.

Action 13 If this did not result from disabling the master MSP node, check to see if the node that died will come up in the Service Standby mode. If it will not come up, try to bring it back by disabling and enabling it. If the problem persists or system appears affected, contact your Nortel Networks support organization.

Action 14 Call your Nortel Networks support organization.

Action 15 Call your Nortel Networks support organization.

Action 16 Disable the backup MSP node and start manual diagnostics on it. Replace any cards found faulty. Retry the operation. If the problem persists, check that the Bus Controller cards and the Bus Controller Transition Modules (BCTM) are inserted properly on both active and backup MSP nodes, and the cable connecting the BCTMs is on properly. If the problem persists, replace cards and/or cable. If problem still persists, call your Nortel Networks support organization.

Maintenance Administrator (MAD)

Introduction

The Maintenance Administrator (MAD)

- maintains the integrity of the Hardware Database
- maintains Meridian Mail configuration
- acts as an agent for manipulation of Meridian Mail software
- starts online, scheduled diagnostics
- monitors online storage expansion on MSM systems

If any Meridian Mail component has to be adjusted or enabled, the MA program will be run. MA errors prevent a component from being used.

A Class 61 SEER usually contains

- return code from the MA, HD, DD, VCA, or PRM
- Hardware Database location code

Other MA SEERs are reported in other hardware SEERs, such as HD or DD. These SEERs contain

- return code
- test result from an Offline Test
- Hardware Database location code
- number of the DSP card. DSP card numbers start at 0.

Reports

6100 Info Admin No Action

Cause: General maintenance information

Impact: None

6101 Minor Error Action 1

Cause: Illegal request to add a component. No parent component.

Impact: Component not added

6102 Minor Error Action 2

Cause: Component not in correct state for the request.

Impact: Request is not processed.

6103 Minor Error Action 3

Cause: A Delete, Unload, Disable, or Courtesy Disable operation failed on a child process. The SEER provides a return code and the location of the failed component.

Impact: The requested operation failed on a child component of the requested component, but the operation may have been successful on other child components before the error occurred.

6104 Minor Error Action 4

Cause: Diagnostics failed on a hardware component. See SEER for more information on which component failed.

Impact: This component and its children, and possibly its parent are marked faulty.

6106 Minor Error Action 5

Cause: The requested operation is not supported for this component type.

Impact: Requested operation not completed.

6108 Minor Error Action 3

Cause: A Load, Enable, or ForceState operation failed. The SEER provides a return code which is another MA code or a code from a lower layer, such as HD, DD, VCA, or PRM.

Impact: The requested operation failed on a child component of the requested component, whose location is provided in the SEER. The operation may have been successful on other components, including the requested component, before the error occurred.

6109 Minor Error Action 6

Cause: An operation was started but not completed. In case of offline test, hardware database is not changed.

Impact: Operation requested is not completed.

6110 Minor Error Action 7

Cause: The hardware location code received by MA is invalid.

Impact: The requested operation is not completed.

6111 Minor Error Action 8

Cause: A component modification was attempted with changed key information.

Impact: Requested operation was not completed.

6112 Minor Error Action 9

Cause: Action was requested on a VP card which contains no DSP in the correct state for testing.

Impact: Test not executed.

6113 Minor Error Action 10

Cause: Offline test failed on all DSPs of the card tested.

Impact: VP card is marked faulty.

6114 Minor Error Action 11

Cause: The first chip of a DSP voice card, whose card number is provided, failed the Offline Test. The VPD return code isolates the cause.

Impact: The Offline test request failed.

6115 Minor Error Action 11

Cause: The second chip of a DSP voice card, whose card number is provided, failed the Offline Test. The VPD return code isolates the cause.

Impact: The Offline test request failed.

6116 Minor Error Action 12

Cause: A DSP has failed diagnostics.

Impact: The DSP is marked faulty and therefore cannot be used to service calls.

6122 Minor Error Action 13

Cause: Waiting for previous request on component to be completed.

Impact: Current request not processed.

6123 Minor Error No Action

Cause: Waiting for node to be loaded.

Impact: None

6124 Minor Error Action 14

Cause: Node could not be loaded.

Impact: Node marked faulty.

6125 Minor Error Action 15

Cause: Node in an unexpected state.

Impact: Diagnostics not executed.

6126 Minor Error No Action

Cause: No modem on SBC card to be tested.

Impact: None

6127 Minor Error Action 10

Cause: A hardware fault is detected on SBC card.

Impact: Port marked faulty.

6128 Minor Error Action 16

Cause: SBC diagnostics report some execution problem. See previous SEERs for actual fault.

Impact: Diagnostics not completed

6130 Minor Error Action 17

Cause: MA/VM II communication problem.

Impact: Request not processed.

6131 Minor Error Action 10

Cause: Hardware fault(s) detected on Utility Card.

Impact: Card marked faulty.

6132 Minor Error Action 18

Cause: RBD diagnostics report some execution problem. See previous SEERs for actual fault.

Impact: Diagnostics not completed.

6133 Minor Error No Action

Cause: No voice ports found on node.

Impact: None

6134 Info Admin No Action

Cause: A card of the specified type which the software could not detect previously on the specified node, can now be detected.

Impact: None

6135 Major Error Action 19

Cause: A card of the specified type that could previously be detected by software can no longer be detected.

Impact: This card and all of its children components are marked faulty.

6136 Minor Error Action 20

Cause: An error has occurred in attempting to update the hardware database. Check the return code for more information.

Impact: The hardware database is not correctly updated.

6137 Minor Error Action 21

Cause: Maintenance administrator cannot get node status from PRM.

Impact: This depends on the operation in progress. Typically the impact will be minimal.

6138 Minor Error Action 22

Cause: Attempt by the MA to communicate with RST_Modem failed.

Impact: The maintenance operation is terminated. If this problem occurs on a node, reboot then ignore it. The impact is minimal.

6139 Minor Error Action 23

Cause: Maintenance software was informed by PRM of a problem with a diagnostics program.

Impact: The corresponding diagnostic is not fully executed.

6140 Minor Error Action 24

Cause: PRM could not reset the requested node.

Impact: The maintenance operation is not completed.

6141 Info Admin Action 25

Cause: The parent card is faulty in the hardware database.

Impact: Maintenance operation not performed.

6171 Major Error Action 26

Cause: Error accessing the system Profile to read the diagnostics schedule.

Impact: Cannot perform scheduled diagnostics.

6172 Minor Error Action 27

Cause: Error accessing hardware database to change SCSI device status.

Impact: Cannot update hardware database with SCSI device status.

6173 1. Minor Error No Action

2. Major Error Action 28

Cause: Case 1: Online storage expansion is being run on non-MSM system.

Case 2: Cannot obtain disk status after online storage expansion is performed. A probable cause is that the node is down.

Impact: Case 1: No impact on the system. Operation will be aborted automatically.

Case 2: Disk(s) will not be accessible. Hardware database is not updated and disk shadowing capability may be affected.

6174 Major Error Action 29

Cause: Cannot initialize the SCSI layer or error in obtaining proper SCSI device status and ID for syncing.

Impact: Disk syncing fails. No disk shadowing capability.

6197 Minor Error Action 30

Cause: MA tasking problem.

Impact: Request not completed.

6198 Minor Error Action 31

Cause: PRM could not start program.

Impact: Request not completed.

6199 Minor Error Action 32

Cause: Timeout waiting for diagnostic result.

Impact: Card marked faulty.

Actions

Action 1 Verify that your request is correct and retry the operation. If the operation still fails, contact your Nortel Networks support organization.

Action 2 Put component in correct state and repeat request.

Action 3 Try the command again. If the error persists, contact your Nortel Networks support organization.

Action 4 Replace the faulty hardware components and re-execute the diagnostics.

Action 5 If the requested operation should be supported on this component, retry the operation. If the operation is unsuccessful, disable the node and retry the operation. If the problem persists, contact your Nortel Networks support organization.

Action 6 Check SEER for reason why operation is not completed. Repeat request.

Action 7 Retry the operation. If it is unsuccessful, contact your Nortel Networks support organization.

Action 8 Correct the request and retry.

Action 9 Put DSP in correct state and repeat action.

Action 10 Replace card.

Action 11 Depends on the return code from VCA or other components. Correct the situation and try again. If the problem persists, contact your Nortel Networks support organization.

Action 12 Replace the faulty VP card and re-execute diagnostics.

Action 13 Try request later.

Action 14 Try replacing the MMP40 or 68K card.

Action 15 Try running diagnostics again. If problem persists, contact your Nortel Networks support organization.

Action 16 Follow the action suggested by the SEER which provides the actual fault.

Action 17 Contact your Nortel Networks support organization.

Action 18 Follow the action suggested by the SEER which provides the actual fault.

Action 19 If the card is still seated in the system, test using offline diagnostics. If the card was removed, replace it to avoid service impact. Be sure to follow standard card replacement procedures.

Action 20 If the operation can be repeated, then retry. If the problem still exists, contact your Nortel Networks support organization.

Action 21 Examine the return code provided in the SEER for more information. Check that the node is up and running. If it is not, disable and reenable the node. Repeat the maintenance procedures. If the problem persists, contact your Nortel Networks support organization.

Action 22 Check that the problem node is up and running. If the node is running and this SEER is repeatedly printed, then it is possibly a startlist problem. If the problem node is not running, disable and reenable the node. If the problem persists, contact your Nortel Networks support organization.

Action 23 Retry the diagnostics. If unsuccessful, replace hardware components and try the diagnostics again.

Action 24 Investigate the return code (rc) provided in the SEER. Repeat the procedure. If the problem persists, refer to the section on node recovery in the *Trouble Locating and Alarm Clearing Guide*.

Action 25 Run out-of-service diagnostics on the parent card.

Action 26 Contact your Nortel Networks support organization. Report any SEERs and return codes.

Action 27 Contact your Nortel Networks support organization. Report any SEERs and return codes.

Action 28 Contact your Nortel Networks support organization. Report any SEERs and return codes.

Action 29 Contact your Nortel Networks support organization. Report any SEERs and return codes.

Action 30 Follow any recommendations of RC/SEERs. If unclear, contact your Nortel Networks support organization.

Action 31 Check if the node is running; if it is not, then follow the procedures in the *Trouble Locating and Alarm Clearing Guide* to bring the node into a proper state. If the node is running, check the return code and related SEERs for more instructions for action.

Action 32 Check SEERs. If there is no good indication of the nature of the problem, replace the card.

Test Serial (TS)

Introduction

The TestSerial program is used for testing serial ports that reside on the SBC (68K) with an RS232 (NTGX06AB) transition module (TM). Diagnostics are supported for the following testing environments:

- System StartUp diagnostics
- OutOfService diagnostics on the SBC card
- Manufacturing

Three tests are supported

- external loopback (manufacturing only)
- internal loopback (all environments)
- transmit data (manufacturing only)

In the manufacturing environment, DiagCntl must be used to execute this program. In this environment the user has the ability to customize tests according to their needs. See related documents for more information.

For StartUp and OutOfService, the maintenance software automatically determines which TM (NTGX06AA or NTGX06AB) resides on the node. This program is executed only if an NTGX06AB is detected. The tests executed are

- Internal Loopback of Port 1
- Internal Loopback of Port 2
- Internal Loopback of Port 3
- Internal Loopback of Port 4

Should any of the above tests fail, the transmitting port and the SBC card are flagged as faulty. Successful execution of these diagnostics changes the faulty states to OutOfService.

Reports

6200 Admin Info No Action

Cause: General information.

Impact: None

6201 Admin Info Action 1

Cause: I/O error occurred when writing to the file open against the transmit port.

Impact: Diagnostics not fully executed on all ports.

6202 Admin Info Action 1

Cause: I/O error occurred when reading from the file open against the receive port.

Impact: Diagnostics not fully executed on all ports.

6203 Admin Info Action 3

Cause: The diagnostics failed on the specified port. The string received does not match the string transmitted.

Impact: The transmit port and SBC card are marked FAULTY.

6204 Admin Info Action 1

Cause: TestSerial requires the ‘Rst_Modem’ overlay for successful execution. The attempt to locate this task failed.

Impact: Diagnostics not fully executed on all ports.

6205 Admin Info Action 1

Cause: I/O error occurred when opening a file to transmit data.

Impact: Diagnostics not fully executed on all ports.

6206 Admin Info Action 1

Cause: I/O error occurred when opening a file to receive data.

Impact: Diagnostics not fully executed on all ports.

6207 Admin Info No Action

Cause: One of the ports requested to test is used for SEER printing. These ports are not tested using this program. Successful printing of SEERs is a sufficient test of this port.

Impact: This port is not tested by this program.

6208 Admin Info Action 2

Cause: One or both port names are blank (“).

Impact: These port(s) are not tested.

6209 Admin Info Action 1

Cause: Could not open, read, or close the system OrgProfile file.

Impact: All ports are tested.

Note: Active SEER printer ports are not normally tested. If one of the ports that is being tested is the SEER printer port, then it may fail diagnostics.

6210 Admin Info Action 1

Cause: Argument string received by this program does not have a diagnostics ID.

Impact: The diagnostic is not executed.

6211 Admin Info Action 1

Cause: Argument string received by this program does not have a ‘SEER flag’.

Impact: The diagnostic is not executed.

6212 Admin Info Action 1

Cause: Argument string received by this program is not of the expected format.

Impact: The diagnostic is not executed.

Actions

Action 1 The problem may be one of the following:

a) I/O Error

b) Bad argument string

c) Missing rst_modem overlay

Follow these steps to try to correct the problem:

1. If the failure occurs during startup diagnostics, then wait until the system is fully booted and move to step 2. If the failure occurred during OutOfService diagnostics, then move to step 2.
2. If the node is not already in the OutOfService or Faulty state, disable it.
3. Execute or re-execute the OutOfService diagnostics on the SBC card.
4. If problem still occurs, then use any return codes (rc) included in the SEER and follow the action (if any) suggested by the rc..
5. If the problem still persists, contact your Nortel Networks support organization.

6 In case of (b), if this occurs during manufacturing test, check the command line parameters and retry the operation.

Action 2 Use HWMOD to give these ports valid names in the hardware database and re-execute diagnostics on this node's SBC card. If the problem still exists, contact your Nortel Networks support organization.

Action 3 The test failed on the specified port. Follow the "Out-of-Service diagnostics on 68K card fail" procedure in the *Trouble-locating and Alarm-clearing Procedures* guide (NTP 557-7001-503)

RS-232 Service Module (RSM)

Introduction

The RS-232 Service Module or RSM Unit provides the software interface to the RS-232 ports.

Impact of RSM errors varies. Fatal errors disable the RS-232 functions.

A Class 63 SEER usually contains text only.

Reports

6300 Minor Error Action 1

Cause: The RSM card may be out of position or it is defective.

Impact: RSM functions will not be available.

6301 Minor Error No Action

Cause: The RSM clock returned INVALID TIME to user.

Impact: Not applicable for MM11.

6302 Minor Error No Action

Cause: The RSM clock has been reset. Reset time difference is given out in seconds.

Impact: Not applicable for MM11.

6303 Minor Error No Action

Cause: Nil time stamp returned to user because system ran out of buffers.

Impact: Not applicable for MM11.

6304 Minor Error Action 2

Cause: RSM major alarm turned on by the RSM software.

Impact: Hardware failure.

6305 Minor Error Action 3

Cause: RSM minor alarm turned on by the RSM software.

Impact: Minor. No problems indicated.

Actions

Action 1 Check the position of the RSM card. If it is fine, run diagnostics on the card. Correct the error and reboot the system.

Action 2 Use boot diagnostics to check RSM. If the alarm persists, the RSM card must be replaced.

Action 3 Contact your Nortel Networks support organization.

Operating System Program (OSP)

Introduction

The Operating System Program (OSP) is the heart of the Meridian Mail system. This program operates the system by delegating work to the other programs, such as PRM and VCM. This Operating System also interfaces with the hardware.

The SEERs that are produced in this class deal with the ability of the Meridian Mail system to provide redundancy and recover from hardware and software errors.

However, in many cases where a problem occurs in this program, there is no way to have SEERs printed or recorded. Any such failure is reported directly to the attached terminal. Print this information out and contact your Nortel Networks support organization.

Reports

6401 Major Error Action 1

Cause: Applicable only on MSM systems.
The specified MSP node has lost physical detection of the Bus Controller card on the other MSP node. This will occur during normal maintenance when either the Bus Controller card or Bus Controller Transition Module (BCTM) is removed, or the cable connecting the BCTMs is disconnected. If this occurs unexpectedly, there may be a problem with any of the above-mentioned hardware.

Impact: The system should continue to run, but redundancy is lost because MSP switchovers can no longer occur.

6402 Info System Action 2

Cause: Applicable only on MSM systems.
The specified MSP node can detect the Bus Controller card on the other MSP node.

Impact: If MSP redundancy should be available at this time, MSP switchovers will be automatically reenabled and the system redundancy restored.

6407 Major Error Action 3

Cause: Applicable only on MSM systems.
Firmware release on the Bus Controller card is incompatible with current release of the software. This is caused by either a manufacturing problem with the Bus Controller card, or a software release control problem.

Impact: System may not run reliably.

6410 Info Error Action 4

Cause: Applicable only on MSM systems.
Error occurred in sending status update information to other programs (VCM).

Impact: No impact on the system operation.

6411 Major Error Action 1

Cause: Applicable only on MSM systems.
Attempt to enable MSP switchovers failed because the backup MSP could not detect the Bus Controller card on the active MSP.

Impact: MSP switchovers cannot be enabled. Loss of system reliability in the case that active MSP node encounters problems. Call Processing and terminal I/O will still work properly.

6412 Info System No Action

Cause: Applicable only on MSM systems.
Active Bus Controller is switching to Internal BC Timing Mode. This may occur because of a higher level request to do so. If this occurred because of an error, other Class 64 SEERs will be output specifying the problem.

Impact: MSP switchovers are disabled until the Bus Controllers on active, and the backup MSPs are in sync again (1 to 2 minutes).

6413 Info System No Action

Cause: Applicable only on MSM systems.
Active Bus Controller has been successfully synced into External T1 clocking source.

Impact: System is running as it should.

6414 Info System No Action

Cause: Applicable only on MSM systems.
Active Bus Controller has been successfully synced into External T1 clocking source for long enough period of time that, if the problem in External T1 source occurs, the Bus Controller will go to Holdover Mode rather that revert to its own Internal BC Timing.

Impact: System is running as it should.

6415 Major Error Action 5

Cause: Applicable only on MSM systems.
Some problem has occurred in communication between the Bus Controller card and the OS software. The card is either sending invalid messages, or has stopped sending messages and a timeout has occurred.

Impact: The MSP node that the Bus Controller card is on should no longer be considered reliable.

6416 Info System No Action

Cause: Applicable only on MSM systems. Backup Bus Controller card has synced into active Bus controller card.

Impact: System redundancy is now available (MSP switchovers will be enabled).

6417 Minor Error Action 6

Cause: Applicable only on MSM systems.
Bus Controller on Active MSP node going to Holdover Mode because it can no longer track the External T1 clock source.

Impact: The system will run properly and redundancy is maintained. However, the MSM system is no longer completely in clock sync with the external source.

6418 Major Error Action 7

Cause: Applicable only on MSM systems.
Bus Controller on Backup MSP node going to Holdover Mode because it can no longer track the active Bus Controller.

Impact: System redundancy is lost because MSP switchovers cannot occur and are disabled.

6419 Info Error Action 8

Cause: Applicable only on MSM systems.
Active or backup Bus Controller is having problems tracking the clock source it should be tracking., but is still able to do it. The message is only a warning.

Impact: System operation remains the same.

6497 Minor Error Action 9

Cause: Failure to register on-line ECS with system.

Impact: The ECS is still running, but there is no on-line record of it as running.

6498 Info/Debug No Action

Cause: General debug information useful only to system designers.

Impact: None

6499 Info System No Action

Cause: General system information.

Impact: None

Actions

Action 1 Check that the Bus Controller cards and the Bus Controller Transition Modules (BCTM) are inserted properly on both active and backup MSP nodes, and the cable connecting the BCTMs is on properly. If the problem persists, replace the cards or cable, or both. If the problem persists, call your support organization.

Action 2 If one of the MSP nodes is OutOfService, it will have to be enabled before the system redundancy is restored.

Action 3 Contact your support organization. Either the Bus Controller card or the software release should be changed as soon as possible.

Action 4 This should only occur when many other Class 41 (VCM) or Class 34 (VCA) problems are occurring. Once those have been dealt with, the status information should be updated properly.

Action 5 Disable the MSP node that the Bus Controller card is on and rerun diagnostics on the card. If the problem persists, replace the card.

Action 6 The most likely cause is a problem with the External T1 source setup. Check that the External T1 setup and connections are correct. If the problem persists, disable the active MSP node to do an MSP switchover. If the problem does not reoccur with this setup, run diagnostics on the original Bus Controller card (on the current backup MSP node) and try replacing that card. If the problem persists, call your support organization.

Action 7 The most likely cause is a problem with the clock source the Bus Controller on the Backup MSP node is trying to track. If the External T1 clocking is enabled, check that the External T1 setup and connections are correct. If the problem persists, disable the backup MSP and run diagnostics on the Bus Controller card. If there are problems, replace the card. If the problem persists, call your support organization.

Action 8 This problem may occur very intermittently and is not considered serious. However, if it persists, it is a warning that problems may arise in the future. Look at solutions in SEERs 6417 and 6418 for possible appropriate action.

Action 9 Contact your Nortel Networks support organization.

Debugger (DB)

Introduction

The Debugger is a tool used by designers to debug programs. The Debugger is also used by craftspeople (RSC) to find out about system resources, such as available memory. This program can also be used to change the contents of memory and to terminate programs.

Debugger output is displayed at the terminal. Because this is not a permanent record, Debugger output is reformatted into Class 65 SEERs which are sent to the printer. Each line of Debugger traceback is a separate SEER.

A Class 65 SEER usually contains a trace sequence number and trace output.

Reports

6502 Minor Error Action 1

Cause: Improper memory area was accessed by software, causing ESBC sanity timer to become activated.

Impact: Possible performance degradation.

6503 Info Admin Action 2

Cause: System has accidentally been left in debugging state. This could occur when the system is being investigated by the support organization.

Impact: If the message “Timeout: Exit” is in the SEER, the system has exited the debugging state and there is no impact. If the message “Warning: No Debugger input” is in the SEER, the system remains in the debugging state and may reboot at any time.

6599 Minor Error Action 3

Cause: Debugger traceback output. The number followed by the word DBGTRACE identifies the trace sequence number.

Impact: If the program is responsible for a voice session, that voice session will be abruptly terminated. If the program is a multiserver, that service will be temporarily down. If the program is essential to a node’s operation, the node will be temporarily down.

Actions

Action 1 This problem should be reported in conjunction with any other problem that warrants Nortel Networks support organization help. No action is required unless other problems are identified.

Action 2 If the message “Timeout: Exit” is in the SEER, no action is required. If the message “Warning: No Debugger input” is in the SEER, contact your Nortel Networks support organization.

Action 3 Collect the trace identification information and contact your Nortel Networks support organization.

Disk Manager (DM)

Introduction

The disk manager is the operating system component that maintains disk configuration. It puts out SEERs to report errors encountered during disk accesses. If disk shadowing (also known as disk mirroring) is installed, the disk manager performs related maintenance operations and puts out SEERs to log these actions.

DM SEERs identify disks by node number and SCSI ID. On non-SPM platforms such as EC, Classic, and Card Option, there is only one SCSI bus; SCSI IDs run from 0 to 7. There are two buses on SPMs; SCSI IDs on bus 0 run from 0 to 7, those on bus 1 run from 8 to 15.

All numbers are given in decimal.

The following Maintenance Procedures NTPs contain disk replacement procedures for the various platforms:

- NTP 297-7001-502 *SPM Maintenance Guide*
- NTP 555-7041-250 *Modular Option Installation and Maintenance Guide*
- NTP 555-7051-250 *Modular Option GP Installation and Maintenance Guide*
- NTP 555-7061-250 *Modular Option EC Installation and Maintenance Guide*
- NTP 555-7071-210 Card *Option Installation and Maintenance Guide*
- NTP 555-7081-250 *Option 11 EC Installation and Maintenance Guide*

Reports

6600 Info Admin No Action

Cause: Syncing is the disk shadowing operation to bring a new disk on-line. This SEER logs the beginning of a sync operation.

Impact: None

6601 Info Admin No Action

Cause: This SEER logs the completion of a sync operation.

Impact: None

6602 Case 1. Major Error Action 1
Case 2. Info Admin No Action

Cause: One of the disks in a shadowed disk pair has gone down.

1. The disk is taken down by the system. (This report follows a SEER 6603/6604.)
2. The disk is taken down by a utility.

Impact: Only a single copy of the data in the shadowed pair is now available. A failure in the surviving disk will disrupt service. Read throughput is also halved.

6603 Major Error Action 2

Cause: A disk drive has reported an exception during a file system disk access. The sense key encodes the type of exception, and is standard across all disk drives. The error code gives additional information about the exact cause of the error. A block number may also be present. See Appendix A for a complete list of SCSI device sense keys and error codes.

Impact: Medium and hardware errors disrupt service on systems without disk shadowing.

6604 Major Error Action 3

Cause: The SCSI device driver has reported an exception during a file system disk access. The driver error encodes the type of exception.

Impact: Disrupts service on systems without disk shadowing.

6605 Minor Error Action 2

Cause: A disk drive has reported an exception during a disk manager disk access. The sense key encodes the type of exception, and is standard across all disk drives. The error code gives additional information about the exact cause of the error. A block number may also be present. See Appendix A for a complete list of SCSI device sense keys and error codes.

Impact: Medium and hardware errors disrupt service on systems without disk shadowing.

6606 Minor Error Action 3

Cause: The SCSI device driver has reported an exception during a disk manager disk access. The driver error encodes the type of exception.

Impact: Disrupts service on systems without disk shadowing.

6607 Major Error Action 4

Cause: The disk manager cannot access a member of disk pair during initialization.

Impact: Only a single copy of the data in the mirrored pair is now available. A failure in the surviving disk will disrupt service. Read throughput is also halved.

6608 Major Error Action 5

Cause: The disk manager cannot determine which member of a disk pair is more current.

Impact: The disk manager arbitrarily picks the first member. This may or may not be the correct choice.

6609 Major Error Action 6

Cause: The disk manager finds that a disk pair is not in sync during initialization.

This SEER can appear if a disk goes down and its node is subsequently rebooted with the disk still in place.

Impact: Only a single copy of the data in the mirrored pair is now available. A failure in the surviving disk will disrupt service. Read throughput is also halved.

6610 Major Error Action 7

Cause: A disk pair has just been synced on the partner node of the node producing the SEER. However, the disk manager on the latter node is unable to independently detect this state.

Impact: Data corruption may occur if the node is rebooted.

6611 Info Admin Action 8

Cause: If a member of a synced disk pair goes down and is not brought back up, this SEER will come out every hour as a reminder.

Impact: Only a single copy of the data in the mirrored pair is now available. A failure in the surviving disk will disrupt service. Read throughput is also halved.

6650 Minor Error Action 9

Cause: A disk sync invoked from the MMI has failed. This SEER contains a return code that indicates where the sync failed. Possible values are as follows:

6700	out of memory
6710	cannot determine amount to sync
6711	cannot initialize destination disk
6712	cannot enter sync mode
6713	sync primitive failure
6714	cannot leave sync mode

Impact: Cannot sync the disk pair.

Actions

Action 1 Ensure the shadowed disk is operational. If this SEER appears during normal operation, replace the failed disk and sync it from the survivor. If this SEER appears during disk pack or during 68K transition module replacement, continue to follow the replacement procedure.

If you manually disabled the disk, manually enable it.

Action 2 Disk access error. Use the following table to select the appropriate action.

Sense key	Meaning	Action
1	Recovered error	A large number of recovered errors indicate that the device should be replaced.
2	Not ready	The disk has not been spun up yet. This sense key may also be returned if the SCSI controller on the CPU card is faulty. If the problem persists you should replace the CPU card.
3	Medium error	Replace disk
4	Hardware error	Replace disk
5	Illegal request	Possible software problem; contact Nortel Networks support organization.
6	Unit attention	Look for termination/cabling problems; if none are found contact Nortel Networks support organization.
7	Write protected	Remove write protect jumper from disk.

Action 3 SCSI driver error

Driver error	Meaning
129	selection time-out
130	unexpected disconnect
131	bus reset
132	read parity error
133	time-out
255	driver queue full (SPM only)

This SEER almost always indicates some hardware failure along the SCSI datapath, which consists of the 68K board, the 68K board transition module, SCSI cabling, disk/tape drive, and disk/tape power converter. Look for and clear hardware faults in SCSI subsystem.

Action 4 Check SCSI subsystem. Look for a preceding 6605 or 6606 SEER and act accordingly. This SEER almost always indicates some hardware failure along the SCSI datapath, which consists of the 68K board, the 68K board transition module (SPM only), SCSI

cabling, disk/tape drive, and disk/tape power converter. Look for and clear hardware fault in SCSI subsystem.

Action 5 Sync correct disk. This SEER can come out if a node boots up with a pair of unsynchronized disks during a disk replacement procedure. Sync from the correct disk and reboot the node.

Action 6 Check earlier class 66 SEERs to find out why the disk was off-line.

Action 7 Check for hardware faults, especially cabling, along the SCSI bus.

Action 8 Use the MMI to bring the disk back up.

Action 9 Disk sync failure. Look for and clear hardware fault in SCSI subsystem.

If return code 6700 occurs when syncing online, try the following:

- unload unnecessary utilities
- use a smaller transfer size

Return code 6710 often has an associated 6605/6606 SEER. Follow the actions specified for these SEERs.

Return code 6711 - check that the destination disk is writable:

From scsi_util enter

- select *x*
- copy *x x* 0 0where *x* is the SCSI ID identified in the SEER

Check that the disk is jumpered correctly.

Return code 6712—Call Nortel Networks support organization.

Return code 6713 often has an associated 6605/6606 SEER. Certain early vintages of 3.5-inch disks cause return code 6713 when synced with sufficiently large transfer sizes. Examples are DSP3105 Rls T370 and ST11200N Rls 8240, 8334

Check that the SCSI bus is correctly terminated.

Check that the disks are at least at the minimum vintage.

Return code 6714—call Nortel Networks support organization.

Card Option ESDI Emulation Handler (DEEH)

Introduction

The David ESDI Emulation Handler (DEEH) software was created to emulate ESDI functionality so that the Meridian Mail system is able to work with Card Option. The functions are provided by communicating with Meridian 1 through two data channels. The first channel is the AML, which offers control and monitors the status of phone lines coming to the Meridian Mail. The second channel is for the man-machine interface (MMI), which allows the administration of Meridian Mail.

Reports

6800 Info Error Action 1

Cause: An invalid command was received from the Meridian 1 that is not supported by Meridian Mail.

Impact: The impact is dependent on the Meridian 1 command. Any Meridian 1 command that is not supported by Meridian Mail will be detected early in the development cycle; therefore, the impact should be minimal.

6801 Info Error Action 1

Cause: The AML task did not pick up an AML message in time for proper execution.

Impact: The user hears a ring-connect silence when trying to access Meridian Mail.

6802 Info Error Action 1

Cause: The receiving queue for messages from Meridian 1 is full.

Impact: There is up to a 3-second delay in processing the AML messages, that is, answering then hanging up.

6803 Info Error Action 1

Cause: An unknown packet was received from the Meridian 1 that is not supported by Meridian Mail. The text string states “Unknown packet received” followed by the packet ordinal number.

Impact: The impact depends on the type of Meridian 1 packet received. If a Meridian 1 packet is used frequently, the error will be caught early in the development cycle; therefore, the impact should be minimal.

6804 Info Error Action 2

Cause: The Meridian 1 part of Card Option did not respond to transmissions from the Meridian Mail.

Impact: If the Meridian 1 is running, then a ring-no-answer or a ring-connect-silence is heard when accessing Meridian Mail.

6805 Info Error No Action

Cause: The AML task is ready to start operation.

Impact: The system can start taking calls.

6806 Info Error Action 2

Cause: The AML link is not established. This SEER may occur under normal operations.

Impact: You will hear ring-no-answer.

6807 Info Error Action 2

Cause: Meridian 1 is not accepting Meridian Mail AML packet transmissions.

Impact: You will hear ring-no-answer.

Actions

Action 1 If the error persists, report the incident to Nortel's support organization.

Action 2 Check the Meridian 1 for any error messages. If there are no Meridian 1 error messages, and if ring-no-answer or ring-connect-silence persists, reboot Card Option to correct the system. If the problem still persists, arrange to have the 68-kbyte card of the Meridian Mail replaced.

Hospitality Administration Server (HAS)

Introduction

Hospitality is a Meridian Mail (MM) and Meridian 1 feature which is provided for use by Hotel/Motel properties to provide staff and guests with voice messaging capabilities. Staff are equipped with full featured MM. Guests are provided with a simplified user interface with specific options to make message retrieval as simple as possible. The Hospitality package also provides a data link to a hotel's Property Management System. This link allows integration of the Hotel's front desk consoles with the MM system. On MM, the Hospitality component includes three new pieces of software: the Hospitality Administration Server (HAS), the GAC, and PLH.

The HAS executes the commands passed to it from the Hotel's Property Management System (PMS) and the MM system's Guest Administration Consoles (GAC). These commands include guest Check In, guest Check Out, guest Copy MailBox, guest ReCheckIn, setting of guest phone Message Waiting Indicators, querying of guest mail boxes, management of the Post Check Out message retrieval facilities, and so on.

When HAS identifies problems, it issues the SEER messages described in this chapter. In some places, more than one message have been grouped under one SEER identification code. In these cases, the codes are used as general guides to what is taking place in the HAS. The most important information can be retrieved from the text of the SEER with the result returned as SEER return codes: these are described below.

SEER class 70 (HAS) return codes

00	Everything is OK
01	Tasking error occurred
02	Invalid TO DN
03	Invalid FROM DN
04	Invalid command received
05	Used on recheckin if no room is found
06	Error changing guest name
07	Error processing a check-in command
08	Error processing a checkout
09	Error while processing a recheck-in
10	Error while trying to copy a mailbox
11	Error getting voice counts
12	Error setting the MWI on
13	Error setting the MWI off
14	Error accessing the post-checkout cabinets
15	Error while rebuilding the PCORList
16	Mailbox specified is not a guest mailbox
17	PCO entry is currently locked
18	Hospitality option is turned off in organization profile
19	Room status is not set
20	DR returns an error on the file system
21	Room is already occupied on check-in
22	The room is vacant
23	General error; system is busy, and you should try again
24	COPY command has the same DNs/mailboxes

Reports

7001 Depends on context Action 1

Cause: An error was detected while the Hospitality software was initializing.

Impact: In many cases the Hospitality component will provide adequate defaults. If certain directories cannot be found, or files cannot be opened, or subprocesses cannot start, then the Hospitality component may not be functional.

7002 Info System Action 2

Cause: HAS received a command from the PRM task indicating that HAS should kill itself if it is not needed, or it should be shut down.

Impact: If it is killed, no cleanup is attempted. If it is shut down, all files are closed.

7003 Minor Admin Action 3

Cause: An internal queue used to store commands from the PMS is full. The commands in the queue are waiting to be processed.

Impact: The real waiting time that the PMS is experiencing will be impacted. It will slow down to wait for the HAS, to free up space in the queue.

7004 Minor Error Action 4

Cause: The HAS failed to allocate its memory segment. This is a critical operation. The system may be out of memory.

Impact: The HAS will not be functional without this memory segment.

7005 Major Error Action 5

Cause: The HAS could not get the required information from the customer profile.

Impact: The HAS is lacking required runtime parameters. The HAS will not be functional.

7006 Minor Error Action 6

Cause: HAS failed to open the Networking Database. It is used internally to translate cross-site DNs.

Impact: The HAS will not start if this file cannot be accessed.

7007 Minor Error Action 7

Cause: The HAS is trying to register that it is running with the name server, so that other tasks can locate and call it.

Impact: The HAS will not start if it cannot register with the name server. If HAS did register, none of the other tasks could locate it to call it. Make sure that all components are in the startlist.

7008 Info Debug No Action

Cause: The HAS succeeded in its attempt to start, and is indicating that it is ready to process commands.

Impact: The HAS component is started and ready.

7009 Depends on context Action 7

Cause: Some type of tasking error has occurred. Usually this will indicate a failure in intertask communication.

Impact: If a failure occurs while HAS is initializing, then HAS will not be functional. If it occurs at almost any other time, the communication will be retried.

7010 Major Error Action 8

Cause: The Hospitality feature has not been enabled on the system or on the customer specified.

Impact: The HAS component will not be functional.

7011 Minor Error Action 9

Cause: Most likely, the hospitality feature was not installed properly.

Impact: The HAS failed to read the latest Customer Profile information for Hospitality.

7012 Minor Error Action 10

Cause: A tasking error occurred while trying to send to HAS Command Subtask.

Impact: A command entered from the GAC, or PMS may fail if this recurs several times, causing internal queues to overflow.

7013 Minor Error No Action

Cause: If the Resync mode is turned on, then this SEER will be printed once hourly as a reminder that the Resync mode is on.

Impact: None

7020 Depends on context Action 11

Cause: An error was encountered while another task was trying to access HAS.

Impact: Often the information the task was requesting from the HAS will not be returned, or the command the task was asking HAS to perform will not be executed. Actual impacts will vary depending upon how the tasks handled the returned results.

7030 Depends on context Case 1 No Action
Case 2 Action 12

Cause:
1. Checking in a guest to a room that was recently checked out (and is being processed by Meridian Mail). Could not find the personal profile for the checked out room to update.
2. A Room Checkin command is being processed and an error has occurred.

Impact:
1. None
2. Depends on SEER text.

7031 Depends on context Action 12

Cause: A Room CheckOut command is being processed, and an error has been encountered.

Impact: Depends on SEER texts

7032 Depends on context Action 12

Cause: A Room Name Change command is being processed, and an error has been encountered.

Impact: Depends on SEER texts

7035 Info Debug Action 13

Cause: The HAS lost some HEAP memory. Before and after executing a command, a check is done to make sure the amount of memory is the same.

Impact: If the problem persists, the HAS will run out of memory to do common operations like opening files.

7036 Depends on context Action 14

Cause: While a Room Re-Checkin command has been processed, an error has been encountered.

Impact: Depends on SEER texts

7037 Depends on context Action 12

Cause: A Copy Mailbox command is being processed and an error has been encountered.

Impact: Depends on SEER texts

7038 Depends on context Action 12

Cause: A Copy Mailbox Messages command is being processed, and an error has been encountered.

Impact: Depends on SEER texts

7039 Depends on context Action 12

Cause: A turned on Message Waiting Indicator command is being processed, and an error has been encountered.

Impact: Depends on SEER texts

7040 Depends on context Action 12

Cause: A turned off Message Waiting Indicator command is being processed and an error has been encountered.

Impact: Depends on SEER texts.

7041 Info Error Action 15

Cause: The HAS is in the process of shutting down in a controlled manner. An error was encountered while attempting to do a particular step of the shutdown.

Impact: The HAS is shut down; normally the failure will not impact the HAS when it restarts.

7042 Depends on context Action 12

Cause: A Query Voice Counts command is being processed, and an error has been encountered.

Impact: Depends on SEER texts

7043 Minor Admin Action 16

Cause: An invalid command was given to the HAS to execute. This command was most likely generated from the PMS system.

Impact: The HAS does not process the command.

7044 Major Error Action 4

Cause: The HAS failed to allocate its memory segment. This is a critical operation. The system may be out of memory.

Impact: The HAS will not be functional without this memory segment.

7045 Depends on context Action 17

Cause: A file was searched for and was not found.

Impact: The impact varies. For example, an information SEER could be printed, or the HAS will not be functional since key files cannot be accessed.

7046 Minor Error Action 18

Cause: An attempt to create a file failed.

Impact: The HAS will either shut down or will not be functional, depending on the context.

7047 Info Error Action 19

Cause: An attempt was made to write to an internal file, and the write failed.

Impact: The impact is not critical: a record is either being cleared or updated. In either case, the software will survive.

7048 Info Action 20

Cause: An attempt was made to commit an internal file, and the commit failed.

Impact: The impact is not critical. While the system is still up, the file will reside in memory. If the file is not committed and the system goes down, then there may be a problem depending on the file that failed to commit, and depending on the file's contents at that time.

7049 Info Error Action 20

Cause: An attempt was made to add a new file to a cabinet, and the operation failed.

Impact: The impact depends on the situation. Normally it will be fairly severe, and will be accompanied by another SEER. Most situations should be recoverable.

7050 Info Error Action 20

Cause: An attempt was made to close an open cabinet, and the operation failed.

Impact: The impact depends on the situation, and will normally not be severe. A loss of HEAP memory will be associated with this; if the problem is repeated, the loss of memory may affect other operations.

7051 Info Minor Action 20

Cause: An attempt was made to open a cabinet, and the operation failed.

Impact: The impact depends on the situation; it will normally not be severe because most cabinets are open to read. If the cabinet is open for a write function, then the write operation will fail.

7052 Major Error Action 21

Cause: An attempt was made to open the system profile, and the operation failed.

Impact: The PMS or GAC command will not be processed.

7053 Info Admin Action 22

Cause: A search of the DR database failed. The key information in the lookup key was not found. This will happen typically if a checkin/out command is issued on a mailbox that does not exist, or has been deleted.

Impact: The command will fail. A message will be directed at the user that the command failed. Often, more than one SEER will be generated.

7054 Info Error Action 23

Cause: A search of the DR database failed. An invalid result was returned.

Impact: The command will fail. A message will be directed at the user that the command failed. Often, more than one SEER will be generated.

7055 Info Error Action 24

Cause: An attempt was made to read from an internal file, and the read failed.

Impact: The impact may be critical. A record is not being read, and this record could contain critical information like a CheckIn or CheckOut. An alarm should be raised.

7056 Info Error Action 25

Cause: An attempt was made to access the HAS Recovery file. The operation failed.

Impact: The Recovery file is not required, so defaults will be used.

7059 Info Error Action 12

Cause: A Language Change command is being processed and an error has been encountered.

Impact: Depends on SEER texts

7060 Minor Admin Action 26

Cause: An alarm could not be activated on the Front Desk Console, alerting the staff of a problem.

Impact: A command likely has failed. The alarm was being used to alert the staff of the problem so that the command could be retried.

7061 Minor Error Action 27

Cause: An attempt was made to convert a mailbox number to a networking address; it failed.

Impact: Networking is not used widely; therefore, there is little impact to most users.

7062 Minor Admin Action 28

Cause: HAS failed to send information to the Meridian 1.

Impact: If more than one DN is assigned per mailbox, then this SEER will most likely appear in groups. The Meridian 1 is not receiving updates. The impact is normally not severe, but should be corrected.

7063 Info Admin Action 29

Cause: A multimatch was found when the HAS did a lookup in the Corporate database.

Impact: This situation is allowed to exist. If it is not supposed to, however, then the same DN may have been assigned to two different mailboxes. This may lead to complications involving the MWI, and it should be fixed.

7064 Major Error Action 30

Cause: The hash table is full.

Impact: The DN cannot be hashed and the command will not be executed.

7070 Depends on context Action 31

Cause: A Read Audit is running, and an error has been encountered.

Impact: Depends on SEER texts

7071 Depends on context Action 31

Cause: An UnRead Audit is running and an error has been encountered.

Impact: Depends on SEER texts

7072 Info Error Action 32

Cause: HAS failed to open a personal cabinet in a Post CheckOut cabinet.

Impact: Messages will not be removed from the cabinet. If the problem persists in many mailboxes, the disk will fill.

7073 Info Error Action 33

Cause: HAS failed to tidy a personal cabinet in Post CheckOut.

Impact: Messages will not be removed from the cabinet. If the problem persists in many mailboxes, the disk will fill.

7074 Info Error Action 32

Cause: HAS failed to remove a personal cabinet in Post CheckOut.

Impact: An expired mailbox will not be deleted from the PCO. If the problem persists in many mailboxes, the disk will fill.

7080 Minor Error Action 34

Cause: HAS tried to find an FID for a PCOCAB, given a volume ID. It failed to find the file PCOCAB on one of the volumes listed in the Startlist parameters to HAS.

Impact: As long as the volume listed was incorrect, and all of the other volumes listed in the Startlist are the correct and complete list of volumes, then there should be no impact. If, however, the volume listed is incorrect and was supposed to be another volume, then there will be problems.

7081 Major Error Action 35

Cause: HAS could not access the MHVS directory, or could not find an MHVS directory on the System Volume.

Impact: If a MHVS directory does not exist or cannot be accessed, then the HAS will not be functional.

7082 Info Error Action 36

Cause: HAS could not open the PCORLIST file. It exists, but for some reason could not be accessed.

Impact: The old PCORLIST file will be renamed by appending the date, and a new PCORLIST will be created from the cabinets in the PCOCAB cabinets.

7083 Minor Error Action 37

Cause: HAS tried to read the PCORLIST and failed.

Impact: PCO lookups may fail when the PCO feature is accessed via a telephone, or via the GAC. Audits may also fail.

7084 Info Error Action 19

Cause: HAS attempted to do a pattern matching scan on a file, and the scan returned a bad result.

Impact: Depends on the situation

7085 Info Error Action 19

Cause: HAS failed to create a record for the specified file.

Impact: The impact depends on the situation. The HAS should take the appropriate action.

7086 Minor Error Action 38

Cause: An attempt was made to update the corporate directory database (DR), and the update failed.

Impact: It could be severe. This will mean that the results of a command may not be stored in the system, that is, a name change may not have the new name in the data base. An alarm will be raised at the Guest Administration Console.

7090 Minor Error Action 39

Cause: An attempt was made to open the corporate directory (DR), and it failed.

Impact: This is done at initialization time, and the HAS will fail to be functional.

7091 Info Debug Action 19

Cause: An internal table lookup was attempted. A match was expected but not found using the sorted lookup. Therefore, a linear lookup is being attempted.

Impact: If this happens frequently, there may be some performance impacts.

7092 Info Admin Action 40

Cause: When the HAS restarts, it checks for an existing DRQ file. This file contains the commands while they are waiting to be processed. If any old commands exist, they will be processed first.

Impact: New commands will not be processed until the old ones have been processed.

7093 Depends on context Action 41

Cause: While attempting to process a corporate directory (DR) update, a problem was encountered.

Impact: It varies depending on the information in the DR that was being updated.

7094 Info Admin Action 42

Cause: When the HAS starts up, it will scan the Post Check Out mailboxes for obsolete ones if there is no PCORLIST. Any obsolete mailboxes will be deleted and a new PCORLIST will be created.

Impact: It will take significantly longer to start the HAS if it is required to rebuild the PCORLIST.

7095 Minor Error Action 43

Cause: An audit has finished running, and the PCO task is called to clear the PCORLIST of all obsolete entries. For some reason it cannot update the PCORLIST.

Impact: The PCROLIST will have some obsolete entries, and should not impact the Hospitality user.

7096 Depends on context Action 44

Cause: While creating a PCORLIST, an error was encountered. It most likely occurred because of an internal error.

Impact: The PCORLIST may have missed a volume while recreating.

7097 Major Error Action 45

Cause: The conversion of a Hospitality system to a new release is failing.

Impact: The Conversion has failed for some reason. The system must pass the conversion to bring it up.

7099 Info Debug Action 46

Cause: Cannot get OM Data.

Impact: None

Actions

Action 1 If the defaults are not desirable or the software will not be functional, then contact your Nortel Networks support organization to update your Startlist.

Action 2 Some external event normally causes PRM to request a kill or shutdown. Using the SEERs, attempt to determine what caused the initial problem and rectify it.

Action 3 One way to speed up the processing of commands is by starting another command processing task. There can be up to four command processing tasks that are controlled by a parameter on the Startlist entry for HAS. Contact your Nortel Networks support organization if the problem persists.

Action 4 Check to see if any extra programs are running on the system, and shut them down if they are not needed. There may not be enough memory. A lower level component may have failed. Check the SEERs and contact your Nortel Networks support organization.

Action 5 Verify that the system is installed as a Hospitality system. Collect SEERs and contact your Nortel Networks support organization.

Action 6 Collect SEERs and contact your Nortel Networks support organization.

Action 7 Collect SEERs, and contact your Nortel Networks support organization.

Action 8 Collect SEERs and contact your Nortel Networks support organization to enable the Hospitality feature if you wish to use this feature.

Action 9 Change the Hospitality profile again and save it. If the problem persists, collect the SEERs and contact your Nortel Networks support organization.

Action 10 If the problem persists, then call Nortel's support organization.

Action 11 Retry the command that was performed. If the problem persists, collect SEERs and contact your Nortel Networks support organization.

Action 12 If the problem persists, collect SEERs and contact your Nortel Networks support organization.

Action 13 If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 14 If problems persist, then collect the SEERs and contact your Nortel Networks support organization.

Action 15 If SEERs appear upon restart of the HAS, ensure you look at this SEER and its related SEERs for a possible cause. If problems persist, then collect the SEERs and contact your Nortel Networks support organization.

Action 16 If problems persist, then collect the SEERs and contact your Nortel Networks support organization.

Action 17 If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 18 Collect the SEERs, and contact your Nortel Networks support organization.

Action 19 If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 20 If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 21 Check the return code from the open operation. If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 22 Check the room DN/Number entered, and see if there is a mailbox for it. If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 23 The command should be retried, possibly with different parameters. If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 24 Retry the command. If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 25 If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 26 Collect the SEERs and contact your Nortel Networks support organization.

Action 27 If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 28 Check the PMSI link to the Meridian 1. The link should be OK; it can be tested using the TEST_LINKS softkey from the GAC. Try again later.

Action 29 Look up the two mailboxes using User Administration and correct them.

Action 30 Reboot the system. If the problem persists, contact your Nortel Networks support organization.

Action 31 The HAS should recover. The system can handle several failed audits. If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 32 If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 33 If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 34 Contact your Nortel Networks support organization.

Action 35 Contact your Nortel Networks support organization.

Action 36 If this happens each time the system is restarted, then contact your Nortel Networks support organization.

Action 37 If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 38 The command that was last done on the mailbox indicated that it should be done again. If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 39 Examine the SEERs to determine the cause of the problem. If the problem cannot be determined, collect the SEERs and contact your Nortel Networks support organization.

Action 40 If this action is not desired, then before shutting down the system, disable the PMS link and let the HAS process all the commands.

Action 41 If the information in the SEER can be traced to a particular command, then retry the command. If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 42 None.

Action 43 If problems persist, collect the SEERs and contact your Nortel Networks support organization.

Action 44 If there seems to be some impact to the use of the system, contact your Nortel Networks support organization.

Action 45 Retry the Conversion.

Action 46 This only happens during Nortel’s support activity.

PMS Link Handler (PLH)

Introduction

Class 71 SEERs are caused by problems on the link between Meridian Mail, the PMS (the Hotel's Property Management System) and the Meridian 1.

Impact of PLH errors

PLH errors indicate communication breakdown between Meridian Mail, the PMS and the Meridian 1. When a PLH error occurs the links can be left unsynchronized. One result of this might be that Meridian Mail will know when a new guest checks in but the Meridian 1 will not. To rectify these problems, generally a database swap must be initiated on the PMS to update the systems.

Content of Class 71 SEERs

A Class 71 SEER usually contains

- a text description of the error
- a low level return code or message number

Reports

7101 Critical Error Action 1

Cause: A critical error was encountered during initialization. The message text and any return codes indicate the cause.

Impact: PLH program did not load.

7102 Info Admin Action 2

Cause: The PLH can't receive from or transmit to the PMS or Meridian 1 (the SEER text will identify which side has the problem).

Impact: No communications between the PMS and Meridian Mail and the Meridian 1. The systems will get out of sync.

7103 Info Admin Action 2

Cause: The PLH can't transmit to the Meridian 1/PMS as indicated by the SEER.

Impact: A slow down of communications between Meridian Mail and the Meridian 1 or PMS. No apparent degradation on the other side. The Meridian 1 and PMS will get out of sync.

7104 Info Admin Action 3

Cause: Communication is restored on the side specified in the SEER text.

Impact: None.

7105 Info Admin Action 3

Cause: This is a diagnostic message indicating that the PLH can now receive from the PMS or Meridian 1 as indicated in the SEER text.

Impact: None.

7114 Error Admin Action 4

Cause: The receive buffer is full for the link side indicated.

Impact: Lost messages due to insufficient internal buffers. This problem should never occur.

7120 Minor Admin Action 4

Cause: The receive queue is full for the side indicated.

Impact: Lost messages due to insufficient internal buffers. This problem should never occur.

7122 Info Admin Action 5

Cause: Tasking errors detected.

Impact: Depends on where and when the problem occurred.

7123 Major Admin Action 6

Cause: PLH isn't running.

Impact: Meridian Mail is out of the loop. Should be put in bypass mode by the HAS.

7125 Major Admin Action 7

Cause: RSM isn't there.

Impact: No communication between Meridian Mail and Meridian 1 or PMS.

7128 Major Admin Action 8

Cause: A SEND to the HAS failed or the HAS task cannot be located.

Impact: Meridian Mail and the PMS might get out of sync.

7129 Minor Error Action 9

Cause: Bad command code from the HAS.

Impact: Depends on the command issued (probably minor). This problem should never occur.

7130 Critical Error Action 10

Cause: Failed to set the bypass switch.

Impact: The switch should be set to bypass but it is not.

7132 Minor Error Action 11

Cause: Failed to raise an alarm on the Guest Administration Console (GAC).

Impact: The attendants are not aware of an error condition.

7134 Minor Admin Action 12

Cause: Too many consecutive NAKS (Negative Acknowledgements) finally resulted in substitution of an ACK (acknowledgement).

Impact: A message is lost.

7140 Minor Admin Action 13

Cause: No end of transmission character was received before the receive buffer overflowed or timed out.

Impact: A bad message was received it will be discarded when the next one arrives.

7141 Minor Admin Action 13

Cause: A STX character was received before the ETX character of the previous message was received.

Impact: A bad message will be discarded.

7143 Info Admin No Action

Cause: A time out has occurred between the MM and PMS. The MM will adjust its timeout parameters to be longer. This may also occur when MM comes up.

Impact: It will take longer to timeout on the PMS-MM link.

7198 Minor Error Action 14

Cause: Software error.

Impact: The PLH (PMS Link Handler) is restarted. A message from the PMS may be lost.

7199 Critical Error Action 15

Cause: The MM is shutting down.

Impact: The system will restart.

Actions

Action 1

1. RSM card problems—check second return code for more information.
2. Task related errors—registration, buffers, and so on, contact ETAS
3. Org Profile errors—reinstall org profile and try again
4. Hardware database errors—check database to make sure it was set up correctly
5. Major alarm errors—if it is not reset (SEER will indicate if it is), it should be before proceeding
6. UART error - cannot initialize the UART for transmitting or receiving PMSI data.
7. Cannot enable data communication interrupts.
8. A problem occurred during the initialization of PLH.

Action 2 Make sure that all the cables are plugged in. If the cables are properly connected, then the PMS software must be checked and viewed, and your Nortel Networks support organization must be called to check the links. A database swap should be initiated after the problem is resolved.

Action 3 None. If the outage was long, initiate a database swap.

Action 4 If the system is running correctly the queue should be emptied and the next message should be okay, it has a self-correcting capability. If this SEER continues to be issued, call your Nortel Networks support organization so that they can collect data and report it to the development organization.

Action 5 Call your Nortel Networks support organization.

Action 6 Try rebooting the system and call your Nortel Networks support organization if that fails. Initiate a database swap when the links are back up.

Action 7 Initiate a database swap when the links are back up.

Action 8 Initiate a database swap when the links are back up if the outage was known to be of short duration a swap may not be required.

Action 9 If the problem persists, call your Nortel Networks support organization so that they can collect information and report it to the development group.

Action 10 Set the bypass switch manually.

Action 11 Notify hotel attendants of the failed alarm. The problem may be a checkin failure, or the PMS link is down. The GAC software may not be running; if that is the case, it should be restarted If the problem persists, call your Nortel Networks support organization.

Action 12 This SEER always occurs in a pair. The first one indicates the cause of sending a NAK. Initiate a database swap if many SEERS have occurred. If only one SEER occurred, review the message text in the seer, and if it is not serious, a database swap is not required.

Action 13 The message should be transmitted again. If this occurs often then call your Nortel Networks support group to check the PMSI links.

Action 14 Call your Nortel Networks support organization in order to escalate the problem to the Nortel development organization.

Action 15 Let your Nortel Networks support organization know. The system should restart.

Front Desk Console (FD)

Introduction

Class 72 SEERs affect two components:

- Guest Administration Console (GAC)
- Hospitality Administration Option on the System Administration Console

The Guest Administration Console is used for a number of tasks related to guest mailbox administration, for example, manual check in and out and mailbox status reviews. The Hospitality Administration option on the System Administration Console is used to set the Hospitality Specific Parameters of the organization, for example, the vacant room extension number (revert DN).

Impact of Front Desk Console errors

The effect of these errors on the Guest Administration Console can range from minimal to serious. For example, if one of these errors occurs, guests will usually still be able to send and receive voice messages, but the check in and out functions performed from the console will be unavailable.

Content of Class 72 SEERs

A class 72 SEER may contain

- a text message
- a lower level return code, if relevant

Reports

7220 Info System No Action

Cause: Diagnostic information SEER

Impact: None

7221 Info Debug Action 1

Cause: A unexpected system inconsistency was detected, perhaps in a system or customer profile.

Impact: This may vary according to the situation, but usually there is no impact. This problem should not occur.

7224 Major Error Action 2

Cause: A tasking error occurred.

Impact: Unread message notifications may not be displayed. OM statistics will not be collected and there will be no alarms on the Guest Administration Console.

7225 Major Error Action 3

Cause: The Guest Administration Console failed to register with the Name Server on start up.

Impact: The program will kill itself and restart.

7226 Info Debug Action 4

Cause: The FD_Server Task failed to initiate.

Impact: There will be no OM Measurements, alarms, or unread message notifications.

7227 Critical Error Action 3

Cause: The PRM is not available.

Impact: The Guest Administration Console will not function.

7228 Major Error Action 5

Cause: FD_Procs failed to locate a Guest Administration Console program.

Impact: OM measurements, alarms or unread message notifications may fail.

7230 Minor Error Action 6

Cause: There are communication problems with HAS.

Impact: Incorrect messages will be displayed on the Guest Administration Console, or a message indicating that the system is busy will appear, or both will occur.

7231 Minor Error Action 6

Cause: There are communication problems with HAS or the HAS PCO (Post Check Out) list.

Impact: You may not be able to view the PCO list.

7232 Info Errors Action 7

Cause: Communication problems with PLH

Impact: Improper system status will be displayed at the Guest and System Administration Consoles.

7233 Major Error No Action

Cause: Communication problems with the Cabinet Manager

Impact: An incorrect number of messages for the guest user will be displayed.

7234 Info Debug Action 8

Cause: The system is timed out when trying to retrieve Guest Administration Console OM information.

Impact: Loss of OM data for this interval

7235 Info Debug Action 9

Cause: Startlist parameters for the Guest Administration Console are incorrect.

Impact: Some components of the Guest Administration Console are inoperative.

7236 Info Debug Action 9

Cause: Startlist parameters for the Guest Administration Console are incorrect.

Impact: Some components of the Guest Administration Console are inoperative.

7237 Info Debug Action 10

Cause: The HEAP was lost.

Impact: There may be insufficient HEAP space to carry out further Guest Administration Console operations.

7238 Major Error Action 11

Cause: An error occurred while an attempt was made to run the tool to check out all guests.

Impact: The tool will stop.

7239 Minor Error Action 12

Cause: An error has occurred while an attempt was made to open the customer profile to access the customer hospitality greetings.

Impact: Greetings will not be accessible, defaults should be played.

7240 Minor Error Action 13

Cause: The FD Task failed to change the access mode to a profile during GAC operation.

Impact: The command will fail.

7242 Minor Error Action 14

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

7243 Minor Error Action 14

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

7244 Minor Error Action 14

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

7246 Minor Error Action 14

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

7247 Minor Error Action 15

Cause: Collect all relevant information and contact your Nortel Networks support organization.

Impact: Restart MMI_Server program using PRM_CONTROL. If the problem remains, back up the system and restart.

7299 Info Debug No Action

Cause: Used for debugging

Impact: Minimal

Actions

Action 1 Contact your Nortel Networks support group so that they can raise the problem with the development group.

Action 2 If this SEER occurs during the first half hour of a system bootup, together with SEER 7228, no action needs to be taken. This is due to program loading time. If the error persists, ensure that all Guest Administration Consoles are operational.

Action 3 If an error persists, reboot the system.

Action 4 Call Nortel's development organization.

Action 5 If this SEER occurs during the first half hour of a system bootup, no action needs to be taken. This is due to program loading time. If the error persists at other times, ensure that all the Guest Administration Consoles are operational. If they are not, reboot the system.

Action 6 The problem is most likely in the software. Try again later. If that fails, then the only way to solve the problem is to shut down the HAS program (one way to do this is by rebooting).

Action 7 Check the Sanity of the PLH task. If the error persists, reboot the system.

Action 8 Reboot the system.

Action 9 Call ETAS.

Action 10 Reboot the system, collect all the SEERS and report to Nortel's support organization.

Action 11 Rerun the tool. If problems persist, remove the mailbox that is causing the problems, and rerun the tool. If all else fails, contact your Nortel Networks support organization. Running a database swap in resynchronization mode may be an acceptable alternative.

Action 12 Exit the Hospitality Administration screen, reenter them, and try again. If this action fails, contact your Nortel Networks support organization.

Action 13 Try again later. If the problem persists, check to see if the particular profile is being used in another window on your terminal. If the problem continues to persist, contact your Nortel Networks support organization.

Action 14 Look up the return code and, if necessary, examine preceding or subsequent SEERs for more information. If the cause of the problem is still unclear, collect all relevant information and contact your Nortel Networks support organization.

Action 15 Contact your Nortel Networks support organization.

SCSI Diagnostics

Introduction

The SCSI Diagnostics are intended for the Administrator, and Test Engineering. Please refer to the test engineering user's guide for more information.

Reports

7300 Admin Info No Action

Cause: SCSI diagnostics information SEER.

Impact: None

7302 Major Error Action 1

Cause: Server Registration Error. Server not found.

Impact: Diagnostic cancelled.

7303 Major Error Action 2

Cause: Backup MSP could not take control of the bus controller.

Impact: Diagnostic failed.

7304 Major Error Action 2

Cause: Bus Time-out Error.

Impact: Diagnostic failed.

7305 Admin Info Action 4

Cause: Could not find the other MSP diagnostic program server.

Impact: Diagnostic failed.

7306 Admin Info/Major Action 5

Cause: Cannot synchronize Bus Controllers.

Impact: See text of the SEER to determine the reason. This family of errors indicates a misalignment between MSP1 and MSP2.

7307 Major Error Action 6

Cause: Bad Argument string.

Impact: Diagnostic failed.

Actions

Action 1 Server Registration Error

Action 2 Backup MSP could not take control of the bus controller.

Action 3 Bus Time-out Error.

Action 4 Could not find the corresponding diagnostic program on the redundant MSP.

Action 5 Redundant Bus Controller not in correct state.

Action 6 Bad argument string.

Voice Diagnostics (VPT)

Introduction

The VoicePath Diagnostics (VPT) program tests the voice path from MMail to respective switch and back.

Diagnostics are terminated upon error. If the test was run from the MMI scheduler with the option to tag faulty channels, then faulty channels will be so set in the Hardware Database.

A class 74 SEER may or may not contain the hardware location of the channel.

Reports

7400 Admin Info No Action

Cause: General information.

Impact: None

7401 Info Error Action 1

Cause: VPT program start request failed.

Impact: Diagnostics failed.

7402 Info Error Action 2

Cause: Bad argument string.

Impact: Diagnostics aborted.

7499 Admin Info Action 3

Cause: Voice channel failed to make connection during Voice path diagnostic.

Impact: Caller may not be able to make a connection to the DN using that voice channel, however, unaffected channels may still be used.

Actions

Action 1 VPT diagnostic failed.

Action 2 For user generated commands, please verify the commands used. For on-line tests, please contact Nortel Networks support.

Action 3 Perform off-line diagnostics and take appropriate measures according to the results. If problems with on-line tests persist, please contact Nortel Networks support.

Bus Controller Switchover Diagnostic

Introduction

The Bus Controller Switchover Diagnostic is intended for the Administrator, and Test Engineering. Please refer to the test engineering user's guide for more information.

Reports

7500 Admin Info No Action

Cause: Diagnostic information SEER

Impact: None

7502 Major Error Action 1

Cause: Server Registration Error. Server not found.

Impact: Diagnostic cancelled.

7503 Major Error Action 2

Cause: Backup MSP could not take control of the bus controller.

Impact: Diagnostic failed.

7504 Major Error Action 2

Cause: Bus Time-out Error.

Impact: Diagnostic failed.

7505 Admin Info Action 4

Cause: Could not find the other MSP diagnostic program server.

Impact: Diagnostic failed.

7506 Admin Info/Major Action 5

Cause: Cannot synchronize Bus Controllers.

Impact: See text of the SEER for the reasons why. This family of errors indicates a misalignment between MSP1 and MSP2.

7507 Major Error Action 6

Cause: Bad Argument string.

Impact: Diagnostic failed.

Actions

Action 1 Server Registration Error

Action 2 Backup MSP could not take control of the bus controller.

Action 3 Bus Time-out Error.

Action 4 Could not find corresponding diagnostic program on the redundant MSP.

Action 5 Redundant Bus Controller not in correct state.

Action 6 Bad argument string.

Selective Backup and Bulk Provisioning (SBR)

Introduction

Selective backup and restore provides the capability to save users' messages and PDLs, as well as voice service definitions, to tape and restore them later online. Bulk provisioning provides the capability to transfer voice services and VSDNs from one Meridian Mail system to another using a tape. It also allows local networking voice users to be saved to tape and provisioned at other sites as remote users.

Selective backup and bulk provisioning use common tape and base software introduced in MM11. For this reason class 76 includes base software SEERs relating to both features. The MMI will generally use the screen to report selective backup and bulk provisioning errors to the user, but also may also generate class 102 and 103 SEERs.

Only 4 SEER numbers are used to actually generate SEERS. These are catch-all SEERs:

7612 Selective backup

7613 Selective restore

7650 Provision from tape

7670 Copy dataset to tape

The return code and text associated with each SEER provides specific information on the nature of the problem. This section provides more detailed information on the return code and actions to be taken.

Overall, the SEER class 76 is divided into ranges:

7600-7619 General errors for selective backup, selective restore and bulk provisioning

7620-7649 Lower level tape file access

7650-7689 Bulk provisioning

Errors encountered during selective backup, selective restore, or bulk provisioning will in general not adversely affect the system. Existing data on the system will be preserved, and the data on the tape will not be copied to the system. The selective backup and selective restore software attempts to continue on error. Bulk provisioning will abort on error.

Reports

7600 Minor Error Action 1

Cause: Application error in passing an invalid control block to the base layers.

Impact: Requested operation will not be performed.

7601 Minor Error Action 1

Cause: An internal software error occurred with one software layer requesting un-implemented functionality from another software layer.

Impact: The operation will fail.

7602 Minor Error Action 1

Cause: An internal software error occurred with invalid parameters being passed to the base software.

Impact: The operation will fail.

7603 Minor Error Action 1

Cause: An internal software error occurred with the protocol used to communicate between the software layers.

Impact: The operation will fail.

7604 Minor Error Action 2

Cause: No data was specified. The MMI cannot check all valid inputs up front, and cases can arise where the user can make a request when no data is available.

Impact: The operation will not begin.

7605 Minor Error Action 3

Cause: A software limit has been reached. Most often, this is due to the storage limit of a user having been reached during selective restore.

The other limit is encountered during selective backup or bulk provisioning Copy to Tape. The summary file on tape supports up to 32 000 items of a specific type (for example, 32 000 users). In practice, the summary file limit is unlikely to be encountered due to other limits arising from memory restrictions.

Impact: Not all of a user’s messages will be restored

7606 Minor Error Action 1

Cause: During bulk provisioning or selective restore, a protocol error has resulted in a request to start provisioning before the provisioning header on the tape has been obtained.

Impact: The operation will not start.

7609 Minor Error Action 4

Cause: During selective restore, a user is logged in to the mailbox. Selective restore and mailbox login are mutually exclusive.

Impact: That particular mailbox will not be restored. Selective restore can continue with other users, however, if the administrator decides to.

7610 Minor Error Action 5

Cause: During selective restore, there is a data inconsistency that has been detected by the base software. The SEER text will provide the details, but this could include: an attempt to restore a missing mailbox, service or PDL, an attempt to restore a service of a different type, an invalid service ID on tape, or missing file on tape.

During selective backup or bulk provisioning Copy to Tape a variety of data consistency checks are done. This includes data record sizes and data contents. In normal operation the system will be consistent and the inconsistencies would be introduced through failing hardware or perhaps software error.

Impact: During selective restore the restore of the particular item will fail, but others may succeed.

Selective backup and bulk provisioning will fail before writing data to tape.

7612 Minor Error Action 11

Cause: An error occurred during selective backup. This is a catch-all SEER. The SEER text and return code indicate the nature of the problem.

Impact: Depends on the return code.

7613 Minor Error Action 11

Cause: An error occurred during restore from selective backup. This is a catch-all SEER. The SEER text and return code indicate the nature of the problem.

Impact: Depends on the return code.

7617 Minor Error Action 12

Cause: The tape inserted for restore from selective backup does not contain a selective backup. This is an up-front check to ensure the tape can be used for selective restore.

Impact: None. A selective backup tape is needed for selective restore.

7631 Minor Error Action 1

Cause: The tape file access layer encountered a positioning error on the tape when starting to find a file.

Impact: During restore from selective backup or bulk provisioning from tape all subsequent tape operations will fail.

7632 Minor Error Action 1

Cause: The tape file access layer encountered a positioning error on the tape in the middle of finding a file.

Impact: During restore from selective backup or bulk provisioning from tape all subsequent tape operations will fail.

7633 Minor Error Action 1

Cause: The tape file access layer encountered a positioning error on the tape when reading a file.

Impact: During restore from selective backup or bulk provisioning from tape all subsequent tape operations will fail.

7634 Minor Error Action 1

Cause: An incomplete data block was encountered on the tape.

Impact: During restore from selective backup or bulk provisioning from tape all subsequent tape operations will fail.

7635 Minor Error Action 1

Cause: A file header was expected at the current tape location, but was not found. The data on the tape is corrupt.

Impact: During restore from selective backup or bulk provisioning from tape all subsequent tape operations will fail.

7636 Minor Error Action 5

Cause: An empty file was encountered on the tape. This an unusual situation and would arise from a corrupt file on disk being copied to tape.

Impact: File would not be restored. Selective restore will abort the current user and prompt to continue with the next one. Bulk provisioning will abort.

7637 Minor Error Action 10

Cause: During selective restore or bulk provisioning from tape the requested file was not found on the tape. This may happen if spanning tapes and the subsequent tape does not belong to the same backup as the first tape.

Impact: Selective restore or bulk provisioning from tape will fail.

7640 Minor Error Action 1

Cause: An internal error occurred with the tape file access software in specifying the amount of data to read from tape.

Impact: Subsequent tape operations will fail.

7641 Minor Error Action 1

Cause: An internal error occurred with the tape file access software in specifying the amount of data to write to tape

Impact: Subsequent tape operations will fail.

7642 Minor Error Action 1

Cause: An internal error occurred with the tape file access software in the positioning of its read buffer.

Impact: Subsequent operations will fail.

7643 Minor Error Action 1

Cause: An internal error occurred with the tape file access software in the positioning of its write buffer.

Impact: Subsequent operations will fail.

7644 Minor Error Action 6

Cause: An error occurred while reading the header or file from the tape. The tape data is corrupt.

Impact: During restore from selective backup or bulk provisioning from tape, all subsequent tape operations will fail.

7645 Minor Error Action 1

Cause: Insufficient heap memory available. Selective restore will report this when first processing the restore request. This may also be encountered by selective backup/restore or bulk provisioning as the tape file access layer converts data to or from tape format.

Impact: The restore will not proceed or subsequent operations will fail.

7646 Minor Error Action 6

Cause: The block sequence data in a tape file is not correct. The tape data is corrupt.

Impact: During restore from selective backup or bulk provisioning from tape all subsequent tape operations will fail.

7647 Minor Error Action 6

Cause: The file data on the tape is not in the expected format. The tape data is corrupt.

Impact: During restore from selective backup or bulk provisioning from tape all subsequent tape operations will fail.

7650 Minor Error Action 11

Cause: An error occurred during bulk provisioning Provision from Tape. This a catch-all SEER. The SEER text and return code indicate the nature of the problem.

Impact: Depends on the SEER text and return code.

7651 Minor Error Action 1

Cause: During bulk provisioning the software is attempting to create the dataset cabinet when it already exists.

Impact: Bulk provisioning dataset maintenance or copy to tape will not be accessible.

7652 Minor Error Action 7

Cause: A bulk provisioning dataset file either had a dataset record of the wrong size or the data is corrupt.

Impact: The dataset will be unusable.

7653 Minor Error Action 1

Cause: Internal software error passing a dataset index that is beyond the end of the dataset cabinet.

Impact: Dataset operation will fail.

7654 Minor Error Action 1

Cause: An internal software error occurred attempting to perform dataset operations before obtaining a ticket to access the dataset database.

Impact: Bulk provisioning operations will fail.

7655 Minor Error Action 1

Cause: An internal software error occurred in passing an invalid dataset index to the base software.

Impact: The dataset operation will fail.

7656 Minor Error Action 8

Cause: During the provisioning or selective restore of a voice form, an existing voice form could not be locked since a user volume has been marked off-line due to a earlier problem. To maintain consistency voice forms software disallows changes to the form if problems have been encountered with a user volume.

Impact: Restore or provisioning of the voice form will fail.

7657 Minor Error Action 9

Cause: During bulk provisioning Provision from Tape, the organization directory is not available for updates.This is normal during a DR audit which typically happens at 3:30 a.m., but can be run at any time. The directory may also not be available for updates if support organizations have started a directory reload which did not complete.

Impact: The provisioning will not start.

7658 Minor Error Action 1

Cause: An internal software error occurred during bulk provisioning Provision from Tape. The application specific number associated with an item in a dataset could not be determined.

Impact: Bulk provisioning of that particular selection will fail.

7670 Minor Error Action 11

Cause: An error occurred during bulk provisioning Copy to Tape. This a catch-all SEER. The SEER text and return code indicate the nature of the problem.

Impact: Depends on the SEER text and return code.

7671 Minor Error Action 13

Cause: Checking for DN conflict failed. The SEER text and return code indicate the nature of the problem.

Impact: Depends on the SEER text and return code.

7672 Minor Error Action 14

Cause: Maximum number of Temporary Remote voice users has been added.

Impact: Bulk provisioning operation has been aborted.

Actions

Action 1 If using a tape then keep the tape. Do not re-use it since it may be valuable for problem analysis. Make a note of the operation being attempted and obtain SEERs from around the time of the problem. Contact your Nortel Networks support organization.

Action 2 Use the MMI to enter different input which corresponds to actual data and retry. If you are certain that data exists and the error persists, then keep the tape (do not re-use) and contact your Nortel Networks support organization.

Action 3 Ask the user whose messages are being restored to make room in the mailbox by deleting old messages. Alternatively, the user could be given more storage space using the MMI. Use a different class of service or use personal class of service to assign more storage. When more room is available, retry the restore.

Action 4 Ask the user to logout and remain logged out and retry the restore. The user may login back in when the restore is finished.

Action 5 Use the MMI and telset to check each item (for example, user, voice service) to ensure it is behaves properly. Some data items may have to be deleted and re-added. Also, look for other SEERs indicating problems with the data being copies to or from tape. They should be cleaned up as well. Once all data has been corrected, retry the operation.

If you encounter difficulties correcting data, or if the problems persist, contact your Nortel Networks support organization.

Action 6 If data on the tape is incomplete or corrupt, clean the tape heads and retry the operation using a different tape. Keep the tape for possible analysis. If problems persist, contact your Nortel Networks support organization.

Action 7 Attempt to delete the dataset using bulk provisioning data set maintenance. If this fails, contact your Nortel Networks support organization.

Action 8 Try again at 5 minute intervals. If voice forms software encounters a problem with a user volume, the volumes will be marked off-line and the Form Information file cannot be locked. Voice forms attempts to recover every 5 minutes.

If the problem persists after a few 5 minute intervals, contact your Nortel Networks support organization. In this case, the user volumes are experiencing problems and it is likely call answering and voice messaging will be affected as well.

Action 9 If an organization directory (DR) audit is running, wait for it to complete. This will be indicated by a 3135 SEER. Try again when the audit is done. If the DR is not available for other reasons, contact your Nortel Networks support organization.

Action 10 Redo the operation with the correct sequence of tapes. The distributor can use the BURP commands TAPEHDR or TAPELIST to list the volumes on the tape to determine if they belong to the same back. If the tapes are correct and the problem persists, keep the tapes (do not re-use them) and contact your Nortel Networks support organization.

Action 11 Look up the appropriate return code in this section, or in Appendix A of this manual for further details.

Action 12 Insert a selective backup tape.

Action 13 If SEER text indicates that DN already exists, resolve the conflict and retry the operation. If the problem persists, contact your Nortel Networks support organization.

Action 14 Increase the number of maximum Temporary Remote Voice users.

MR Server

Introduction

MR Server is a message router used to receive, validate, and route commands received from external sources.

Reports

7802 Major Error Action 2

Cause: MR Server failed to load the datafile into memory.

Impact: CMA will not be functional. Each requested will be rejected.

7809 Minor Error Action 1

Cause: Invalid tag used in CMA request.

Impact: The CMA fails to process the request.

7812 Minor Error Action 1

Cause: The AD server returns an invalid return code/data.

Impact: The CMA fails to process the request.

7815 Major Error Action 1

Cause: MR Server counldn't allocate buffers. The server will no receive any request.

Impact: CMA will fail to process request.

7821 Major Error Action 1

Cause: System logic error. The code is in an invalid state.

Impact: The CMA fails to process the request.

Actions

Action 1 Contact your Nortel Networks support organization if the problem persists.

Action 2 Contact your Nortel Networks support organization if the problem persists.

Fax Handler (FH)

Introduction

The Fax Handler (FH) is a procedural interface for applications that provides access to, and control of, fax records and fax segments. The fax handler functions as follows:

- initializes (session start) and releases (session termination) a fax session
- creates, opens, and closes fax records
- transmits and receives fax data

Like the Voice Handler (VH), the FH works in conjunction with the VPIO task. Since the VPIO task reports errors through Class 20 SEERs, VH errors may be observed when the VPIO is operating in fax mode. Refer to the chapter “Class 20 Voice Handler (VH)” for more information on the VH.

Reports

8113 Info Debug No Action

Cause: The FH has detected a bad page during reception. The page may be considered bad if the status received from the DSP is bad, if the number of scan lines received in the page is incorrect, or if the received resolution does not match what was expected. During transmission, this status is returned to indicate a transmission error.

Impact: None

8167 Info Debug Action 1

Cause: The DSP status indicates the fax session was terminated with an error. The DSP status codes are as follows:

1 - protocol timeout on transmit or receive
2 - far end response timeout on receive
3 - carrier did not drop
4 - an invalid fax command was detected
5 - unexpected disconnect message from the far end
6 - poor line quality/condition

7 - no response from far end
8 - incompatible far end fax machine
9 - block underrun
10 - retransmit timeout

Impact: The page currently being received is deleted. The fax session is immediately terminated.

8168 Minor Error Action 2

Cause: T1 timeout. The 35 second timeout occurred before the DSP and the remote Fax machine started the T.30 handshaking sequence.

If DSP was transmitting, the problem is likely to be

- The Fax machine ran out of paper and did not answer the call.
- The call-back number was busy/incorrect.
- The T.30 Call Connect Timeout value (in Hardware Database) is too low.
- The user did not press START key on the Fax machine to receive the Fax.

If DSP was receiving, the problem is likely to be

- The T.30 Call Connect Timeout value is too low.
- The administrator did not press the START key on the Fax machine to scan in the Fax.

Impact: Fax transmission fails.

8169 Minor Error Action 3

Cause: T2 timeout. The 7 second timeout occurred before the DSP received a T.30 command from the remote Fax machine.

The problem is likely to be

- The line was too noisy or the line disconnected before or after the Fax content was received.
- The T.30 Handshake Timeout value is too low.

Impact: Fax may be incomplete

8170 Minor Error Action 4

Cause: Carrier didn't drop. The DSP detected a Checksum error in a T.30 message from the remote Fax machine and the length of the message exceeded 2.55 seconds or the DSP received a single scan line which exceeded the 0.5 second maximum time limit.

If DSP was transmitting, the problem is likely to be:

- The line became too noisy before or after the Fax content was sent.

If DSP was receiving, the problem is likely to be:

- The line became too noisy before or after the Fax content was received.

- A single scan line exceeded the 0.5 second time limit, and the call had to be disconnected.

Impact: The fax may be incomplete.

8171 Minor Error Action 5

Cause: Invalid T.30 command. The DSP received an invalid T.30 message from the remote Fax machine.

- The remote Fax machine is not T.30 compliant.
- Bit errors in the data and CRC simulated an invalid T.30 message.

Impact: Fax may be incomplete.

8172 Minor Error Action 6

Cause: Unexpected disconnect. The remote Fax machine sent an unexpected disconnect message to the DSP.

If DSP was transmitting, the problem is likely to be:

- The DSP and the remote Fax machine both attempted to transmit a Fax.
- The remote Fax machine ran out of paper.

If DSP was receiving, the problem is likely to be:

- The DSP received a bad page from the remote Fax machine followed by a disconnect message.
- The DSP did not receive any pages from the remote Fax machine

Impact: The fax is incomplete

8173 Minor Error Action 7

Cause: Poor line condition. The remote Fax machine sent a Failure to Train message to the DSP after each training phase.

Impact: Fax transmission fails.

8174 Minor Error Action 8

Cause: No response from the far end. The remote Fax machine did not respond to a T.30 command sent to it by the DSP after three tries.

- The remote Fax machine ran out of paper or the paper jammed.
- The line was too noisy or the line disconnected before or after the Fax content was sent.
- The T.30 Response Timeout value is too low/high.

Impact: Fax transmission fails.

8175 Minor Error Action 9

Cause: Incompatible remote machine. The remote Fax machine and the DSP are incompatible.

If DSP was transmitting, the problem is likely to be:

- The remote Fax machine and the DSP attempted to receive a Fax at the same time.

If DSP was transmitting or receiving, the problem is likely to be:

- The remote machine does not conform to the G3 standard.

Impact: Fax transmission fails.

8176 Minor Error Action 10

Cause: Block underun watchdog timeout. The DSP terminated the transmission after waiting 10 seconds for the next fax block.

- A disk error caused the Fax content to become corrupt.
- A software timing delay on Meridian Mail caused the Fax content to be delayed.

Impact: Fax transmission is incomplete

8177 Minor Error Action 11

Cause: Page re-transmit watchdog timeout. The DSP was requested to retransmit the Fax but the software failed to pass a new Fax block to the DSP within 1 minute.

- A software timing delay on Meridian Mail caused the Fax content to be delayed.

Impact: Fax transmission is incomplete

8190 Minor Error Action 12

Cause:A tasking error occurred in communication between the application and the VPIO task or between the VPIO task and the application. If the text says “Tasking Error <error code>, sending to Application, Event <EventCode>”, then the event code indicates the event that is being passed to the application. The possible event codes are as follows:

8150 - end of fax segment reached
8151 - end of fax page reached
8152 - the maximum number of pages has been received
8155 - an ID string from the remote fax machine has been received
8156 - the fax session has been terminated

Impact: The message being sent is discarded. The impact will depend in which message is discarded and which application is executing. The impact will range from none to losing the use of that DSP port.

8198 Info Debug No Action

Cause: This SEER logs information about the current session that results from external variables. For example, when the page limit is exceeded, this SEER is issued.

Impact: None

8199 Minor Error Action 13

Cause: An unexpected condition was detected in the FH.

Impact: The session may not function as expected.

Actions

Action 1 Retry the fax operation.

Action 2 Move on to the next action in the list if the preceding action fails to pin-point the problem:

1. Check the call-back number in the Fax Audit Trail (correct dialling code etc.)
2. Call the call-back number from a regular phone (Verify that a Fax machine answers.)
3. Verify that the T.30 Call Connect Timeout is set to greater than 35 seconds in the hardware database
4. Rule out remote Fax machine user error

Action 3 Move on to the next action in the list if the preceding action fails to pin-point the problem:

1. Retry the transmission from the same Fax machine
2. Retry the transmission from a different Fax machine
3. Check the connection
4. Verify that the T.30 Handshake Timeout is set to 7 seconds in the hardware database

Action 4 Move on to the next action in the list if the preceding action fails to pin-point the problem:

1. Retry the transmission from the same Fax machine
2. Retry the transmission from a different Fax machine
3. Check the connection

Action 5 Move on to the next action in the list if the preceding action fails to pin-point the problem:

1. If possible, request that the operation of the remote Fax machine be verified
2. Retry the call with the same Fax machine
3. Retry the call with a different Fax machine

Action 6 Move on to the next action in the list if the preceding action fails to pin-point the problem:

1. If possible, verify that the remote Fax machine has paper
2. Retry the transmission from the same remote Fax machine
3. Check the connection

Action 7 Move on to the next action in the list if the preceding action fails to pin-point the problem:

1. Retry the transmission to the same remote Fax machine
2. Retry the transmission to a different remote Fax machine
3. Check the connection

Action 8 Move on to the next action in the list if the preceding action fails to pin-point the problem:

1. If possible, verify that the remote Fax machine has a working paper feeder
2. Retry the transmission to the same remote Fax machine
3. Verify that the T.30 Response Timeout is set to 3.0 seconds in the hardware database

Action 9 Move on to the next action in the list if the preceding action fails to pin-point the problem:

1. If possible, load page(s) into the remote Fax machine.
2. Retry the transmission from the same remote Fax machine.
3. Retry the transmission from a different remote Fax machine.

Action 10 Move on to the next action in the list if the preceding action fails to pin-point the problem:

1. Look for a Bad Block SEER indicating DSP detection of a corrupted fax block.

   If this SEER is present, retry the transmission to the same remote Fax machine. If the SEER appears again, this may indicate that the system has a disk problem.

2. Look for VPH/VPIO SEERs indicating software problems/crashes.

   If these SEERs are present, make sure that the channel in the MMI reloads and observe that calls can be made to/from this channel. If the channel does not reload, manually disable and reenable the channel.

Action 11 Move on to the next action in the list if the preceding action fails to pin-point the problem:

1. Retry the re-transmission to the same remote Fax machine.
2. Look for VPH/VPIO SEERs indicating software problems/crashes.

   If these SEERs are present, make sure that the channel in the MMI reloads and observe that calls can be made to/from this channel. If the channel does not reload, manually disable and reenable the channel.

Action 12 If further problems are observed with that multimedia port, disable the port indicated in the SEER's HWLOC and reenable it. If the problem is not corrected, reboot the system and check the result of the startup diagnostics. If the problem persists, contact your Nortel Networks support organization.

Action 13 If the problem is observed multiple times on the same port, disable the port indicated in the SEER and reenable it. If the problem persists, contact your Nortel Networks support organization.

Fax ASCII Translation (FX)

Introduction

The Fax ASCII Translation routine translates text and font data into a common block of data to be handed to the DSP for final translation and transmission to a far end fax machine.

Reports

8216 Info Debug Action 1

Cause: A software error has occurred while using the FX_UTIL tool. Only the DFONT FX_UTIL command is available with this tool. This command allows the user to send a copy of a complete font file to a fax machine.

This SEER is issued to technical personnel to view when a software error occurs. This SEER provides detailed information that can be viewed to determine the exact nature of the problem.

Impact: Minor. The command is not available to the administrator.

Actions

Action 1

a. Debug level SEER. The administrator's actions are displayed on the command line of the utility.

Problems easily diagnosed by an administrator, such as invalid DNs, re-order tones, or busy channels are indicated in a command line error message displayed to the administrator.

b. If a more complex software error occurs then the following message is displayed: "A software error has occurred, please try again later," followed by a lower level error code.

The following general diagnostic checks are displayed to the administrator:

- "Ensure that the FIS/FIM services are functioning properly." That is, make sure that a fax document can be faxed back to a fax machine.
- "Ensure that the voice soft key can be used to record a user's spoken name."

- "If any of the above features are not operational then this utility will also not function properly. Please review the appropriate NTP document to enable these features."

- "Review the lower level return code in Appendix A."

Fax Item Maintenance Service (FIM)

Introduction

The Fax Item Maintenance Service provides the administrator with the ability to maintain fax items. FIM errors will affect only one call or user session. If a serious problem is encountered during a FIM session, the update will be abandoned. If the error occurs prior to the fax reception being initiated, an error prompt will be played to the caller if possible, and the call will be disconnected. If the error occurs during the fax portion of the session, the call will be simply terminated. If verification was requested, a negative acknowledgement will be sent to the administrator of the fax item. In all error situations all of the system resources will be recovered if possible.

A Class 83 SEER will contain as many of the following items as are available:

- Error class and error number
- SEER text
- VSDN that was dialed to access this service
- Fax item ID that was being worked on
- Return code from the called routine

Reports

8301 Minor Error Action 1

Cause: An attempt to play a system or service prompt has failed.

Impact: The expected prompt will not be played. In all cases the service will continue on as if the request to play the prompt was successful. The failure of the prompt to play will cause the service to sound confusing to the caller.

8302 Minor Error Action 2

Cause: An attempt to record a confirmation prompt has failed.

Impact: The service will be disconnected gracefully and the update will be abandoned.

8303 Minor Error Action 3

Cause: An attempt to disconnect the call failed.

Impact: The service will function; however, the channel may remain active for a long time.

8304 Minor Error Action 4

Cause:
- Case 1. The call could not be answered.
- Case 2. The system or service prompt files, or both, could not be opened.
- Case 3. The volume server's operational measurements could not be read.
- Case 4. The volume on which the fax items are stored is more than 95% full.
- Case 5. An error occurred obtaining the custom session profile information.
- Case 6. A software error has occurred.
- Case 7. A problem occurred accessing the customer information.
- Case 8. A software error has occurred during the loading of a channel.

Impact: In all cases, the service will not be started.

8306 Info Admin No Action

Cause: Someone has attempted to logon to update a fax item and failed to logon correctly more than the maximum number of times allowed.

Impact: There is no system impact.

8307 Minor Error Action 5

Cause:
- Case 1. Removing a service definition during cleanup failed. The new service definition will reside on the system temporarily.
- Case 2. A fax item service definition could not be closed properly. The file will stay open for a short time.
- Case 3. An error occurred opening or reading a fax item. The session cannot proceed and the service will terminate gracefully.
- Case 4. A problem occurred while creating the file where a new fax item will reside. The session cannot proceed and the service will terminate gracefully.
- Case 5. During a play operation an error occurred trying to find the voice record in a fax item definition file. The session cannot proceed and the service will terminate.
- Case 6. During a record operation an error occurred trying to find or create the voice record in a fax item definition file. The session cannot proceed and the service will terminate gracefully.
- Case 7. During preparation for fax reception an error occurred finding records within a fax item definition file. The session cannot proceed and the service will terminate gracefully.

Impact: The impact depends upon the cause. See above.

8308 Minor Error Action 6

Cause: Case 1. A lower layer error occurred and the digit that was pressed by the caller cannot be retrieved. The service will not be able to respond to the command.

Case 2. The digit that was pressed according to the lower layers is an invalid digit, that is, one that is not recognized. The service will not be able to respond to the command.

Case 3. The VPH has reported an error condition within itself. The session cannot proceed and the service will terminate gracefully.

Case 4. The VPIO has reported a voice input/output event which is not recognized. It will be ignored.

Impact: The service will function properly. However, the user may be confused if their commands are not being recognized.

8310 Info Admin Action 7

Cause:

1. "Failed to remove fax item, FID=n.nnnnn.nnnnn."
   An attempt to remove a particular fax item, specified by the FID n.nnnnn.nnnnn from the voiceservice cabinet has failed.
2. "Failed to clean up extraneous fax item definitions."
   An attempt to scan through the voice services cabinet for fax items that need to be cleaned up failed.

Impact: Extraneous fax items will be left in the voice services cabinet. However, the update has taken place.

8311 Info Admin No Action

Cause: The fax item specified in the SEER was updated in some way.

Impact: None

8312 Minor Error Action 8

Cause: An attempt to read one of the customer or system profiles has failed.

Impact: Case 1. If the system is unable to read the OM record, unable to read the voice services profiles, or if an error occurs initiating a fax scan, the session cannot proceed and will terminate gracefully.

Case 2. If the system failed to read the date format, the default date format will be used which is dd/mm/yy.

8313 Minor Error No Action

Cause: An online upgrade shutdown message was received. The session will terminate gracefully.

Impact: Any updates up to this point will be lost.

8315 Info Admin Action 9

Cause: Someone has attempted to change the update password incorrectly. They have done this more than the maximum number of times allowed.

Impact: There is no system impact.

8316 Info Admin No Action

Cause: Someone has changed the update password for a fax item.

Impact: Anybody attempting to update this fax item with the old password will be unable to do so.

8318 Minor Admin Action 10

Cause: Fax reception to update a fax item has failed.

Impact: The update of the fax item will be abandoned.

8319 Minor Error Action 11

Cause: During the creation of the verification fax for an update, an error occurred in the creation of the cover page.

Impact: No verification will be sent.

8321 Minor Error Action 12

Cause:
- Case 1. The voice service DN could not be found in the DR.
- Case 2. Upon termination of the service an error occurred while attempting to unlock the DR entry for the specified fax item.
- Case 3. A DR error occurred while attempting to find the entry for the specified fax item.
- Case 4. An error occurred while attempting to lock the DR entry for the specified fax item.

Impact:
- Case 1. The requested verification will not be sent.
- Case 2. There is no long term impact. The next task to ask to lock this fax item will be granted permission.
- Case 3, 4. The specified fax item, if it exists, can not be updated. The session cannot proceed and will terminate gracefully.

8322 Minor Admin Action 13

Cause: An attempt to send a verification fax has failed

Impact: The person who updated this fax and who requested verification will not receive one.

8323 Minor Error Action 14

Cause: The initiation of the fax reception has failed due to a lower layer software problem.

Impact: The fax will not be able to be received. The session will be terminated and any update to the confirmation prompt will be abandoned.

8324 Minor Error Action 15

Cause: An error occurred during a voice operation.

Impact: The session cannot continue and will terminate gracefully.

8327 Minor Error Action 16

Cause: The fax item which was specified has a version number which is inconsistent with the current software.

Impact: This fax item cannot be updated. The session will terminate.

8328 Minor Error Action 17

Cause: An error occurred while cleaning up the update of a fax item.

Impact: The update will not take effect.

8329 Minor Error Action 18

Cause: At startup the system prompt file could not be found.

Impact: The service will attempt to start up first in the preferred language, and if this situation is encountered, it will attempt to start up in the default language.

8330 Major Error Action 18

Cause: At startup the service prompt file could not be found.

Impact: The service will attempt to start up first in the preferred language, and if this situation is encountered, it will attempt to start up in the default language.

8331 Major Error Action 3

Cause: During the creation of the fax batch that will be sent out for verification an error occurred.

Impact: No verification will be sent.

8337 Minor Error Action 19

Cause: Failed to switch to voice path diagnostic service.

Impact: A channel may be incorrectly marked as faulty by the voice path diagnostic service. The system's channel capacity may be decreased.

8338 Info Admin Action 20

Cause: An invalid call back number treatment was detected. The valid treatments are National (0), International (1), Dial-As-Entered (2), and ESN (3).

Impact: The service will use the Dial-As-Entered call back number treatment. Since FIM is usually used by administrators, they should be able to enter the call back number in the Dial-As-Entered format. Otherwise, the verification fax will not be sent to the administrator.

Actions

Action 1 Check the return code produced by this SEER. It will point to a lower layer problem. Look for other SEERs with the same class as the return code, and diagnose the problem. If the return code does not help, then contact your Nortel Networks support organization.

Action 2 Check the return code included in this SEER. It will point to a lower layer problem. Look for other SEERs which have the same class as the return code and diagnose the problem from there. If the return code does not help then contact your Nortel Networks support organization.

Action 3 Check the return code and the other accompanying SEERs. Perform whatever actions are specified by the SEERs. If this does not help, contact your Nortel Networks support organization.

Action 4

Cases 1, 2, 3, 5. The problem should clear itself. If the problem persists, contact your Nortel Networks support organization.

Cases 4, 8. Contact your Nortel Networks support organization.

Cases 6, 7. Attempt to re-enable the channel. If the problem persists contact your Nortel Networks support organization.

Action 5 In all cases the problem should clear itself. If it happens more than once, contact your Nortel Networks support organization.

Action 6 All of the cases should be transient problems. If they persist contact your Nortel Networks support organization.

Action 7 This problem should be transient. The next time an update of this fax item occurs, the extraneous files will be removed. If these SEERs persist, contact your Nortel Networks support organization.

Action 8 This problem should be transient. If the problem persists contact your Nortel Networks support organization.

Action 9 Check for a potentially malicious user trying to change the password.

Action 10 Check the return code. If the return code indicates poor line quality or an incompatible far-end fax machine, attempt to rectify the problem. If this is not possible contact your Nortel Networks support organization.

Action 11 Check the return code and other SEERs. Perform whatever actions are indicated by the accompanying SEERs. It is possible that this is a transient problem, but if not contact your Nortel Networks support organization.

Action 12 In Cases 1, 3, and 4, this problem should be transient. If the problem persists contact your Nortel Networks support organization. In Case 2, no action is required, as the system will recover itself.

Action 13 Check the accompanying SEERs for the underlying problem.

Action 14 Check the return code and other surrounding SEERs. Perform whatever actions are specified by the accompanying SEERs. If this does not help, contact your Nortel Networks support organization.

Action 15 Collect all accompanying SEERs and any other relevant information and contact your Nortel Networks support organization.

Action 16 Contact your Nortel Networks support organization.

Action 17 This problem should be transient. If it happens again contact your Nortel Networks support organization.

Action 18 Contact your Nortel Networks support organization.

Action 19 Check the return code produced by this SEER. It will point to a lower layer problem. Look for other SEERs with the same class as the return code to diagnose the problem. If the return code does not clarify the problem, contact your Nortel Networks support organization.

If it is a software problem, select the “Diagnostics Schedules” menu from the MMI “System Status and Maintenance” menu. Set the “Mark Channel Faulty if Voice Path Diagnostics Fail” to “No”. Reenable those channels that were mistakenly marked faulty by the voice path diagnostics. Contact your Nortel Networks support organization.

Action 20 If this problem occurs repeatedly on a single FIM service, the service’s session profile may be corrupt. Delete and recreate the service’s VSDN entry.

Multimedia Outcalling Agent (MCA)

Introduction

The Multimedia Outcalling Agent (MCA) provides fax printing services. Failures in the MCA function will affect only one call. For more serious problems, a duplicate call may occur.

A Class 84 SEER will generate message text and a low level return code.

Reports

8401 Minor Admin Action 1

Cause: The MCA has encountered unavailable resources.

Impact: The MCA will not place the call or, if the call has been placed, the fax will not be transmitted.

8403 Minor Admin Action 2

Cause: The fax cannot be transmitted.

Impact: The current fax transmission will be aborted.

8405 Minor Admin Action 3

Cause: There is a problem opening or reading a fax.

Impact: The fax transmission will be aborted.

8406 Minor Admin Action 4

Cause: A request for something that has not been implemented has been received.

Impact: The request will be ignored, or the service will be slow in responding. Temporary data corruption may have occurred.

8407 Minor Admin Action 1

Cause: An error was encountered while cleaning up resources.

Impact: The operation being performed will not be completed. If the operation involved closing a file, the file will not have been closed properly. If the operation involved a disconnect, the session will instead remain in service; however, in this situation, the service will eventually time-out and disconnect.

8408 Minor Admin Action 3

Cause: The software encountered an unexpected problem.

Impact: The session will disconnect.

8409 Info Debug No Action

Cause: Reporting an event worthy of noting.

Impact: None.

Actions

Action 1 The error text and return code will identify the resource that is unavailable. If the error persists, contact your Nortel Networks support organization.

Action 2 Examine the error text and the return code. If the cause of the problem is unclear, contact your Nortel Networks support organization.

Action 3 The error text and return code will identify the problem. If the error persists, contact your Nortel organization.

Action 4 None; the problem should clear itself.

Fax Printing (FP)

Introduction

Fax Printing (FP) is part of the Outcalling Server (OCS). The FP software schedules and controls the placement of call back fax transmissions.

The Fax Printing Outcalling Service (FP-OCS) communicates with, and uses many different parts of the Meridian Mail system. Some problems may be isolated to just one user or voice service, or may affect all outcalling operations.

Problems with four levels of problem severity can occur:

- *Critical* - Outcalling will cease or not be operating properly.
- *Major* - Some notifications, messages, or faxes may be lost. Outcalling will continue but the results are not guaranteed.
- *Minor* - May continue without adverse effect.
- *Info* - A normal event that should be logged.

The Class 85 SEERs give an indication of which FP-OCS operation failed, together with a lower level return code.

Reports

8501 Critical Admin Action 1

Cause: Fax Printing request processing routines could not be initialized.

Impact: Fax printing will not be available on the system.

8505 Major Admin Action 2

Cause: Trying to send a message that is not a fax.

Impact: Fax Printing will not transmit the fax.

8506 Major Admin Action 3

Cause: Failed to read fax or spool cabinet file information.

Impact: The OCS will cancel the fax and list the cancellation in the audit trail. If the spool cabinet could not be read then all FP requests for the volume containing the file will be cleared and recovered again.

8507 Major Error Action 4

Cause: The fax version is invalid.

Impact: A message with a version number that is illegal, or is greater than the release of this software, has been found. This may be due to a mismatch of software.

8508 Major Admin Action 5

Cause: A command issued to the OCS failed; the OCS could have terminated.

Impact: No fax messages will be lost. The MT will still try to send the fax to the OCS after a series of delays. However, if the OCS has terminated and does not restart, no outcalling session can take place.

8509 Major Admin Action 3

Cause: A problem occurred starting a recovery task.

Impact: Another recovery attempt will be automatically be made within five minutes. However, if this problem continues without the 9010 ”OCS Recovery Complete” debug SEER appearing, then FP for this volume may not work.

8510 Major Admin Action 3

Cause: The FP recovery task could not access the fax. There may be a problem with a lower layer of software. The fax may be incomplete due to an unexpected termination of the fax creation task.

Impact: If the fax was incomplete, it will be removed; otherwise another recovery attempt will automatically be made within five minutes. If recovery attempts continue without the 9010 ”OCS Recovery Complete” debug SEER, FP for this volume may not work.

Actions

Action 1 Reboot the system. Contact your Nortel Networks support organization if the problem does not clear.

Action 2 Contact your Nortel Networks support organization.

Action 3 If recovery does not take place (a 9010 debug SEER indicating “OCS: Recovery Complete” does not appear), then a lower level problem may exist (for example, the volume server or node has gone down). If the condition persists, contact your Nortel Networks support organization.

Action 4 Contact your Nortel Networks support organization.

Action 5 The OCS has probably terminated as a result of another kind of failure. Look for other SEERs that can be related to OCS failure. This could be caused, for example, by a node that has gone out of service, and then came back into service. Once the OCS is restarted, this problem should disappear.

SNMP Server (SN)

Introduction

The SNMP server (SN) is started by the Program Resource Manager (PRM). It serves the following functions:

- It receives selected SEERs form the SEER server, packages them as an SNMP trap, and sends them to the SNMP PC.
- It receives OM data committed messages from the OM server whenever network traffic data is committed to the OM file, packages them as event, and sends them to the SNMP PC.
- It receives network traffic requests from the SNMP PC, reads the data from the OM files, and returns the data to the SNMP PC.

Reports

8801 System Info Action 1

Cause: This SEER indicates that the SNMP PC has registered or de-registered with the SNMP server successfully. Note that in the case of registration, if RC is not zero, although the registrations is successful, one of the features is not started up properly. See Action 1 for more details.

Impact: SNMP service is started or ended.

8802 Minor Error Action 2

Cause: This error occurs when the SNMP server is starting up and none of the SNMP features such as the SNMP Notification or SNMP Reports, is installed.

Impact: The SNMP server does not start.

8803 Major Error Action 3

Cause: This error occurs when the SNMP server is starts up and trys to read the configuration information from the organization profile and the organization profile cannot be opened or its records read.

Impact: The SNMP server does not start.

8804 1. Critical Error Action 4
2. Minor Error Action 5

Cause: Case 1: This error occurs when there is not enough memory for allocating buffer pools.
Case 2: This error occurs when there is not enough memory to retrieve OM data.

Impact: Case 1: The SNMP server will not start.
Case 2: This problem is transient when the system is very busy and it runs out of available memory.

8805 Minor Error Action 6

Cause: This error occurs when the incoming PC packet contains an invalid command type.

Impact: The operation is not successful.

8806 Minor Error Action 6

Cause: This error occurs when the incoming PC packet contains an invalid command code.

Impact: The operation is not successful.

8807 Minor Error Action 6

Cause: This error occurs when the incoming PC packet contains an invalid packet length.

Impact: The operation is not successful.

8808 Debut Info Action 14

Cause: This SEER indicates that the SNMP PC has registered with an invalid request:

a) An SNMP feature is requested but it is not installed.
b) An SNMP feature is requested but it is not enabled.
c) The registration packet is corrupted.

Impact: Not all SNMP services re started. For example, if both SNMP Reports and SNMP Notification are requested but only SNMP Reports is installed and enabled, the SNMP service is stared only for SNMP Reports. This SEER is filed indicating that the SNMP Notification is not installed.

8809 Minor Error Action 7

Cause: This error occurs when the PC application issues a command without registering with the SNMP server. This can occur if the SNMP server restarts itself after the PC application has already registered.

Impact: The operation is not successful.

8810 Minor Error Action 8

Cause: The SNMP server cannot locate the TC Router. This can occur if the TC Router restarts itself.

Impact: The packet is not sent to the PC.

8811 Minor Error Action 9

Cause: Cannot communicate with the TC router or SNMP server. This is a result of a tasking error.

Impact: The operation is not successful.

8814 Minor Error Action 10

Cause: There is a problem formatting the SEER notification message to be sent to the PC.

Impact: The SEER message is not sent.

8816 Minor Error Action 11

Cause: This error occurs when there is a problem opening the OM file.

Impact: The OM data cannot be sent to the PC.

8817 Minor Error Action 11

Cause: This error occurs when there is a problem reading data from an OM file.

Impact: The OM data cannot be sent to the PC.

8819 Minor Error Action 11

Cause: This error occurs when the PC application requests OM data with an invalid time period.

Impact: The operation is not successful.

8821 Minor Error Action 10

Cause: This error occurs when an unavailable function or entry is called.

Impact: The operation is not successful.

8822 Minor Error Action 11

Cause: This error occurs when there is no traffic data for the requested time period.

Impact: The operation is not successful.

8823 Debug Info Action 12

Cause: This error occurs when the SNMP Reports feature is requested but the networking feature is not installed.

Impact: The SNMP Reports feature will not work.

8824 Minor Error Action 13

Cause: This error occurs when there are more that 150 remote sites defined.

Impact: The site list is not updated.

8826 Minor Error Action 15

Cause: This SEER indicates either that:
a) the SNMP PC has failed registering with the SNMP server; or
b) the SNMP PC has not responded for more that 25 minutes and has been de-registered by the SNMP server.

Impact: a) The new registration fails but the previously successful registration is active.

b) SNMP service is ended.

8827 1. Minor Error Action 16

2. Critical Error Action 17

Cause: Case 1: This error indicates that one of the framer task problems has occured:

a) the SNMP server cannot send a data packet to the framer task

b) the framer task has completed or has an exception.

Case 2: This error occurs when there is a problem starting up the framer task.

Impact: Case 1: The problem should be transient and the framer task recovers itself.

Case 2: The current transaction is lost.

8828 Minor Error Action 17

Cause: The SNMP server and SNMP utility have problems getting data from one another.

Impact: This error only affcts the SNMP utility.

Actions

Action 1 If the RC is non-zero, check the associated Debug SEER. It indicates the exact problem. Fix the problem and restart the PC application. If the error still persists, contact your Nortel Networks support organization.

Action 2 Check to make sure that the SNMP features are installed.

Action 3 Contact your local Nortel Networks support organization.

Action 4 Contact your local Nortel Networks support organization.

Action 5 Restart the PC application. If the error persists, contact your Nortel Networks support organization.

Action 6 Restart the PC application. If the error persists, reinstall the PC application. If the error still persists, contact your Nortel Networks support organization.

Action 7 Restart the PC application. If the error persists, contact your Nortel Networks support organization.

Action 8 Restart the PC application. If the error persists, use another link. If the error still persists, contact your Nortel Networks support organization.

Action 9 If the error persists, contact your Nortel Networks support organization.

Action 10 If the error persists contact your Nortel Networks support organization.

Action 11 If the error persists contact your Nortel Networks support organization.

Action 12 Check to make sure that either the AMIS or the Meridian Networking feature is installed. If neither the AMIS or the Meridian Networking feature is installed, contact your Nortel Networks support organization.

Action 13 Check to make sure that all registration data like the PC application password, is correct. Restart the PC application. If the error persists, reinstall the PC application. If the error still persists, contact your Nortel Networks support organization.

Action 14 The SEER text indicates which feature is not installed or not enabled. If the feature is not enabled, consult the System Administration Guide to enable the feature. Restart the PC. If the error indicates that the feature is not installed and you are certain that the feature is installed, reinstall the PC application. Restart the PC. If the error persists contact your Nortel Networks support organization.

Action 15 Check to make sure that all registration data such as the PC application password, is correct. Restart the PC application. If the error persists, reinstall the PC application. If the error still persists, contact your Nortel Networks support organization.

Action 16 The problem should be transient and the framer task recovers itself. If the error persists, contact your Nortel Networks support organization.

Action 17 Contact your local Nortel Networks support organization.

Outcalling Server (OCS)

Introduction

The Outcalling Server (OCS) is a multi-server which schedules and controls the placement of outgoing calls for Remote Notification (RN), Delivery to Nonusers (DNU), and Fax Printing (FP).

The OCS communicates and uses many different parts of the Meridian Mail system. Some problems may be isolated to just one user or may affect all outcalling operations. The severity of OCS SEERs vary:

- CRITICAL:Outcalling will cease or not be operating properly.
- MAJOR:Some notifications, messages or faxes may be lost. Outcalling will continue but the results are not guaranteed.
- MINOR:May continue without adverse effect.
- INFO:Normal event worthy of logging.

A class 90 SEER contains:

- an indication of which OCS operation failed (the request type refers to the type of outcalling service: RN, DNU, or FP)
- a lower level return code

Reports

9000 Minor Error Action 1

Cause: The OCS_UTIL was not started.

Impact: The OCS_UTIL cannot be used to monitor OCS activity.

9001 Major Admin Action 2

Cause: The request type was not within the set configured for this system.

Impact: This request type will not be available.

9002 Major Admin Action 3

Cause: The request type was valid but not a part of this software load.

Impact: This request type will not be available.

9003 Minor Admin Action 1

Cause:
1. Due to an error opening a user's personal profile, an attempt was made to locate the user in DR. The user was not found. The user may have been removed since the message was sent.
2. Due to an error opening a voice service profile, an attempt was made to locate the voice service in DR. The voice service was not found. The voice service may have been removed since the message was sent.

Impact:
Case 1 The RN or DNU message will be cancelled for this user. The user's name and extension cannot be listed due to the fact that they are no longer in the DR.
Case 2 The FP message will be cancelled for this voice service. The voice service's extension cannot be listed due to the fact that it is no longer in the DR.

9004 Critical Error Action 5

Cause: The system volume is not up yet. This is critical to the running of the all programs.

Impact: Until the system volume is up, no outcalling will take place.

9005 Minor Admin Action 6

Cause: Failed to commit or write an audit trail file.

Impact: The collection of audit trails will be disabled until the administrator turns their collection back ON from the Operational Measurement Options screen. The text of the SEER will indicate if the percentage of storage listed in the Operational Measurement Options screen was reached, the volume has become full, or an error has occurred.

9007 Minor Admin Action 7

Cause: An OCA/MCA/New Service has given the OCS an invalid session index value.

Impact: The OCS will schedule a new outcalling session. A duplicate call may occur.

9008 Critical Error Action 8

Cause: An OCS was not found on the system.

Impact: The OCS is not running. No outcalling will take place.

9009 Major Admin Action 9

Cause: The OCS was given an invalid time.

Impact: The outcalling will cease until a proper time is given to the OCS. It is possible that DNU, RN, or FP requests being processed may be lost.

9010 Info/Admin Debug No Action

Cause: This is a note indicating a state in the OCS.

Impact: This note is used to indicate when recovery is complete, when recovery is delayed, or when a change in the state of the outcalling server should be recorded.

9011 Critical Admin Action 10

Cause: An error occurred when trying to read the organization profile.

Impact: The Outcalling Server will not run until it is able to read this file.

9013 Major Admin Action 11

Cause: A lower-level routine was not able to process the results of call.

Impact: The name and extension of the user or voice service will be listed. The message, notification, or fax may have been lost. Only this user or voice service will be affected. Another SEER from the result-processing routine should explain the problem in further detail.

9014 Minor Admin Action 12

Cause: A recovery task (RN, DNU, or FP) has terminated unexpectedly.

Impact: The OCS will start a new recovery task. However, if this occurs repeatedly without a 9010 Debug SEER indicating “OCS: Recovery Complete”, outcalling may only function with user volumes/request types which have been successfully recovered.

9015 Minor Admin Action 13

Cause: A problem occurred with the OCS’s scheduling array.

Impact: The Outcalling Server will try to restart.

9016 Critical Error Action 14

Cause: Command line/Startlist parameters are not valid.

Impact: Until the proper command line parameters are given to the OCS it will not start.

9017 Minor Admin Action 15

Cause: An agent (MCA or OCA) or started service (RN, DNU, or FP) has completed but results have not been reported back to the OCS. Another call will be scheduled; this may or may not result in a duplicate call being made.

Impact: There is a possibility of a duplicate call being made.

9018 Major Admin Action 16

Cause: Unable to validate a RN, DNU, or FP request.

Impact: The name and extension of the user or voice service will be listed. The message, notification, or fax may have been lost. Only this user or voice service will be affected. Another SEER from the validation-processing routine should explain the problem in further detail.

9020 Critical Error Action 1

Cause: Unable to register the OCS as a multi-server on the system.

Impact: The OCS will not be available on the system until it can “Register” on the system.

9021 Case 1 - Major Admin Action 7
Case 2 - Debug Admin Action 7

Cause: Case 1. An internal state problem has occurred.
Case 2. A non-outcalling agent wants to perform outcalling duties.

Impact: Case 1. An abnormal communication has occurred between the OCS and OCA/MCA. The OCS will attempt to recover from this problem and schedule a new OCA/MCA. A duplicate call may or may not occur. Look for other RN, DNU, or FP SEERs to determine the exact nature of the problem.
Case 2. The OCS will ignore the requesting agent. Look for other RN, DNU, or FP SEERs to determine the exact nature of the problem.

9022 Major Admin Action 17

Cause: A bad return code was received from a request formation routine (RN, DNU, or FP).

Impact: The message, notification, or fax may have been lost. Another SEER from the generation-processing routine should explain the problem in further detail.

9023 Critical Error Action 18

Cause: Unable to determine the number of channels on the system.

Impact: The OCS will not start; that is, no outcalling will take place.

9024 Critical Error Action 19

Cause: A critical internal problem within the OCS has caused it to terminate.

Impact: The OCS will not start; that is, no outcalling will take place.

9027 Info Error Action 1

Cause: Insufficient memory for OCS to open audit trail.

Impact: OCS will restart. It is possible that duplicate calls may occur and/or requests being processed may be lost.

9028 Major Admin Action 20

Cause: OCS cannot acquire channels to perform outcalling.

Impact: OCS will retry acquiring a channel of the correct capabilities in the future. No further outcall deliveries will be completed until a channel has been acquired.

9029 Info Admin Action 21

Cause: The request is invalid or the request cannot be serviced due to a lack of channels with the correct capabilities.

Impact: The request type will not be available.

9030 Major Admin Action 22

Cause: The OCS cannot acquire channels to perform outcalling since none have been configured.

Impact: OCS will retry acquiring a channel of the correct capabilities in the future.

9031 Minor Error Action 23

Cause: Case 1: Failed to delete all Audit Trail files.
Case 2: Error opening Audit Trail cabinet.
Case 3: Error counting Audit Trail files.

Impact: Case 1-3 indicates that the system might not have been able to remove all of the Outcalling Audit Trail files from the outcalling audit trail directory (most likely /1/ocs). This causes the SysOps operation to fail. If it does not, there is no end-user impact other than the appearence of these SEERs whenever the audit trail is accessed from the MMI.

Actions

Action 1 Note the return codes and look for other related SEERs. If the condition persists, contact your Nortel Networks support organization.

Action 2 Reboot the system. Contact your Nortel Networks support organization if the problem is not cleared.

Action 3 Reboot the system. Contact your Nortel Networks support organization if the problem is not cleared.

Action 4 If this is occurring after a number of users or voice services have been removed from the system then this is normal. If not, then contact your Nortel Networks support organization.

Action 5 Contact your Nortel Networks support organization.

Action 6 If a storage limit was reached, reduce the number of days to store outcalling audit trails and set the collection of audit trail information to “Enabled”. If an error occurred while writing the audit trail file then look up the lower level return code and follow the advice given. Attempt to set the collection of audit trail information to “Enabled” in the Operational Measurement Options screen. If errors persist, contact your Nortel Networks support organization.

Action 7 If this problem occurs frequently (more than once a day), contact your Nortel Networks support organization.

Action 8 Review previous outcalling SEERs to try to determine why OCS is no longer running. Contact your Nortel Networks support organization.

Action 9 The affected requests will include in the SEER the user name and extension, or the voice service extension. If a short outage occurred then only these users or voice services will have been affected. If a longer outage occurs, then a problem may exist with the Time Server. Contact your Nortel Networks support organization.

Action 10 The lower level return code will be from AD. See Admin (AD, Class 30) to determine the problem within the organization profile. If unclear, contact your Nortel Networks support organization.

Action 11 Review the result-processing SEER (RN, DNU, or FP). Only this user or voice service should be affected. Follow the action indicated.

Action 12 If the condition persists, contact your Nortel Networks support organization.

Action 13 If the OCS fails to recover or this problem persists, contact your Nortel Networks support organization.

Action 14 Contact your Nortel Networks support organization.

Action 15 If this problem occurred a series of times, contact your Nortel Networks support organization.

Action 16 Review the validation-processing SEER (RN, DNU, or FP). Only this user or voice service should be affected. Follow the action indicated.

Action 17 Review the generation-processing SEER (RN, DNU, or FP). Only this user or voice service should be affected. Follow the action indicated.

Action 18 Contact your Nortel Networks support organization.

Action 19 Contact your Nortel Networks support organization.

Action 20 All channels capable of either a voice or multimedia outcall are out of service or cannot be acquired. If SEER text refers to an OCA, enable a full service voice channel capable of performing outcalling. If the SEER text refers to an MCA, enable a full service multimedia channel capable of performing fax delivery.

Action 21 If the request is invalid, reboot the system. Contact your Nortel Networks support organization if the problem is not cleared. If the request is valid, provide channels that are capable of handling the desired requests.

Action 22 The system has been configured to have no channels allowing outcalling. If outcalling is desired, configure the system to include channels that allow outcalling. For RN or DNU capability, add full service voice channels. For fax call back capability, add multimedia channels.

Action 23 The problem should resolve itself in at most 8 days because the system naturally removes Audit Trail files during normal operation. If this SEER is accompanied by other SEERs it may indicate a more serious problem.

Message Waiting Indicator (MWI) Audit

Introduction

The Message Waiting Indicator (MWI) audit task is a background task which runs periodically to ensure that the MWI is properly turned on for all mailboxes which have new messages. Normally the MWI is turned on immediately whenever a new message is deposited in a mailbox. However, some conditions, such as a switch reboot or an outage in the SMDI or AML/ISDN/AP link, can cause the MWI to be lost for some or all mailboxes. The purpose of the MWI audit is to ensure that no message waiting indications are lost permanently.

The MWI Audit is not essential to the normal operation of the system. It merely provides a “safety net” in case of certain unexpected failures.

In a system with multiple user volumes, there will be multiple MWI audit tasks, one per user volume.

Reports

9101 Minor Error Action 1

Cause: The MWI audit task cannot register to the name server with the name “mwiaudit_<node>” where <node> is the node number that the MWI audit task is running on.

Impact: MWI audit will still run at scheduled times. This MWI audit task cannot be triggered by link outage or setMWI utility.

9102 Minor Error Action 2

Cause: There is a problem trying to obtain information from a particular user. The user cabinet name is specified in the SEER. Possible causes for the problem are

1. Failed to open the specified user’s cabinet.
2. Failed to obtain the profile FIR from the cabinet.
3. Failed to retrieve the client ID from the cabinet.
4. Failed to open the profile file.
5. Failed to read the personal message record from the profile.

Impact: There is no MWI audit being performed on the user specified in the SEER. This mailbox may be corrupted.

9103 Minor Error Action 1

Cause: One of several failures in preparing for an audit.

1. Failed to obtain the system profile FID.
2. Failed to open the system profile.
3. Failed to read the Organization Basic Record.
4. Failed to read the Organization Feature Record.
5. Failed to obtain the FID of the "/<2 | 20x>/users" cabinet where <2 | 20x> is either 2 if MWI audit is running on node 1 or 200+<node #> for all other nodes.

Impact: No MWI audit will be performed for this session on this volume.

9104 Info System No Action

Cause: Time for a regular MWI audit.

Impact: A MWI audit has begun.

9105 Info System No Action

Cause: The MWI audit either has checked through all users or there was a problem.

Impact: The MWI audit is finished.

9106 Info System No Action

Cause: Other task has triggered an MWI audit.

Impact: The MWI audit has begun.

9107 Info System No Action

Cause: Other task has requested the MWI audit task to stop auditing.

Impact: The MWI audit will stop.

9109 Info Admin Action 3

Cause:
1. The mailbox either has not been logged in for at least 30 days.
2. The mailbox was created when the system was not running normally.

Impact:
Case 1. The stale mailbox will consume disk space from receiving broadcast messages.
Case 2. A mailbox not created during normal system operation may indicate a security problem.

Actions

Action 1: Look up the return code to identify the real problem.

Action 2: Look up the return code to identify the real problem. Determine if the mailbox is working properly. If not try deleting and recreating the mailbox. If problem persists, contact your Nortel Networks support organization.

Action 3: Case 1. Remove the stale mailbox if it is not in use.

Case 2. Remove and re-add the mailbox if it is valid and the SEER say the mailbox has bad creation time.

Delivery to Nonusers (DNU)

Introduction

Delivery to Nonusers (DNU) is part of the Outcalling Server. This DNU software schedules and controls the placement of outgoing delivery to nonuser calls.

The DNU-OCS (Delivery to Nonusers Outcalling Service) communicates with and uses many different parts of the Meridian Mail system. Problems can be isolated to just one user or can affect all outcalling operations. There are four classes of problem severity:

- Critical: Outcalling will cease or not be operating properly.
- Major: Some notifications or messages may be lost. Outcalling will continue but the results are not guaranteed.
- Minor: May continue without adverse effect.
- Info: Normal event worthy of logging.

A Class 92 SEER contains

- Indication of which DNU-OCS operation failed
- Lower level return code

Reports

9201 Critical Admin Action 1

Cause: Delivery to nonuser request processing routines could not be initialized.

Impact: Delivery to nonusers will not be available on the system.

9205 Major Admin Action 2

Cause: Trying to send a message which is not a DNU message.

Impact: DNU will not send the message.

9206 Major Admin Action 3

Cause: Failed to read a DNU Message or DNU cabinet file information record.

Impact: The OCS will cancel the DNU message and list the cancellation in the audit trail. If the DNU cabinet could not be read then all DNU requests for that user volume will be cleared and recovered again.

9207 Major Error Action 4

Cause: The version of a message is invalid.

Impact: A message with a version number greater than this release of software has been found. This may be due to a mismatch of software.

9208 Major Admin Action 5

Cause: A command issued to the OCS failed. The OCS could have terminated.

Impact: OCS function failure will not cause delivery loss of messages to nonusers. The MT will try to deliver the message to the outcalling server after a series of delays. If a message cannot be delivered, a non-delivery notification (NDN) will be returned. However, if the OCS has terminated and has not been restarted no further outcalling sessions will be possible.

9209 Major Admin Action 3

Cause: A problem has occurred starting a recovery task.

Impact: Another recovery attempt will be made five minutes later. However, if this problem continues without the 9010 “OCS: Recovery Complete” debug SEER, then DNU for this user volume may not work.

Actions

Action 1 Reboot the system. Contact your Nortel Networks support organization if the problem is not cleared.

Action 2 Contact your Nortel Networks support organization.

Action 3 If recovery does not take place, as indicated by the appearance of the 9010 Debug SEER saying “OCS: Recovery Complete”, then a lower level problem may exist. For example, the volume server or a node could have gone down. If the condition persists, contact your Nortel Networks support organization.

Action 4 Contact your Nortel Networks support organization.

Action 5 The OCS has probably terminated due to another kind of failure. Look for SEERs related to OCS termination. Once the cause has been identified and remedied, the OCS should begin to function. A node going out and then back into service can also cause OCS function failure.

Remote Notification (RN)

Introduction

Remote Notification (RN) is part of the Outcalling Server. This section of software, schedules and controls the placement of outgoing Remote Notification calls.

The RN-OCS communicates and uses many different parts of the Meridian Mail system. Some problems may be isolated to just one user or may affect all outcalling operations.

- Critical:Outcalling will cease or will not operate properly.
- Major:Some notifications or messages may be lost. Outcalling will continue but the results are not guaranteed.
- Minor:Outcalling may continue without adverse effect.
- Info:Normal outcalling events worthy of logging.

A Class 93 SEER contains:

- indication of which RN operation failed
- lower level return code

Reports

9302 Major Error Action 1

Cause: Outcalling has not been configured to handle RNs for the user's volume.

Impact: RNs for users on the volume will not be delivered. The outcalling audit trail will show that the RN could not be delivered.

9303 Critical Admin Action 2

Cause: RN was unable to register itself as a request type with the OCS.

Impact: RN will not be available on the system.

9305 Major Admin Action 3

Cause: A command issued to the OCS failed. The OCS could have terminated.

Impact: The fact that the OCS is not functioning will not cause the loss of any RNs because they will be recovered when the OCS restarts. However, if the OCS has terminated and is not restarting then there can be no further outcalling sessions.

9306 Major Admin Action 4

Cause: Failed to read or update a user's personal profile. This may be because:

1. The user's personal profile has become corrupted or unavailable due to some access problem. For example a volume server/node could have gone down.
2. The user has been deleted.

Note: Because the personal profile is inaccessible, no information about the user is printed.

Impact: The Remote Notification is lost.

9307 Major Admin Action 5

Cause: RN recovery task problems.

Impact: Recovery will be re-attempted five minutes later. If the 9010 "OCS: Recovery Complete" debug SEER does not appear, the RN for this user volume may not work.

9308 Minor Error Action 6

Cause: Conversion of the RN administration file failed.

Impact: RN calls will be made using the default RN administration values. The interaction between RN and the target phones or pagers may not be what is desired. The RN may fail and RN may, or may not, try again.

9309 Info Admin Action 7

Cause: The RN administration file was corrupt but has been replaced.

Impact: All fields in the RN Administration file will be set back to their defaults. This means that any changes made using the RN admin tool at the tools level will be lost. The interaction between RN and the target phones or pagers may not be what is desired. The RN may fail and RN may, or may not, try again.

9310 Minor Error Action 8

Cause: Problem setting the ShouldRN field of a message's FIR.

Impact: Either the message will not trigger a notification or a duplicate notification may occur.

Actions

Action 1 This is a system configuration problem. Contact your Nortel Networks support organization.

Action 2 Reboot the system. If the problem does not clear, contact your Nortel Networks support organization.

Action 3 The probable cause is that the OCS has terminated due to another kind of failure. Look for other SEERs related to the OCS's possible termination. Once restarted this problem should disappear.

Action 4
1. Look up the lower level return code and follow the advice given. This may involve removing and recreating the user.
2. If the user was deleted deliberately, no action is needed.

   If the user was deleted by accident, recreate the user.

Action 5 If the non-recovery situation continues, contact your Nortel Networks support organization.

Action 6 1. If the SEER states that default values are being used by RN, use the RN administration tool to reset the correct values.

2. If the SEER states that the RN administration file must be manually deleted and reconfigured, contact the Nortel Networks support organization.

Action 7 If the problem persists, please contact your Nortel Networks support organization.

Action 8 Look up the lower level return code and follow the advice given.

Admin Server (AS)

Introduction

The Admin Server (AS) is critical program multi-server which supports Integrated Mailbox Administration (IMA) requests from Meridian 1. Requests come in through the AMLH and replies are sent over the same route. Voice mailbox users can be added, deleted, changed, uploaded, or audited from Meridian 1 using this process.

Reports

9401 Major Error Action 1

Cause: Problems with the allocation of buffer spaces in the program.

Impact: The AS will be restarted by the PRM.

9402 Major Error Action 1

Cause: Program registration failure or a explicit termination request from PRM.

Impact: AS will be restarted by the PRM.

9404 Minor Error Action 2

Cause: Communication with the MMI server failed.

Impact: Session arbitration will be in error.

9405 Minor Error Action 2

Cause: Failure to read system organization data.

Impact: System information, such as feature set and languages, is not available.

9406 Minor Error Action 3

Cause: A general or miscellaneous problem.

Impact: The provisioning request cannot be performed with the given data or circumstances. This error is likely only minor and transitory. However, if it happens continually, a misuse of provisioning from the switch may be occurring and should be investigated.

9410 Minor Error Action 4

Cause: Either a system error has occurred or invalid data has been encountered for a user provisioning request.

Impact: User related administration operation initiated from the switch will not be successfully completed.

9449 Minor Error Action 5

Cause: Communication with AMLH failed.

Impact: Requests from the AS are suspended.

Actions

Action 1 If the error persists, contact your Nortel Networks support organization.

Action 2 Contact your Nortel Networks support organization.

Action 3 IF the seer returned states:

AS: Ignore request to add a User with Guest Class of Service.DN= <DN>

or

AS: Ignore request for a guest user.UserId= <UserID>

WHERE:

<DN> is the DN being provisioned from the switch <UserID> is the user id found in the DR that corresponds to the user that is being modified or queried or deleted from the switch.

THEN: A Guest user has been mistakenly added as a VMBA user on the switch. This is NOT supported and should be removed as a VMBA entry from the switch by switch administrator.

OTHERWISE:

If the error persists, contact your Nortel Networks support organization.

Action 4 In all cases it is advisable look at the return code and text of the message for more details. If the problem cannot be solved, contact your Nortel Networks support organization and report all SEER information.

Action 5 Contact your Nortel Networks support organization.

AD Server

Introduction

The AD Server (ADS) is a critical program multi-server which handles updates to mailboxes

Reports

9501 Minor Error Action 1

Cause: Program registration failure or explicit termination request from PRM.

Impact: The AD Server will be restarted by PRM.

9502 Minor Error Action 1

Cause: Communication with MMI server (MS) failure.

Impact: The attempted request will fail.

9503 Minor Error Action 1

Cause: System organizational data read failure.

Impact: The attempted request will fail. The server will be restarted automatically in order to re-initialize its data.

9504 Minor Error Action 2

Cause: A system error occurred while processing a request.

Impact: The attempted request will fail.

9505 Minor Error Action 2

Cause: Error provisioning a user as a result of invalid data or a system error.

Impact: The attempted request will fail.

Actions

Action 1 If the problem occurs consistently or frequently within a short period of time, contact the Nortel Networks support organization.

Action 2 In all cases, it is advisable to look at the return code and text of the message for details. If the problem cannot be solved using the return code information, contact you Nortel Networks support organization.

Universal Link Message Analyzer (ULMA)

Introduction

The ULMA is a utility accessible from the MMI's RSC, ETAS and TOOLS level. It will allow data transferred on any of the supported links (ACCESS, AdminPlus, AML, PMSI, SMDI or T1) to be captured, and stored on disk, or sent to the display, or both. The utility itself is fully menu driven.

Errors in the ULMA can result in failure of capturing link data and storing the data to the disk. In most cases, the failure of ULMA will not affect the normal operations of the underlying link.

Reports

9801 Minor Error Action 1

Cause: Tasking error encountered.

"Link handler communication tasking error", an error occcurred during a task communication.

"UL_DA:daKillTask failed", ULMA could not shutdown the data acquisition (DA) task.

"UL_DA:StartTask Could not initiate the DA task.", ULMA could not start the DA task.

Impact: Varies from losing commands or messages to failing to start ULMA.

9805 Minor Error Action 2

Cause: ULMA could not obtain data from link handler. This could be caused by errors in link handler and/or other internal tasks.

"UL_PRES: Error in UL_View", ULMA could not obtain data from link handler when viewing data.

"UL_PRES: Error in UL_Capture", ULMA could not obtain data from link handler when capturing data to log file.

Impact: ULMA cannot capture and display messages to users.

9806 Minor Error Action 3

Cause: ULMA failed to kill an internal task.

"UL_PRES: DATask was not terminated properly", ULMA could not shutdown the data acquisition (DA) task.

Impact: No impact. An internal task may not have completed properly.

9807 Minor Error Action 4

Cause: ULMA failed to retrieve messages for display. This could be due to corruption of log files or other disk errors.

"UL_PRES: PgDN get message error", ULMA could not display messages when paging down.

"UL_PRES: PgUp file error", ULMA could not display messages when paging up.

Impact: Log messages will not be displayed on the screen.

9810 Info Error Action 5

Cause: ULMA can not get buffer from link handler or from disk.

"UL_DA:Failed to Get/Write Buffer", the data acquisition (DA) task encountered an error when getting or writing to buffer space.

Impact: ULMA can not capture and display messages to users.

9811 Minor Error Action 6

Cause: Insufficient system resources or incorrect link handler information.

"UL_DA:Failed to start collecting", ULMA could not register the data acquisition (DA) task or failed to start collecting messages.

"UL_DA:Error at stop collecting", ULMA failed to stop collecting messages or could not de-regsiter the DA task.

Impact: ULMA cannot start to capture data from the link handler.

9814 Minor Error Action 4

Cause: This SEER is issued when ULMA fails to execute the command to start/stop logging data to disk. This may be due to errors in opening or closing files on disk.

Impact: Request is not executed.

9817 Minor Error Action 7

Cause: Failed to put message into a buffer. This may be caused by losing response with the logging task.

"Link Monitor is not responding. Logging disabled", the data acquisition (DA) task was not up"

"Failed to send link messages to Link MOnitor", a tasking error occurred when putting messages into a buffer.

Impact: Varies. In most cases, some messages will be lost. At worst, if the logging task is dead, ULMA will stop capturing data.

9818 Minor Error Action 8

Cause: Too many links defined in system.

Impact: Not all the links can be displayed in the main menu. Those links that are not displayed cannot be monitored by ULMA.

9819 Minor Error Action 9

Cause: Unable to open/read hardware database.

"Error reading hardware database", ULMA could not open/read/search the hardware database when retrieving link information.

"UL_PRES: Error opening ORG profile", ULMA could not open/read the organization profile when retrieving date and port information.

Impact: Link information can not be read. No links can be monitored.

9821 Minor Error Action 10

Cause: The formatting procedure for the selected link can not be loaded.

Impact: ULMA cannot monitor the selected link.

9822 Minor Error Action 3

Cause: Unable to create the link monitor screen.

Impact: ULMA cannot be started.

9824 Minor Error Action 3

Cause: An impossible event occurred.

Impact: No impact.

9825 Minor Error Action 3

Cause: Message buffer is overwritten.

Impact: Some messages may be lost.

9826 Minor Error Action 11

Cause: Unable to create a cabinet, or remove/search file in the cabinet.

"UL_DA: Error in Exisist proc", the dat aacquisition (DA) task could not open/close a cabinet.

"UL_DA: Error during file deletion", the DA task could not delete a log file.

"UL_DA: Error in Create_Cab proc", the DA task could not create the ULMA cabinet.

Impact: Varies. At worst, ULMA cannot be started if the ULMA cabinet can not be created.

Actions

Action 1 Go back to ULMA link selection menu and re-select the link. If the error persists, contact your Nortel Networks support organization.

Action 2 Go back to ULMA main menu and capture the data again. If the error persists, contact your Nortel Networks support organization.

Action 3 If the error persists, contact your Nortel Networks support organization.

Action 4 Re-execute the command. If the error persists, contact your Nortel Networks support organization.

Action 5 Try to identify the cause of the problem by looking at the return code and surrounding SEERs. If the error is due to disk error, use disk utilities to check the disk status and try to fix it. If the error is due to link handler, check and fix the corresponding link. If the problem persists, contact your Nortel Networks support organization.

Action 6 Unload any unnecessary utilities from the system. If the error persists, contact your Nortel Networks support organization.

Action 7 Go back to ULMA main menu and capture the data again. If the error persists, contact your Nortel Networks support organization.

Action 8 No action if the required link is shown on the link selection menu. Otherwise, contact your Nortel Networks support organization.

Action 9 Contact your Nortel Networks support organization.

Action 10 Contact your Nortel Networks support organization.

Action 11 Re-execute the command. If the error persists, contact your Nortel Networks support organization.

Software Configuration (SC)

Introduction

System Operation installs or updates the software on a hardware platform.

The following SEERs may occur during one of SC operations which include:

- installation
- comprehensive upgrade which includes:
  - conversion
  - upgrade
  - feature expansion
  - hardware modification (add channels, add nodes)
  - platform migration
  - storage expansion
  - language expansion
- disk operations (disk-to-disk back up, disk shutdowns)

Reports

10001 Critical Error Action 1

Cause: No LIFN in system.

Impact: The operation will abort.

10002 Critical Error Action 1

Cause: Failed to save current DSP_CONFIG file.

Impact: The operation will abort.

10003 Critical Error Action 1

Cause: Failed to move voice service cabinet.

Impact: The operation will abort.

10004 Critical Error Action 1

Cause: Attempted to add a node without using a keycode.

Impact: The operation will abort.

10005 Critical Error Action 1

Cause: Expected more voice ports in the linked list than were found.

Impact: The operation will abort.

10006 Critical Error Action 1

Cause: Error during autoconfigure of patching the VSA.

Impact: The operation will abort.

10007 Critical Error Action 1

Cause: Error during vsaChgDefVSDN.

Impact: The operation will abort.

10008 Critical Error Action 1

Cause: There was an error adding users during AutoConfigure.

Impact: The operation will abort.

10009 Critical Error Action 1

Cause: Fatal error converting personal profiles.

Impact: The operation will abort.

10010 Minor Error No Action

Cause: Minor error converting personal profiles.

Impact: The operation will continue.

10011 Critical Error Action 1

Cause: Fatal error calling co_FeatInstall.

Impact: The operation will abort.

10012 Critical Error Action 1

Cause: Unable to get to NEWVAR.

Impact: The operation will abort.

10013 Critical Error Action 1

Cause: Conversion base SEER.

Impact: The operation will abort.

10014 Critical Error Action 1

Cause: Failed to convert the hardware database

Impact: The operation will abort.

10015 Critical Error Action 1

Cause: Failed to convert personal profiles.

Impact: The operation will abort.

10016 Critical Error Action 1

Cause: Failed to convert system profile.

Impact: The operation will abort.

10017 Critical Error Action 1

Cause: Failed to convert Voice Services.

Impact: The operation will abort.

10018 Critical Error Action 1

Cause: Current software release is not allowed for conversion to this release.

Impact: The operation will abort.

10019 Minor Error No Action

Cause: CPTD Index out of range, using generic CPTD.

Impact: The CPTD Index will be set to Generic.

10020 Minor Error Action 2

Cause: Error - Old transition modules are detected.

Impact: The operation will continue.

10021 Critical Error Action 3

Cause: Error - Mix of transition modules.

Impact: The operation will abort.

10022 Critical Error Action 1

Cause: Error - Storage hours not valid for number of nodes.

Impact: The operation will abort.

10025 Critical Error Action 1

Cause: Voice nodes do not contain MMP40 cards, but only the MMP40 OS was found on the tape. The return code gives the number of non-MMP40 voice nodes.

Impact: The operation will abort.

10026 Critical Error Action 1

Cause: Voice nodes contain MMP40 cards, but the prime node does not. The return code contains a digit for each MMP40 voice node. For example, if only nodes 2 and 3 have MMP40 cards, RC=23.

Impact: The operation will abort.

10027 Critical Error Action 1

Cause: Some voice nodes have MMP40 cards, others do not. The return code contains a digit for each MMP40 voice node. For example, if only nodes 2 and 5 have MMP40 cards, RC=25.

Impact: The operation will abort.

10028 Critical Error Action 1

Cause: A node which formerly had an MMP40 card now has a non-MMP40 SBC. The return code contains a digit for each node which has been downgraded from MMP40. For example, if only nodes 2 and 4 have been downgraded, RC=24.

Impact: The operation will abort.

10029 Critical Error Action 1

Cause: An MMP40 card has been installed on a platform that does not support it. The return code indicates the platform:

RC = 1	Option 11
RC = 2	X-Cabinet
RC = 3	SPM
RC = 4	other unsupported type

Impact: The operation will abort.

10030 Critical Error Action 1

Cause: Unknown or invalid CPU type. The return code indicates the number of the node with the invalid CPU.

Impact: The operation will abort.

10031 Major Admin Action 1

Cause: An unsupported hybrid system configuration is detected, which contains a MMP40 prime node and 68010 voice nodes.

Impact: The operation will abort.

10032 Critical Error Action 4

Cause: You may not expand to include VMUIF without Multi-Customer.

Impact: The operation will abort.

10033 Critical Error Action 5

Cause: Operation has failed. Restore operation from the backup tape or disk is required to bring the system back to the previous working state.

Impact: The operation will abort.

10034 Critical Error Action 6

Cause: Hardware database conversion failed. Unable to determine the type of hardware database of the Option system under the conversion operation. SBC card record in hardware are in wrong positions.

Impact: The operation will abort.

10035 Critical Error Action 7

Cause: Incorrect release for the software upgrade.

Impact: The operation will abort.

10036 Critical Error Action 1

Cause: Component type out of range.

Impact: The operation will abort.

10037 Critical Error Action 1

Cause: Invalid system type.

Impact: The operation will abort.

10038 Minor Error Action 8

Cause: Failed to update the default baud rate in NVRAM.

Impact: The operation will complete except that the NVRAM will not be updated.

10039 Critical Error Action 1

Cause: Failed to convert the security file.

Impact: The operation will abort.

10045 Critical Error Action 13

Cause: Platform migration operation has failed.

Impact: The operation will abort.

10046 Critical Error Action 9

Cause: Failed in the OM conversion.

Impact: The operation will abort.

10047 Critical Error Action 9

Cause: Failed in the network database conversion.

Impact: The operation will abort.

10048 Critical Error Action 9

Cause: Failed in the outcalling conversion.

Impact: The operation will abort.

10049 Critical Error Action 9

Cause: Failed in the HVS conversion.

Impact: The operation will abort.

10050 Critical Error Action 10

Cause: Error - Too many voice ports are found.

Impact: The operation will abort.

10051 Major Error Action 12

Cause: Case 1: Online storage expansion fails.

Case 2: Online storage expansion is successful.

Impact: Case 1: Disk storage cannot be expanded. There should be no other impact on the system so long as it has not been rebooted.

Case 2: No impact

10052 Critical Error Action 15

Cause: Failed in the OC Conversion.

Impact: The operation will abort.

10091 Critical Error Action 14

Cause: The system has detected that the disk to disk backup feature is enabled.

Impact: The operation will abort.

10099 Info Admin Action 11

Cause: Cancellation of operation requested by user.

Impact: The operation aborts.

Actions

Action 1 The operation has been aborted. Follow the appropriate recovery steps and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware, focusing on any new hardware or cables which have been added to the system. If no hardware faults are found, try another Install/Data tape. If the problem continues, contact your Nortel Networks support representative.

Action 2 Replace all of the transition modules with the new transition modules.

Action 3 Either there is a mix of old and new transition modules or a transition module is not working. If a new node has been added, check the transition module on this node to see if it has been connected properly or perhaps is faulty.

Action 4 To add the feature VMUIF you must also add the feature Multi-Customer. If you do not have a keycode which includes both VMUIF and Multi Customer, you will need to contact your Nortel Representative.

Action 5 The operation has failed. Check other SEERs to determine the cause of the failure. If you are not able to address the root cause of the problem and rerun the operation, it will be necessary to restore from backup.

Action 6 Retry the operation. If it continues to fail contact your Nortel Networks support representative.

Action 7 Check that the version number on your install/data tape is newer than the version that is currently running on the system. If the version is correct, retry the operation. If the problem continues, contact your Nortel Networks support representative.

Action 8 The software was unable to change the MMP40 baud rate during the conversion. Do not change the baud rate on the terminal. You may attempt to change the baud rate again by re-booting from the install/data tape, going to the utilities menu, and select the option to change the Console baud rate. If this also fails, try replacing the MMP40 card on the prime node.

Action 9 The conversion operation has failed. Follow the suggestions from any other SEERs which were generated during the operation. You may also attempt to re-run the operation without first restoring. If the problem continues, contact your Nortel Networks support representative.

Action 10 More ports have been detected on a node than are permitted. Move some voice ports to another node.

Action 11 You have canceled the operation, contact your Nortel Networks support representative.

Action 12 You have an online storage expansion problem.

Action 13 An unsupported platform migration was attempted.

Action 14 Disk to disk backup feature is enabled. Turn this feature off using the Toggle Disk To Disk Backup utility on the Install/data tape.

Action 15 Contact your Nortel Networks support representative.

User Interface (UI)

Introduction

The User Interface (UI), better known as the Man-Machine Interface (MMI), is a set of instructions and screens that let the user view and change the contents of the Meridian Mail system, and operate various programs of the system.

Many of these SEERs reveal that data has been corrupted. Sometimes, these errors are just temporary and all you have to do is exit and re-enter a screen or try a command again. At times, you have to reboot the system.

Since each SEER class can only hold 99 SEERs and the MMI produces more than this number, MMI SEERs overflow into Classes 102 and 103.

Reports

10101 Minor Error Action 1

Cause: Attempt to add an already existing mailbox.

Impact: Mailbox cannot be added.

10102 Minor Error Action 1

Cause: No users exist that satisfy the specified view criteria.

Impact: User cannot be found.

10110 Minor Error Action 1

Cause: Attempt to open a new cabinet with old one(s) still open.

Impact: Cannot update the user.

10111 Minor Error Action 1

Cause: Write user not preceded by read user.

Impact: Cannot save the user.

10112 Minor Error Action 1

Cause: Delete user not preceded by read user.

Impact: Cannot delete the user.

10113 Minor Error Action 2

Cause: Write organization profile not preceded by read organization profile.

Impact: Cannot update the organizational information.

10116 Minor Error Action 3

Cause: Client ID of list entry does not exist.

Impact: Cannot update the distribution list.

Actions

Action 1: Exit from user administration. Re-enter and retry the command. If the problem persists, contact your Nortel Networks support organization.

Action 2 Exit from user administration. Re-enter and retry command. If the problem persists, contact your Nortel Networks support organization.

Action 3 Exit from user administration. Re-enter and retry the command. If the problem persists, contact your Nortel Networks support organization.

User Interface (UI)

Introduction

The User Interface (UI), better known as the Man-Machine Interface (MMI), is a set of instructions and screens that let the user view and change the contents of the Meridian Mail system, and operate various programs of the system.

Many of these SEERs reveal that data has been corrupted. Sometimes, these errors are just temporary and all you have to do is exit and re-enter a screen or try a command again. At times, you have to reboot the system to freshen the memory.

Since a SEER class can only hold 99 SEERs and the MMI produces more than this number, MMI SEERs overflow into Class 101 and Class 103.

Reports

10200 Minor Error Action 1

Cause: Error committing voice file.

Impact: Voice file not updated.

10201 Major Error Action 2

Cause: The Security file may be corrupt or there may not be enough memory.

Impact: It will not be possible to log into the MMI.

10202 Major Error Action 3

Cause: The system volume is full or the security file is corrupt.

Impact: It will not be possible to change the Administrator's password.

10203 Info Admin No Action

Cause: The System Administrator failed to log on.

Impact: None

10204 1. Info Admin No Action

2. Minor Error Action 4

Cause: Case 1: Administrator Password changed.
Case 2: Fail to change Administrator password.

Impact: 1. None
2. The password cannot be changed.

10205 Info Admin No action

Cause: Alarm silenced by administrator.

Impact: None

10211 Minor Error Action 1

Cause: Failed to read the system record.

Impact: Some MMI screens may not display or incorrect data may appear. This SEERs is a warning/indication of other system problems.

10215 Minor Error Action 5

Cause: The printer dataport or window could not be opened to send data.

Impact: The printer may not run. The MMI could be unstable.

10216 Minor Error Action 5

Cause: The printer dataport or window could not be opened to send data.

Impact: The printer may not run. The MMI could be unstable.

10217 Major Error Action 6

Cause: The file in which the MMI text is stored is corrupt or does not match MMI software.

Impact: The MMI will not run.

10220 Minor Error Action 1

Cause: Failed to verify existence of the specified customer.

Impact: The attempted operation cannot be performed.

10221 Minor Error Action 1

Cause: Failed to set the remote voice user timestamp.

Impact: The remote voice user timestamp will not be set.

10222 Minor Error Action 1

Cause: Failed to open the organization directory.

Impact: The attempted operation cannot be performed.

10223 Minor Error Action 1

Cause: Failed to close DR.

Impact: None.

10232 Minor Error Action 7

Cause: Tasking problem.

Impact: MMI will not poll for dynamic information.

10233 Minor Error Action 8

Cause: The MMI failed to communicate with the MMI Server program.

Impact: No arbitration will be done between user administration terminals.

10234 Minor Error Action 9

Cause: Console port speed utility failed to communicate with PRM_PROCS.

Impact: Only Node 1 console information can be viewed or modified.

10235 Minor Error Action 10

Cause: Unable to obtain console port speed information for specified node.

Impact: No console port speed information is displayed for the specified node.

10240 Minor Error Action 11

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10241 Minor Error Action 11

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10242 Minor Error Action 11

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10243 Minor Error Action 11

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10244 Minor Error Action 11

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10245 Minor Error Action 11

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10246 Minor Error Action 11

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10247 Minor Error Action 11

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10248 Minor Error Action 11

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10249 Minor Error Action 11

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10250 Major Error Action 2

Cause: MMI could not allocate storage for the requested operation.

Impact: Add, Delete or Modify of User Profile Data cannot be performed.

10251 Minor Error Action 12

Cause: MMI failed to gain access to or close the Networking Database.

Impact: Remote Users and Networking validation will fail.

10260 Minor Error Action 1

Cause: Lower level tapebase error.

Impact: The attempted tape operation cannot be performed.

10272 Minor Error Action 13

Cause: MMI failed to Print OM files, such as the traffic and Voice Menu files.

Impact: Specified OM reports cannot be printed.

10273 Minor Error Action 13

Cause: MMI failed to view OM files, such as traffic and Voice Menu files.

Impact: Specified OM reports cannot be viewed.

10275 Minor Error Action 14

Cause: MMI failed to view next SEER in SEER file.

Impact: Specified SEERs cannot be viewed.

10278 Minor Error Action 14

Cause: MMI was unable to get the specified alarm status because of a communication problem.

Impact: Alarm cannot be silenced.

10280 Minor Error Action 11

Cause: MMI failed to obtain storage to perform organization administration operations.

Impact: MMI unable to read or write to the organizational administration profile.

10281 Minor Error Action 15

Cause: MMI failed to obtain resources to perform organization operations.

Impact: MMI unable to read or write to organizational profile.

10282 Minor Error Action 15

Cause: MMI failed to read the organization profile.

Impact: It will not be possible to perform organization administration operations.

10283 Minor Error Action 15

Cause: MMI failed to write organizational profile.

Impact: Organization changes made in the session may be lost.

10284 Minor Error Action 15

Cause: MMI failed to Restart OM Server.

Impact: Changes made to OM Schedule may not take effect.

10285 Minor Error Action 16

Cause: MMI failed to close all files.

Impact: The system may slow down because of this system resource problem.

10286 Minor Error Action 15

Cause: MMI failed to restart or stop the SEER printer.

Impact: Changes to start or stop SEER printing will not take effect.

10287 Minor Error Action 16

Cause: MMI encountered an error while validating a Broadcast Mailbox.

Impact: The change to the Broadcast mailbox number is not accepted.

10289 Major Error Action 17

Cause: Failed to access the Customer Profile during Customer Administration.

Impact: No Customer administration will be available.

10290 Minor Error Action 18

Cause: MMI failed to view user. May indicate data corruption.

Impact: The Find User command will not work.

10292 Info Admin Action 19

Cause: 95% or 100% of mailbox limitation reached.

Impact: Administrator will not be able to add users when 100% is reached.

10297 Minor Error Action 20

Cause: OCS did not register user or organizational changes.

Impact: Outcalling may temporarily not work properly.

10298 Minor Error Action 21

Cause: Failure to add or modify dynamic personal or organizational records.

Impact: User or organizational information will be incomplete.

10299 Minor Error Action 22

Cause: Failure to record Personal Verification.

Impact: Personal Verification recording was not created or updated.

Actions

Action 1 Retry command. If the problem persists, contact your Nortel Networks support organization.

Action 2 Retry command. If the problem persists, contact your Nortel Networks support organization.

Action 3 Try again after system audits have been performed. If the problem persists, contact your Nortel Networks support organization.

Action 4 None required. The initial password cannot be used to download data and must be changed from the MMI whether the conversion is successful or not. There should be a class 96 SEER associated with this.

Action 5 Try another print function. Check the printer. If the problem persists, contact your Nortel Networks support organization.

Action 6 Contact your Nortel Networks support organization.

Action 7 Contact your Nortel Networks support organization.

Action 8 Contact your Nortel Networks support organization.

Action 9 Retry command. If the problem persists, contact your Nortel Networks support organization.

Action 10 If rc = 2, retry. If the problem persists, run Bootrom diagnostics on MMP40 card.
If rc = 3, run the Bootrom diagnostics on MMP40 card.

Action 11 Retry command. If the problem persists, contact your Nortel Networks support organization.

Action 12 Exit and re-enter User Administration. If the problem persists, contact your Nortel Networks support organization.

Action 13 IF printing reports then check the printer connection. Retry command. If the problem persists, contact your Nortel Networks support organization.

Action 14 Contact your Nortel Networks support organization.

Action 15 Retry command. If problem persists contact your Nortel Networks support organization.

Action 16 Exit and re-enter the screen. If the problem persists, contact your Nortel Networks support organization.

Action 17 Logout and log back into customer administration screen. If problem persists, contact your Nortel organization.

Action 18 Retry command. If the problem persists contact your Nortel Networks support organization.

Action 19 Contact your Nortel Networks support organization.

Action 20 If this is a user change, the user's <site ID/location ID/mailbox ID> will be indicated in the SEERs. Simply deposit a message in the user's mailbox to reactivate their remote notification, or try modifying the same user and saving the changes again.

If the change is for the organization-wide outcalling administration, try to modify and save the fields again. If it still fails, the changes will not be reflected in outcalling until the next reboot.

Action 21 Exit to Main Menu and reselect command. If the problem persists, contact your Nortel Networks support organization.

Action 22 Exit to Main Menu, re-select User Administration and retry command. If the problem persists, contact your Nortel Networks support organization.

User Interface (UI)

Introduction

The User Interface (UI), better known as the Man-Machine Interface (MMI), is a set of instructions and screens that let the user view and change the contents of the Meridian Mail system, and operate various programs of the system.

Many of these SEERs reveal that data is corrupt. Sometimes, these errors are just temporary and all you have to do is exit and re-enter a screen or try a command again. At times, you have to reboot the system to freshen the memory again.

Since a SEER class can only hold 99 SEERs and the MMI produces more than this number, MMI SEERs overflow to Class 101 and Class 102.

Reports

10300 Minor Error Action 1

Cause: Failed to perform the requested operation.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10301 Minor Error Action 1

Cause: Failed to perform the requested operation.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10302 Minor Error Action 1

Cause: Failed to perform the requested operation.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10303 Minor Error Action 1

Cause: Failed to perform the requested operation.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10304 Major Error Action 1

Cause: MMI failed to obtain storage to perform the modify operation on a list.

Impact: The list cannot be modified.

10305 Minor Error Action 2

Cause: The terminal was reset during the operation.

Impact: Changes to the list will not be saved.

10306 Minor Error Action 2

Cause: MMI failed to validate the mailbox for a list.

Impact: The specified mailbox cannot be used in a list.

10307 Minor Error Action 3

Cause: MMI failed to read the list of mailboxes.

Impact: It will not be possible to display the lists of mailboxes.

10308 Minor Error Action 3

Cause: MMI failed to close all files in the lists operation.

Impact: Possible resource problem.

10309 Major Error Action 3

Cause: MMI failed to obtain storage to perform this list operation.

Impact: The distribution list cannot be modified.

10310 Major Error Action 3

Cause: MMI failed to obtain resources to perform this list operation.

Impact: The Distribution List cannot be modified.

10311 Minor Error Action 4

Cause: MMI failed to add a list.

Impact: The Distribution List is not added.

10312 Minor Error Action 4

Cause: MMI failed to delete a list.

Impact: The Distribution List is not deleted.

10320 Minor Error Action 5

Cause: Corruption in Hardware Database. Mismatch of hardware information.

Impact: It will not be possible to read hardware records.

10321 Major Error Action 5

Cause: No Hardware Database cabinet exists which indicates that the Hardware Database is corrupt.

Impact: It will not be possible to read hardware records.

10322 Minor Error Action 3

Cause: Tasking problem.

Impact: System Status Screen, System Card Screen, or System Channel Screen will not be updated.

10323 Minor Error Action 5

Cause: The disk pair partner locations do not match.

Impact: Disk pairs will not be displayed properly in the disk maintenance screen. It will not be possible to synchronize the specified disk pair.

10330 Minor Error Action 5

Cause: Corruption in hardware database. Mismatch of hardware information.

Impact: It will not be possible to read hardware records.

10331 Major Error Action 5

Cause: No Hardware Database cabinet exists which indicates that the hardware database is corrupt.

Impact: It will not be possible to read hardware records.

10332 Major Error Action 3

Cause: The MMI has used all of its available heap.

Impact: It will not be possible to allocate storage for the operation.

10333 Minor Error Action 5

Cause: Corruption in Hardware Database. Mismatch of hardware information.

Impact: It will not be possible to read hardware records.

10334 Minor Error Action 6

Cause: Failed to update Cobra with the new port speed.

Impact: The on-line update of the new port speed has failed. No system impact.

10335 Minor Error Action 7

Cause: Updates to hardware database fail; specifically, the new port speed cannot be saved in the hardware database.

Impact: The change of port speed fails. No system impact from the SEER text.

10336 Minor Error Action 8

Cause: Node number out of range.

Impact: A MMLink or AdminPlus dataport on a non-existing node is defined in the hardware database. No system impact.

10337 Minor Error Action 9

Cause: An invalid baud rate value is stored in the hardware database. Modify hardware dataport may not be usable.

Impact: Invalid baudrate.

10340 Major Error Action 10

Cause: The Volume Status information could not be obtained.

Impact: Volume Status screen information will not be available.

10341 Major Error Action 3

Cause: The Backup Task was found to be dead.

Impact: It will not be possible to perform a backup.

10342 Major Error Action 3

Cause: Failed to initiate the backup task.

Impact: It will not be possible to perform a backup.

10343 Minor Error Action 11

Cause: An attempt was made to log in to a user administration terminal without the multiple-administrator terminal feature enabled.

Impact: Login to a user administration terminal is rejected.

10344 Minor Error Action 12

Cause: A scheduled backup was attempted while another backup was in progress.

Impact: Scheduled backup did not run.

10350 Minor Error Action 13

Cause: Failed to retrieve audit trail records.

Impact: Cannot display audit trail records.

10351 Minor Error Action 14

Cause: Incompatible version number for Audit Trail.

Impact: None. The old version of Audit Trail records will not be displayed.

10360 Major Error Action 15

Cause: Failed to obtain resources for Class of Service Administration.

Impact: Class of Service Administration cannot be performed.

10361 Major Error Action 15

Cause: Failed to read the specified Class of Service.

Impact: The Class of service record may be corrupted.

10362 Major Error Action 15

Cause: Failed to write the specified Class of Service.

Impact: The Class of Service record may be corrupted.

10363 Major Error Action 15

Cause: Failed to delete the specified Class of Service.

Impact: The Class of Service record may be corrupted.

10364 Minor Error Action 15

Cause: Failed to find the class while printing details.

Impact: The details of the class will not be printed.

10370 Minor Error Action 15

Cause: Invalid severity in SEER remap table.

Impact: The SEER will not be remapped.

10371 Minor Error Action 15

Cause: Error writing SEER record.

Impact: The changes to the SEER record will not be saved.

10380 Minor Error Action 16

Cause: General selective restore error.

Impact: The attempted operation cannot be performed.

10381 Minor Error Action 16

Cause: Data conversion error.

Impact: The attempted operation cannot be performed.

10399 Major Error Action 3

Cause: Failed to register the MMI.

Impact: MMI pass through will not work.

Actions

Action 1 Contact your Nortel Networks support organization.

Action 2 Try the command again.

Action 3 Log out of the MMI and then log back in. Try the command again. If the problem persists, contact your Nortel Networks support organization.

Action 4 Try the command again. If the problem persists, contact your Nortel Networks support organization.

Action 5 Log out. of the MMI and then log back in. Try the command again. If the problem persists, contact your Nortel Networks support organization.

Action 6 Either

1. Change the port speed to the old value and press “Save”. After this, try to change the port speed to the desired value again. It is recommended that this action be tried first.

or

2. Reboot the system for the new port speed to take effect.

Action 7 Take appropriate action based on the return code.

Action 8 Contact your Nortel Networks support organization.

Action 9 At TOOLS level, select a valid baudrate for the dataport and save it. The invalid baudrate will then be overwritten with a valid value.

Action 10 Log out and log in again. Try the command again. If the problem persists, contact your Nortel Networks support organization.

Action11 Try the command again. If the problem persists, contact your Nortel Networks support organization.

Action 12 Reschedule scheduled backup.

Action13 Try to view the Audit Trail the following day and if still incompatible, contact your Nortel Networks support organization.

Action 14 Wrong version of Audit Trail files exist on the system. Contact your Nortel Networks support organization.

Action 15 Try the command again. If the problem persists, contact your Nortel Networks support organization.

Action 16 Retry command. If the problem persists, contact your Nortel Networks support organization.

Fax Information Service, Announcements, Time-of-Day Services, and Voice Menus (VMU)

Introduction

Voice Menus, Announcements, Time-of-day, and Fax Information Service (FIS) are contained in one single piece of software (VMU).

With Voice Menus service, the Administrator can set up customized call processing applications allowing callers to listen to recorded information, leave messages in specific mailboxes or speak to specific mailbox owners. Each menu can have 12 actions, which correspond to the keys on a telephone.

The Announcements service provides an information recording.

The Time-of-Day service starts another service based on business days and hours, nonbusiness days and holidays.

Fax Information Service (FIS) allows callers to retrieve faxes.

VMU errors can cause Voice Menu, Announcement, Time-of-day, or Fax Information Service to

- become inaccessible
- be terminated due to inaccessibility, disconnection, or transfer to an operator

A Class 104 SEER generally contains

- the service file name “Serv. File [FILENAME]” (FILENAME is the voice service ID number defined by the administrator)
- an auxiliary string, “Aux [STRING]”, for example, DN
- an auxiliary integer, “AuxI [INTEGER]”, for example, Record ID
- a lower level return code, that gives more information on the problem

Reports

10402 Minor Error Action 1

Cause: VMU failed to transfer a caller in a voice service to the System Attendant.

Impact: The service will be terminated and the call will be disconnected.

10403 Minor Error Action 1

Cause: VMU failed to disconnect call. The return code isolates the cause.

Impact: The call will be disconnected at a later point.

10404 Major Error Action 1

Cause: VMU failed to initialize the System and Voice Service prompt files.

Impact: The caller will be transferred to the revert DN. Depending on the kind of low level error, the prompts may not be available to other services.

10405 Major Error Action 2

Cause: VMU failed to play a prompt from the System or Voice Service prompt files. The AuxI value is the prompt number.

Impact: The caller will be disconnected. Depending on the kind of low level error, prompts may not be available to other voice services.

10406 Major Error Action 3

Cause: VMU failed to call revert DN. The return code isolates the cause.

Impact: The caller will be transferred to the System Attendant instead of the revert DN.

10407 Major Error Action 4

Cause: VMU failed to open the System and Voice Service prompt files.

Impact: The caller will be transferred to the revert DN. Depending on the kind of low level error, the prompts may not be available to other services.

10408 Major Error Action 5

Cause: VMU failed to switch to specified service.

Impact: An error message will be played to the caller, but the caller will be allowed to perform other operations.

10409 Minor Error Action 6

Cause: The Service Definition file found did not match the requested type, for example it is not a Voice Menu, Announcement Time-of-day or Fax Information Service file. The request

could have come from the VSDN table (directly dialed), a Voice Menu, or a Time-of-Day controller.

Impact: An error message will be played to the caller and the service will be terminated.

10410 Minor Error Action 7

Cause: The voice service file version is not compatible with existing software after conversion.

Impact: An error message will be played to the caller, and the service will be terminated.

10411 Minor Error Action 1

Cause: Error occurred while reading a voice service file.

Impact: An error message will be played to the caller. The service may be terminated.

10412 Minor Error Action 8

Cause: A service file's voice prompts are corrupt. The return code isolates the cause.

Impact: An error message will be played to the caller. The service may be terminated.

10413 Minor Error Action 8

Cause: VMU failed to play a service file's voice prompt. The AuxI value is the file record ID number.

Impact: An error message will be played to the caller. The service may be terminated.

10414 Minor Admin Action 9

Cause: No greeting, choices, or announcement was recorded for the service file.

Impact: An error message will be played to the caller. The service may be terminated.

10415 Minor Error Action 10

Cause: VMU failed to place a call from a voice menu. The Aux value is the DN being called and the AuxI value is the digit entered from the key pad.

Impact: An error message will be played to the caller, and the caller will be transferred to the service's Revert DN.

10416 Minor Error Action 11

Cause: The service stack is temporarily corrupt. The Aux value is the File ID being stacked.

Impact: An error message will be played to the caller and the service will be terminated.

10417 Minor Error Action 11

Cause: VMU failed to initiate the voice service task.

Impact: The call will be disconnected.

10418 Major Error Action 11

Cause: Voice Menus cannot communicate with the lower level software.

Impact: A channel may not be able to bring up the voice menu, announcement, Fax Information Service or time-of-day service.

10419 Major Error Action 11

Cause: VMU failed to query VSS information.

Impact: The call will be terminated.

10420 Major Error Action 11

Cause: VMU failed to close a Voice Control Block. The file, associated with the open voice control block, may not have closed properly.

Impact: The next voice prompt file may not be opened. On systems with multilingual prompts, if the prompts can still be played, they may be in the wrong language.

10421 Major Error Action 11

Cause: VMU failed to close the voice service file.

Impact: This may cause the next service file not to be opened. On systems with multilingual prompts, if the prompts can still be played, they may be in the wrong language.

10422 Minor Admin Action 12

Cause: A Voice Menu was found instead of the expected Announcement.

Impact: The service terminates and the caller is disconnected.

10423 Minor Admin Action 13

Cause: An Announcement was found instead of the expected Voice Menu.

Impact: The service will terminate and the caller is disconnected.

10424 Minor Error Action 14

Cause: The VSS falsely told the service that the user entered a digit.

Impact: The digit will be ignored.

10425 Minor Admin Action 15

Cause: One of the internal lists of actions was found to be invalid.

Impact: The Voice Menu, Time-of-Day, Fax Information Service or Announcement service will be unusable.

10426 Minor Error Action 16

Cause: One of the internal lists of actions, for a menu definition, was found to be invalid.

Impact: The voice menu service will be unusable.

10427 Minor Error Action 17

Cause: An error code was returned as a prompt was being played.

Impact: The voice prompt may not play.

10428 Minor Admin Action 18

Cause: The version of the Time-of-day service file is not valid.

Impact: The service file, listed in the SEER, cannot be used.

10429 Minor Error Action 19

Cause: Either the time-of-day file or one of the files that it refers to could not be read.

Impact: An error message will be played to the user and the service will be disconnected.

10430 Major Error Action 11

Cause: An incoming call could not be answered by the Voice Menu service.

Impact: After a time-out, the call will be reverted to another service, which will play an error message to the user.

10431 Minor Error Action 20

Cause: Unable to send Voice Menu statistics to the OM.

Impact: The data collected during the user's session will be lost and the user's response time will slow down slightly.

10432 Major Error Action 21

Cause: Unable to open system file.

Impact: The call will be transferred to the revert DN.

10433 Major Error Action 22

Cause: Unable to convert the service ID and customer number to a search pattern.

Impact: The service will not be started.

10434 Info System Action 23

Cause: The Service Application was asked to terminate because the online update is about to begin.

Impact: The caller is disconnected from the current call.

10435 Minor Admin Action 24

Cause: A Voice Menu Service was found instead of the expected Fax Information Service.

Impact: The service will terminate and the caller is disconnected.

10436 Minor Admin Action 25

Cause: An Announcement was found instead of the expected Fax Information Service.

Impact: The service will terminate and the caller is disconnected.

10437 Minor Admin Action 26

Cause: A Fax Information Service was found instead of the expected Voice Menu Service.

Impact: The service will terminate and the caller is disconnected.

10438 Minor Admin Action 27

Cause: A Fax Information Service was found instead of the expected Announcement.

Impact: The service will terminate and the caller is disconnected.

10439 Minor Error Action 28

Cause: There was a problem in starting a fax transmission.

Impact: The fax item may not be sent.

10440 Minor Error Action 29

Cause: The sponsor fax item could not be added to the list of fax items.

Impact: The fax item may not be sent.

10441 Minor Error Action 28

Cause: The batch fax callback delivery has detected an error.

Impact: The fax item may not be sent.

10442 Minor Error Action 30

Cause: The service could not find the service id entered.

Impact: The service requested could not be found, the service will terminate.

10443 Minor Error Action 31

Cause: The sponsor service id in the session profile is not a fax item.

Impact: The fax session will terminate.

10444 Minor Error Action 32

Cause: The fax item does not have a faxed-in fax image.

Impact: The fax session will terminate.

10445 Minor Error Action 33

Cause: Fax batching (creating and collecting all the faxes selected) detected an error.

Impact: The fax session will terminate.

10446 Minor Admin Action 34

Cause: The session profile was not configured correctly to handle fax selection.

1. The channel does not have full-feature capability in the session profile.
2. The number of fax selections in the session profile is 0.
3. The voice menu was not meant to access Fax Information Services.

Impact: The caller will be transferred to the revert DN.

Actions

Action 1 Contact your Nortel Networks support organization.

Action 2 Call up the service and perform the set of actions that lead to this problem. If the problem persists, check the VX (class 21) SEER given by the return code and follow the instruction.

Action 3 Check that the revert DN, in the specified service file, is valid. If so, contact your Nortel Networks support organization.

Action 4 Contact your Nortel Networks support organization.

Action 5 Check the values in the Channel Allocation Table and contact your Nortel Networks support organization.

Action 6 If the service definition matches, contact your Nortel Networks support organization.

Action 7 Contact your Nortel Networks support organization.

Action 8 Delete and recreate the voice menu or Announcement Service file. If the problem remains or occurs again, contact your Nortel Networks support organization.

Action 9 If the service is a voice menu, record a greeting or choices prompt. If it is an announcement, record the announcement. If it is a Fax Information Service, record a confirmation prompt. If the error still occurs then contact your Nortel Networks support organization.

Action 10 Ensure that the DN specified in the voice menu is valid. If the DN is valid, look up the return code. If unclear, contact your Nortel Networks support organization.

Action 11 This is an internal software error. Contact your Nortel Networks support organization.

Action 12 A Voice Menu Service file id has been set up as an Announcement in either the VSDN table or the Announcement. Change the requested service type to match the Service Definition file.

Action 13 An Announcement file id has been set up as a Voice Menu Service in either the VSDN table or the Voice Menu Service. Change the requested service type to match the Service Definition file.

Action 14 If the error persists, contact your Nortel Networks support organization.

Action 15 Delete and recreate the service. Contact your Nortel Networks support organization if the error persists.

Action 16 Delete and recreate the voice menu. Contact your Nortel Networks support organization if the error persists.

Action 17 Contact your Nortel Networks support organization if the error persists.

Action 18 Delete and recreate the service indicated. Contact your Nortel Networks support organization if the error persists.

Action 19 Check the time-of-day file listed with the SEER. Make sure that the files that it refers to, which are the business, off hours, and holiday service files, exist. If the files are in order, contact your Nortel Networks support organization.

Action 20 If the problem persists, contact your Nortel Networks support organization.

Action 21 The return code indicates the problem with the file. If the problem persists, contact your Nortel Networks support organization.

Action 22 Contact your Nortel Networks support organization.

Action 23 MSM only: no action is required, the caller is terminated from the call and the service will close all opened files.

Action 24 A Voice Menu Service file id has been set up as a Fax Information Service in either the VSDN table or the Fax Information Service. Change the requested service type to match the Service Definition file.

Action 25 An Announcement service file id has been set up as a Fax Information Service in either the VSDN table or the Fax Information Service. Change the requested service type to match the Service Definition file.

Action 26 A Fax Information Service file id has been set up as a Voice Menu Service in either the VSDN table or the Voice Menu Service. Change the requested service type to match the Service Definition file.

Action 27 A Fax Information Service file id has been set up as an Announcement in either the VSDN table or the Announcement. Change the requested service type to match the Service Definition file.

Action 28 The return code will identify the problem. If the problem persists, disable all DSPs on the node, and re-enable them.

Action 29 The return code will identify the problem. Common administrative problems are:

10442 - Incorrect id was entered.

10443 - the service id was not a fax item

10444 - the fax image was not scanned in

Action 30 Verify the correct service id corresponds to a service created earlier. If the service was not created, create it.

Action 31 Add the correct fax id to the sponsor fax field in the session profile.

Action 32 Scan the fax item using FIM.

Action 33 If the problem persists, disable and then re-enable all DSPs on the same node.

Action 34
- Case 1. Change the session profile to give the channel full-feature capability.
- Case 2. Change the number of fax selection to a number greater than 0.
- Case 3. Remove FIS from the voice menu.

Voice Services Administration (VSA)

Introduction

The Voice Services Administration (VSA) creates and maintains several files which are used to define various services and the system administration:

- Voice service DN table (VSDN)
- Voice service profile
- Thru-dial service definitions
- Time-of-day control service definitions
- Voice menu service definitions
- Announcement service definitions
- Fax item service definitions, if installed

VSA errors indicate that part of the administration setup cannot be created or modified.

If a file cannot be modified or deleted then its service or area of administration is not changed.

A Class 105 SEER generally contains

- short description messages
- addition values, usually a DN or ID
- lower level return codes, usually from DD or CM

Reports

10501 Minor Error Action 1

Cause: VSA failed to find or open the voiceservice cabinet for a data menu.

Impact: An error message will be displayed stating that a system error has occurred and to try again later.

10502 Minor Error Action 2

Cause: VSA failed to delete a service file.

Impact: An error message will be displayed stating that the service file has not been deleted.

10503 Minor Error Action 2

Cause: VSA failed to validate a service file ID or DN.

Impact: A message will be displayed stating the error and asking the user to try again later.

10504 Minor Error Action 2

Cause: VSA failed to convert a customer name entered by an administrator into a valid customer name, not because there was a non-existent customer, but because of an internal translation problem.

Impact: The administrator may not be able to access information about that customer.

10505 Minor Admin Action 1

Cause: VSA is unable to translate the service acronym entered by an administrator into a service type due to an internal translation problem with the software code.

Impact: The information about that particular service may not be accessible in terms of view/modify or delete scenarios.

10506 Minor Error Action 3

Cause: VSA is unable to send VSDN table data or voice service definition data to the printer. Possible causes are that the printer is offline, out of paper, or jammed

Impact: A printout of the data will not be possible until the printer problem is fixed.

10507 Minor Error Action 14

Cause: The started form or menu required more memory than was available.

Impact: A system error will be displayed and the user will be returned to the previous menu.

10508 Major Admin Action 2

Cause: VSA failed to read an organization profile (the system profile or the profile of a particular customer).

Impact: A message will be displayed on the voice administration action menu to the effect that the voice services administration package could not be loaded. The impact is major because administration of voice services cannot proceed through the screen forms and menus interface.

10509 Minor Admin Action 18

Cause: The MMI server is not responding to requests to get or release VSDN entries or voice service definition entries.

Impact: Access to VSDN entries and/or voice services definition entries will not be controlled. All access will be on the basis of the last admin terminal to make a change to an entry will have that change preserved. That is, if two or more terminals are accessing the same entry at the same time, both will be able to modify the entry and the last change made is the one that will take effect.

10510 Minor Error Action 4

Cause: This is an information SEER produced when administering VSDNs or voice service definitions at an admin console.

Impact: Provides feedback to administrator and acts as a transaction log.

10511 Minor Error Action 1

Cause: Unable to read the hardware database.

Impact: VSA will not know whether there are basic channels or voice ports. Thus the VSDN will display all types of session profile selections for voice menu services, fax information services, and fax item maintenance services even if some selections are not valid for the system.

10512 Minor Error Action 1

Cause: VSA failed to read a time-of-day service file.

Impact: A system error will be displayed and the user will be returned to the previous data menu.

10513 Minor Error Action 2

Cause: VSA failed to write a time-of-day service file.

Impact: A system error will be displayed.

10516 Minor Error Action 5

Cause: Unable to read the session profile detail file associated with a VSDN. This could be caused by one of the two following situations:

1. The detail FID of a VSDN with a custom session profile is NIL.
2. A lower level system error has occurred.

Impact: Unable to modify and save the VSDN as long as it is associated with the current service.

10517 Minor Error Action 2

Cause: Unable to write the session profile detail file when trying to save a VSDN entry.

Impact: The VSDN cannot be saved with the service defined for it.

10522 Minor Error Action 2

Cause: VSA failed to write the voice service profile.

Impact: A system error will be displayed.

10531 Minor Error Action 16

Cause: A record was discovered to be missing, when trying to add voice.

Impact: A system error will be displayed and the user will not be allowed to add voice to the service file in the session.

10532 Minor Error Action 16

Cause: VSA failed to read, create, or set up an announcement service file.

Impact: A system error will be displayed and the user will be returned to the calling data menu.

10533 Minor Error Action 16

Cause: VSA failed to write an announcement service file.

Impact: A system error will be displayed.

10534 Minor Error Action 16

Cause: VSA failed to read, create, or set up a fax information service file.

Impact: A system error will be displayed and the user will be returned to the calling data menu.

10535 Minor Error Action 16

Cause: VSA failed to read, create, or set up a fax information service file.

Impact: A system error will be displayed. Changes or additions to the file will not be written to disk.

10541 Minor Error Action 16

Cause: VSA failed to read, create, or set up a thru-dialing service file.

Impact: A system error will be displayed and the user will be returned to the calling data menu.

10542 Minor Error Action 16

Cause: VSA failed to write a thru-dialing service file.

Impact: A system error will be displayed and the user will be allowed to try to save the service file again.

10551 Case 1. Minor Error Action 6
Case 2. Debug Info Action 6

Cause: The MMI failed to read or create the CAT file.

Impact: Case 1. A system error will be displayed and the user will be returned to the system status and maintenance menu.

Case 2. A system error will be displayed and the user will be returned to the system status and maintenance menu. This SEER is a result of a data menu construction problem. This should only occur during the design and testing phase.

10555 Minor Error Action 6

Cause: The CAT failed to access the hardware database.

Impact: In most cases this has occurred as a result of collecting data to be displayed on the channel allocation table. The hardware database will continue to collect data for other channels or ports even if data for one channel or port cannot be collected. The result will be an incomplete, and possibly corrupted, channel allocation table presented to the administrator.

10558 Minor Error Action 7

Cause: The Channel Allocation Table reflects the state of T1 Channels and DSP Ports as defined in the Hardware Database.

When modifying the Channel Allocation Table it is possible, and allowed, to reconfigure T1 channels such that the T1 Channel totals get out of sync with (that is, do not match) the DSP Port totals as defined in the Hardware Database system record. In particular, the totals of concern are those for Voice and Multimedia T1 Channels and DSP Ports.

This is allowed so that the administrator can exit the Channel Allocation Table and return to the System Status and Maintenance action menu in order to proceed with reconfiguring the Voice and Multimedia DSP ports. As a result, the administrator will be warned on the screen of this “out of sync” condition. As well, a SEER will be printed to mark the time when this condition occurred. Once the condition is corrected, by remodifying the

Channel Allocation Table, a SEER will be printed to mark the time when this condition was corrected.

The following SEER Text could be given:

1. Hwdb is out of sync:
   #Voice DSP Ports defined = <W>
   #Voice T1 Channels allocated = <X>
   #Multi DSP Ports defined = <Y>
   #Multi T1 Channels allocated = <Z>

   where:

   W = the number of DSP voice ports as defined in the hardware database

   X = the number of T1 Channels designated to be of type Voice

   Y = the number of DSP multimedia ports as defined in the database

   Z = the number of T1 Channels designated to be of type Multimedia

2. Hwdb is back in sync:
   #Voice DSP Ports defined = #Voice T1 Channels alloc: <X>
   #Multi DSP Ports defined = #Multi T1 Channels allocated: <Y>

   where:

   X = the number of T1 Channels designated to be of type Voice

   Y = the number of T1 Channels designated to be of type Multimedia

Impact: If the T1 Channels remain ‘out of sync’ with the DSP Ports then it is possible that there may be fewer DSP Ports of the same Type as T1 Channels. For example, if there were 10 Multimedia T1 Channels but only 8 Multimedia DSP Ports, the ninth concurrent call for a Multimedia service will be rejected since there are not enough Multimedia DSP ports available.

10559 Minor Error Action 8

Cause: When modifying the Channel Allocation Table it is possible, and allowed, to configure the channels such that a given primary DN (or ACD DN on a Meridian 1 or SL-1 switch) might end up pointing to channels with different types or capabilities.

This is allowed so that the administrator can exit one Channel Allocation Table form for one node (or link on an MSM), and move on to the CAT form for a different node (or link on an MSM), in order to realign channels across nodes/links.

Because of this flexibility, the administrator could also choose to return to the System Status and Maintenance action menu, leaving the Primary (or ACD) DNs pointing to a mix of channels. As a result, the administrator will be informed of this condition by a warning message on the MMI. As well, a SEER will be printed with the same information as a matter of record.

The following SEER text could be given for AML Link systems (Meridian 1/SL-1)

1. "Nodes <N>-#<nn> and <M>-#<mm> (ACDDN <nnnnnnnn>) have different channel types."

   or

2. "Nodes <N>-#<nn> and <M>-#<mm> (ACDDN <nnnnnnnn>) have different channel capabilities."

The following SEER text could be given for an SMDI Link, non-MSM system:

3. "Nodes <N>-#<nn> and <M>-#<mm> (PrimaryDN <nnnnnnnn>) have different channel types."

   or

4. "Nodes <N>-#<nn> and <M>-#<mm> (PrimaryDN <nnnnnnnn>) have different channel capabilities."

The following SEER text could be given for an SMDI Link, MSM system:

5. "Links <A>-#<nn> and <B>-#<mm> (PrimaryDN<nnnnnnnn>) have different channel types."

   or

6. "Links <A>-#<nn> and <B>-#<mm> (PrimaryDN<nnnnnnn>) have different channel capabilities."

where:

N = the number of the first node in the comparison.
M = the number of the second node in the comparison. This could be the same as <N>.
nn = the number of the channel on the first node or link in the comparison.
mm = the number of the channel on the second node or link in the comparison. This is different than <nn>.
A = the Link ID, represented as a letter from A to H, of the first T1 link.
B = the Link ID, represented as a letter from A to H, of the second T1 link. This could be the same as <A>.
nnnnnnnn = a DN consisting of 1 to 8 digits.

Impact: If the DNs representing the queues consist of a mixture of different types of channels, or a mixture of channels with different capabilities, then it is possible that calls terminating on such a queue will be rejected since the required match of a channel to a service will fail.

10560 Minor Error Action 2

Cause: Unable to read the system profile to obtain the networking/hospitality customer number.

Impact: Unable to save the CAT table changes. No system impact.

10561 Minor Error Action 1

Cause: VSA failed to validate DN. An error occurred reading the VSDN file.

Impact: A system error will be displayed and the user will be returned to the previous data menu.

10562 Minor Error Action 1

Cause: VSA failed to read or create a VSDN entry.

Impact: A system error will be displayed and the user will be returned to the previous data menu.

10563 Minor Error Action 2

Cause: VSA failed to write a VSDN entry.

Impact: A system error will be displayed.

10564 Minor Error Action 2

Cause: VSA failed to delete a DN from a VSDN entry.

Impact: A system error will be displayed and the user will be returned to the previous data menu.

10565 Minor Error Action 2

Cause: VSA failed to set up a VSDN Data menu.

Impact: A system error will be displayed and the user will be returned to the voice system configuration menu.

10572 Minor Error Action 16

Cause: VSA failed to delete a voice record from a service definition file, typically from a voice menu file.

Impact: A system error will be displayed.

10573 Minor Error Action16

Cause: VSA failed to read, create, or set up a voice menu service file.

Impact: A system error will be displayed and the user returned to the previous data menu.

10574 Minor Error Action 16

Cause: VSA failed to write a voice menu service file.

Impact: A system error will be displayed.

10581 Minor Error Action 16

Cause: VSA failed to read, create, or set up a voice form service file.

Impact: A system error will be displayed and the user will get returned to the data menu.

10582 Minor Error Action 2

Cause: VSA failed to lock the form information file associated with a voice form service file, or was unable to delete all existing caller responses.

Impact: A system error will be displayed and the user will be returned to the data menu or command line.

10583 Minor Error Action 2

Cause: VSA was unable to access a voice record in a voice form service file while setting up for a voice operation.

Impact: A system error will be displayed.

10584 Minor Error Action 2

Cause: VSA failed to write information to a voice form service file.

Impact: A system error will be displayed.

10585 Minor Error Action 2

Cause: VSA failed to update the status information for a voice form service file in the corporate directory.

Impact: A system error will be displayed and the status of the voice form may be left in an inconsistent state. This means that callers or transcribers may experience errors when attempting to access the voice form.

10586 Minor Error Action 1

Cause: VSA was unable to read the information about a field in a voice form service file while constructing a menu for displaying the list of fields.

Impact: A partial list of fields will be displayed to the user.

10587 Minor Error Action 1

Cause: VSA failed to read, create, or setup for a particular field in a voice form service file.

Impact: A system error will be displayed and the user will be returned to the data menu.

10588 Minor Error Action 15

Cause: VSA failed to perform a requested operation on a particular field in a voice form service file. There has been a file or disk access/corruption problem.

Impact: The operation could not be performed. A system error will be displayed and the user will be returned to the data menu.

10589 Minor Error Action 2

Cause: Unable to validate the mailbox number entered.

Impact: Unable to use the entered mailbox as the mailbox to which a Voice Form response notification is sent to. No system impact.

10591 Minor Error Action 9

Cause: The voiceservice cabinet and files have been moved to the /1/fieldsupport cabinet but a destination voiceservice cabinet already exists and will not be replaced.

Impact: The move will fail unless the condition is corrected. To succeed in moving voice service files, the destination voiceservice cabinet should be empty and nonexistent.

10592 Info Admin Action 10

Cause: Warning that cabinet still contains some files; cabinet not deleted.

Impact: Cabinet will not be deleted until it is empty.

10593 Minor Error Action 16

One of the following phrases will appear in the SEER followed by one or more voice service file names

- Bad service definitions:
- Dangling DR entries for:
- Purging DR entries:
- Moving service definitions:

Cause: A problem occurred with a service definition file listed in this SEER when moving cabinets. See the field support garbage collection cabinet.

Impact:

Case 1	Bad Service Definitions: The file of concern has been moved, if possible, to the fieldsupport cabinet for study.
Case 2:	Dangling DR entries for: A DR entry exists for a file which does not exist.
Case 3:	Purging DR entries: A DR entry has been removed for a file transferred to the fieldsupport cabinet.
Case 4:	Moving Service Definitions: The file of concern has been moved to the fieldsupport cabinet for study.

10595 Minor Error Action 11

Cause: Source and destination cabinets are the same. (This should only occur as a result of node expansion.)

Impact: Move cabinet (and move service definition files) will fail if an attempt is made to move the voiceservice cabinet to itself.

10596 Info Admin Action 12

Cause: Cannot retrieve a proper garbage collection cabinet from sc_types or one cannot be opened.

Impact: Any VSP_UTIL function which requires a field support cabinet will not succeed unless a /1/fieldsupport cabinet exists.

10597 Minor Error Action 13

Cause: Cannot find the voice service file name in the voiceservice cabinet.

Impact: Case 1. If the service is still accessible, then operations to this file can continue as normal. However, if the VSP_UTIL commands are run to clean up the voiceservice cabinet, this voice service will become inaccessible because its file name is incorrect and it will be moved to the fieldsupport cabinet.

Case 2. If the service is not accessible, then it cannot be updated or used.

Actions

Action 1 Exit VSA, then retry the failed action. If error persists, contact your Nortel Networks support organization.

Action 2 Retry the failed action. If error persists, contact your Nortel Networks support organization.

Action 3 Determine the nature of the printer problem and setup the printer. For example, check if the printer is offline, out of paper, or jammed.

Action 4 If desired, this SEER can be turned on or off in the voice service profile menu in VSA

Action 5
1. Check the return code in the SEER.
2. If the return code is zero (0), then delete the VSDN and add it again.
3. If the return code is not zero, a low level system error has occurred. Contact your Nortel Networks support organization.

Action 6
1. Exit the session and try to access the channel allocation table again.
2. If the situation still exists, contact your Nortel Networks support organization.

Action 7 Go to the Channel Allocation Table to re-synchronize the T1 channels with the DSP ports by doing the following:
1. Set the number of Voice T1 Channels to equal the number of Voice DSP Ports
2. Set the number of Multimedia T1 Channels to equal the number of Multimedia DSP Ports.

Action 8
1. Read and understand the “cause” section of error 59.
2. Re-enter the Channel Allocation Table to correct the mismatches.

Action 9
1. Refer to instructions in the System Installation and Modification Guide.
2. Ensure there is no destination voiceservice cabinet if you are certain it is not needed.

Action 10
1. Verify that the existing files are not significant.
2. Delete the files.
3. Repeat the action.

Action 11
1. Refer to instructions in the Hardware Modification Guidelines.

Action 12 Create a /1/fieldsupport cabinet or call your Nortel Networks support organization and arrange to have a representative do so.

Action 13 Case 1. If the service is accessible, view/modify it and then save it. The filename in the voiceservice cabinet will be updated with the name that is in the VSDN table in the corporate directory.

Case 2. If the service is not accessible, contact your Nortel Networks support organization.

Action 14 Exit VSA, then retry the failed action. If error persists, contact your Nortel Networks support organization.

Action 15 Exit VSA, then retry the failed action. If error persists, contact your Nortel Networks support organization.

Action 16 Retry the failed action. If error persists, contact your Nortel Networks support organization.

Action 17 Retry the failed action. If error persists, contact your Nortel Networks support organization.

Action 18 Retry the failed action. If error persists, contact your Nortel Networks support organization.

Thru-dialing (TD)

Introduction

The Thru-dialing Subsystem

- reverts the user to the revert DN on initial input time-out
- solicits the extension number or name of person to call
- places the call connection
- informs the user of a failed call connection attempt
- disconnects the service when call connection is made

Failures in Thru-dialing can cause

- loss of use of the service and transfer of the user to the revert DN defined for the service (if it is known) or to an attendant
- the user-specified action to fail, although the user can try again

A Class 106 SEER generally contains

- return code from lower level software
- additional information such as the DN of the user's phone, the language or the type of operation

Reports

10601 Critical Error Action 1

Cause: Failure to start the Thru-dial service.

Impact: The Thru-dialing service will not be started. Users who access Thru-dial directly will get transferred to the Custom Revert Number DN or the system attendant, if known. If these numbers are not known, the service will be disconnected. If the Thru-dialing service is accessed from a voice menu, the user will be returned to that voice menu. In either case, an error prompt will be played, if possible, before the user is transferred.

10602 Minor Error Action 8

Cause: Problem accessing a guest mailbox.

Impact: Thru-dial will not be able to switch to express messaging. Caller must call another service in order to leave the message in the guest mailbox.

10603 Minor Error Action 2

Cause: An unexpected return code was received from the Voice Handler in response to a voice operation.

Impact: The voice operation may not be completed, for example, a prompt may not be played. The user should be able to continue the session.

10604 Minor Error Action 3

Cause: The Voice Processor did not process the voice operation request in time because the system is under load or there is a problem with the voice processor hardware. The return code isolates the cause.

Impact: The requested voice operation will not be completed (for example, a prompt will not be played).

10605 Minor Error Action 4

Cause: The ISDN/AP link may be down.

Impact: The connection to the specified extension number will not be made. The system will try to connect the user to the revert DN instead. If the ISDN/AP link is still down, the service would appear to be not responding.

10606 Minor Error Action 5

Cause: The revert DN has an illegal character.

Impact: The custom revert operation will not be completed. The user will be connected to a system attendant if possible. If there is no attendant to which to revert, the session continues. If the link is still down, the service may appear to not be responding.

10607 Minor Error Action 6

Cause: Help command was unexpectedly received.

Impact: The help command is ignored because the user is in a state where no help is defined or needed. Temporary data corruption may have occurred.

10608 Minor Error Action 7

Cause: The system has entered an unknown time-out state.

Impact: The time-out is ignored. The service may be slow in responding. Temporary data corruption may have occurred.

10609 Minor Error Action 8

Cause: The cleaning up of computer resources failed. The operation may be closing a file or disconnecting the service.

Impact: The operation is not completed. If the operation was to close a file, that file is not closed properly. If the operation was to disconnect, the session will remain in service, but the service will eventually time out and disconnect.

10610 Minor Error Action 9

Cause: The requested operation failed.

Impact: The operation will not be completed. If the operation was to switch the user back to the voice menu, the user will be transferred to the revert DN instead. If the operation was to retrieve a digit, the user will have to re-enter the digit or the data item which contains the digit.

10611 Info System Action 10

Cause: The thru dial application was asked to terminate because the online update is about to begin.

Impact: The caller is disconnected from the current call.

10612 Info Admin Action 11

Cause: A thru-dial access has been detected from a Calling Line ID (CLID) which is being monitored.

Impact: This access could be authorized, or this access could be a breach of security. In the second case, a caller may be trying to obtain, or has obtained, unauthorized use of the thru-dial service, and unauthorized toll charges may be incurred.

10613 Info Admin Action 11

Cause: A thru-dial access has been detected.

Impact: This access could be authorized, or this access could be a breach of security. In the second case, a caller may be trying to obtain, or has obtained, unauthorized use of the thru-dial service, and unauthorized toll charges may be incurred.

Actions

Action 1 Check that the system has been configured properly, for example that the system and voice service prompt files are installed, and check that the Thru-dialing service is set up properly. The access DN should be configured and the service definition file should be defined. Usually the error text and the return code identify the unavailable resource.

Action 2 Look up the return code for specific information. If the problem is still unclear, contact your Nortel Networks support organization.

Action 3 Check each Voice Processor status by running out-of-service diagnostics on the voice cards.

Action 4 Check the system status screen in the MMI to confirm that the ISDN/AP link is down. This problem will clear when the link automatically comes back up.

Action 5 Check the revert DN of the Thru-dial definition.

Action 6 Check the return code to see if the user is in an invalid state. The problem should clear itself, so no further action is required.

Action 7: None. The problem should clear itself.

Action 8 Check the return code produced by this SEER. It will point to a lower layer problem. Look for other SEERs with the same class as the return code, and diagnose the problem. If the return code does not help, or the error persists, contact your Nortel Networks support organization.

Action 9 Check the return code to see if the voice service shell is functioning properly. If the error persists, contact your Nortel Networks support organization to restart the Voice Service Shells.

Action 10 MSM only: no action is required, the caller is terminated from the call and the service will close all opened files.

Action 11 Note all the information provided by the SEER. The SEER may contain:

the CLID of the calling party (“CLID=”)

the DN of the party they are attempting to reach (“CDN=”)

the mailbox from which the access was made (“Mbox=”)

the DN associated with the thru-dial service (“DN=”)

Unsuccessful attempts to access the thru-dial service will not contain a “CDN=” field.

Attempt to determine if the access is authorized.If the access, or the attempt to access, the thru-dial service is unauthorized, perform the following:

1. If the access is via a mailbox session, change the password for the mailbox. Encourage or force other mailboxes to change their passwords. If the access is via a thru-dial, create an access password or change the current password for that service, as well as other thru-dial services.

2. Review the restriction/permission list for the service and, if required, make the restriction/permission list more restrictive.

3. Remove the service, if necessary.

4. Review, improve and add security measures.

Voice Prompt Maintenance (VPM) Remote Activation (RA)

Introduction

The Voice Prompt Maintenance (VPM) and Remote Activation (RA) utility are part of the Voice Services that

- allow users to update voice prompts for Voice Menus, Announcements and Thru-Dialers
- provide a telephony interface to update these prompts

Remote Activation

- allows users to change Voice Services (Voice Menus, Announcements, Thru-Dial, Time-of-Day, Voice Forms, Fax Information Services) attached to active DNs

Failures in the VPM can cause inability to update voice prompts for Voice Menus, Announcements, and Thru-Dial except by a text interface.

A Class 107 SEER generally contains

- string indicating the routine in which it was generated
- return code from lower level software
- Voice menu, Announcement, Thru-dial, Time-of-day, Fax item or Voice form ID

Reports

10701 Minor Error Action 1

Cause: Problem with playback of a user-recorded voice prompt in a voice menu, Announcement, or Thru-Dial. The Service ID is provided in the SEER.

Impact: User will hear an error prompt. If the user prompt is corrupt, the problem may recur. If not, normal operation will proceed upon user entry.

10702 Minor Error Action 2

Cause: Problem with recording a voice prompt in a voice menu, Announcement, or Thru-Dial. The voice service ID is provided in the SEER.

Impact: User will hear an error prompt. If the user prompt is corrupt, the problem may recur. If not, normal operation will proceed upon user entry.

10703 Minor Error Action 3

Cause: Problem with disconnecting the session by the Voice Prompt Maintenance/ Remote Activation Utility after a problem. This SEER is not caused by the user hanging up.

Impact: User will still have a voice connection.

10704 Critical Error Action 4

Cause: Problem with initializing the session due to inability to locate or open system prompt files. May also be caused by problems initializing voice operations (vxinit) or problems obtaining organization configuration information from the VSS.

Impact: The session will terminate. If the error is not temporary, more attempts to access VPM will fail.

10705 Major Error Action 5

Cause: Internal problem occurred when the software encountered an unexpected situation. This may be a software error.

Impact: User will hear an error prompt in some cases. Normal operation will proceed upon next user command. Problem may recur again if the same situation is encountered.

10706 Major Admin Action 6

Cause: An invalid password was entered three times in succession for a Voice Menu, Announcements or Thru-Dial.

Impact: The user is disconnected after the third invalid password entry. If several of these SEERs appear, this could mean that an unauthorized person is trying to breach security and use the system.

This SEER is the only way the system reports repeated invalid entry into Voice Menu, Announcements, or Thru-Dial.

10707 Minor Error Action 7

Cause: A file operation (open or close) failed. This could be a temporary situation caused by disk errors or by a corrupt file.

Impact: The user will hear a system error prompt in some cases, normal operation will proceed upon next user command. The problem may recur if the same situation is encountered.

10708 Minor Error Action 8

Cause: A voice operation (open or close) failed. This could be a temporary situation caused by voice processor hardware problems. The return code isolates the cause.

Impact: User will hear a system error prompt in some cases, normal operation will proceed upon next user command. If the problem was caused by a fatal voice processor problem, the session is disconnected.

10709 Info Debug Action 9

Cause: The service file is currently being opened by another application.

Impact: The service cannot be updated unless the application holding the file closes it.

10710 Minor Error Action 10

Cause: The service ID is being mapped into a service information address. The service ID may corrupt.

Impact: The session will terminate. User will hear an error prompt.

10711 Info Admin Action 11

Cause: The voice recording of the application displayed in the SEER was changed using Voice Prompt Maintenance. If the service was a Remote Activation change, the VSDN is changed to the new service entered.

Impact: On the next call into this application, the new voice recording will be played (for the Voice Prompt Maintenance change). For a Remote Activation change, the new service will start on the next call.

10713 Info Admin Action 12

Cause: The maximum number of password change attempts was exceeded.

Impact: The update password is not changed.

10714 Info Admin Action 13

Cause: Unable to change UPDATE password in voice service file.

Impact: UPDATE password cannot be changed using Voice Prompt Maintenance.

10715 Info System Action 14

Cause: The Service Application was asked to terminate because the online update is about to begin.

Impact: The caller is disconnected from the current call.

10716 Info Admin Action 15

Cause: The voice service file UPDATE password has been changed by VPM.

Impact: The UPDATE password is changed.

10799 Critical Error Action 16

Cause: The software encountered an unexpected problem. This problem may be caused by "binding startup" procedures.

Impact: The user may hear an error prompt. Normal operation could proceed upon user entry. If not, the session will terminate. If this is not a temporary condition, subsequent attempts to access VPM will fail.

Actions

Action 1 If the problem occurs repeatedly on a single voice service, the voice record may be corrupt, so delete the prompt or menu and recreate it using Voice Services Administration.

Action 2 If this problem occurs repeatedly on a single voice service, the voice record may be corrupt, so delete and recreate the prompt or menu using the text administration interface.

Action 3 Hanging up will restore things to normal. If this error persists, examine other SEERs to locate the source of the problem leading up to the disconnect. If unclear, contact your Nortel Networks support organization.

Action 4 If the problem is caused by specification of an unsupported language in the Voice Services, correct the menu to specify only supported languages.

Action 5 None. The problem should clear itself. If the problem persists, contact your Nortel Networks support organization.

Action 6 The SEER provides a 10-byte string containing the Service ID, a byte giving the calling device, and a string containing the extension from which VPM was accessed. The Service ID and extension are in ASCII, with the first byte indicating the length of the strings, for example, 043**2**3**2**37**3**0 indicates extension "2270". If the calling device is a trunk or attendant console then the extension number is invalid. A calling device of 0 (internal phones) will yield a valid extension number.

Action 7 Look up the return code. If the problem is caused by a full volume, obtain additional storage. If unclear, contact your Nortel Networks support organization.

Action 8 If the situation occurs repeatedly, contact your Nortel Networks support organization.

Action 9 Close the application holding the file or select another service to be updated.

Action 10 Hanging up will restore things to normal.

Action 11 To enable/disable this SEER from printing, consult the voice service application (voice service profile) chapter.

Action 12 The caller should attempt another password change.

Action 13 Contact your Nortel Networks support organization. If requested, the password can still be changed using the Administration terminal.

Action 14 MSM only: no action is required, the caller is terminated from the call and the service will close all opened files.

Action 15 The password change can be confirmed either by dialing the service again or by viewing the results from the service definition menu.

Action 16 If the error persists, contact your Nortel Networks support organization.

Network Administration (NA)

Introduction

Network Administration (NA) lets the system administrator view and modify the networking configuration data for the local and remote sites. In addition, NA provides a site verification test and a facility to reset the networking software.

A Class 108 SEER generally contains a return code from another component such as the network database or directory server.

Reports

10801 Minor Error Action 1

Cause: NA failed to gain access to the network database.

Impact: Administrator cannot view/modify networking configuration.

The text printed after the class and report number identifies the function called and the RC indicates the type of problem.

10802 Minor Error Action 2

Cause: NA failed to gain access to the Network Message Transfer Agent (NMTA).

Impact: Administrator cannot view/modify networking configuration.

10803 Minor Error Action 1

Cause: NA failed to get dynamic information from the terminal (cobra VT).

Impact: Administrator cannot enter inputs from the terminal.

10804 Minor Error Action 1

Cause: NA failed to gain access to the cabinet access method (CM).

Impact: Administrator cannot view/modify networking configuration.

10805 Minor Error Action 1

Cause: NA failed to gain access to the disk data interface (DD).

Impact: Administrator cannot view/modify networking configuration.

10806 Minor Error Action 3

Cause: NA failed to gain access to the message transfer agent (MTA).

Impact: Administrator cannot view/modify networking configuration.

10807 Minor Error Action 4

Cause: NA failed to gain access to the directory server (DR).

Impact: Administrator cannot view/modify networking configuration.

10808 Minor Error Action 5

Cause: An error occurred while using the command line interpreter (CLI).

Impact: Administrator cannot enter inputs from the terminal.

10809 Minor Error Action 1

Cause: An error occurred while using the remote voice services (RVS).

Impact: Administrator cannot view/modify networking configuration.

10810 Minor Error Action 1

Cause: NA failed to gain access to the hardware database (HD).

Impact: Administrator cannot view/modify networking configuration.

10811 Minor Error Action 1

Cause: NA failed to gain access to the administration base (AD).

Impact: Administrator cannot view/modify networking configuration.

Actions

Action 1 Look up the low level return code for specific information and contact your Nortel Networks support organization with the function and return code.

Action 2 Ensure that the system has a valid time and the system has finished rebooting. If the problem persists, contact your Nortel Networks support organization.

Action 3 If the problem persists, call contact your Nortel Networks support organization.

Action 4 If the problem persists, contact your Nortel Networks support organization.

Action 5 If the problem persists, contact your Nortel Networks support organization.

Remote Voice Services (RVS)

Introduction

Remote Voice Services (RVS), also known as screen-based voice session:

- places calls from a voice channel to a DN specified by the user
- enables users to perform, using softkeys, voice operations on voice contained in a form, for example, voice menus or thru-dial voice files
- supports these voice operations: play, record, and delete
- monitors the status of the call connection (for example, user hangs up)

RVS errors can prevent calls from being connected or disconnect calls. Without a call connection, the administrator cannot record or play voice associated with voice menus, announcements or thru-dial voice services.

A Class 109 SEER generally contains a lower-level return code.

Reports

10903 Minor Error Action 1

Cause: An error occurred while processing a call.

1. If the text reads, “The current channel configuration will not allow an outgoing call to <DN #>,” then one of two causes have lead to this:
   a. All idle channels are dedicated to other services.
   b. A configuration error exists for the channels.
2. If the text reads, “Fails to place outgoing call to <Entered DN>,” then an error occurred while processing a call.

Impact: The call will not be made.

10904 Minor Error Action 2

Cause: A tasking error occurred in RVS.

Impact: The call will be disconnected.

10905 Minor Error Action 3

Cause: RVS failed to open or create a voice record in a file, due to a low-level disk problem.

Impact: The call will be disconnected.

10906 Minor Error Action 4

Cause: Errors in recording or playing

Impact: The call will be disconnected.

10907 Minor Error Action 4

Cause: Errors in recording or playing

Impact: The call will be disconnected.

10908 Minor Error Action 5

Cause: Errors in disconnecting.

Impact: Call will be disconnected, and in some cases, the port will reload.

10909 Minor Error Action 6

Cause: Time-out in a voice operation, or VPIO task crashes occurred during a voice session.

Impact: The call will be disconnected.

10910 Minor Error Action 6

Cause: Time-out in a voice operation, or VPIO task crashes occurred during a voice session.

Impact: The call will be disconnected.

10911 Minor Error Action 7

Cause: Error occurred when RVS tried to find a voice size or tried to delete some voice, possibly due to a corrupted file.

Impact: The call will be disconnected.

Actions

Action 1 Case 1a. Dedicate at least one channel for Voice SoftKey (VS) in the CAT table.

Case 1b. Dedicate at least one voice channel on an NVP32 voice card as Voice SoftKey (VS) in the CAT table.

Case 2. Channels are allocated on a hybrid exact-fit / best-fit basis. The criteria consists of

- service/class dedication
- channel type (voice, multimedia)
- channel capabilities (basic, full)
- channel availability

Ensure at least one voice channel has been defined on the system.

Action 2 Try again later.

Action 3 Check surrounding SEERs to identify and fix possible problem. Otherwise, contact your Nortel Networks support organization.

Action 4 Try again later. If condition persists, contact your Nortel Networks support organization.

Action 5 None. The call will be disconnected later.

Action 6 Try again later.

Action 7 Cancel the changes made to the form and try again later. If the problem persists, delete the definition object (service definition, user definition, and so on) and recreate it.

Outcalling Agent (OCA)

Introduction

The Outcalling Agent (OCA) provides remote notification and delivery to non-user services. Failures in the OCA will only affect one call. For most serious problems, a duplicate call may occur.

A Class 110 SEER generally contains message text and a lower level return code.

Reports

11001 Error Admin Action 1

Cause: The OCA has encountered unavailable resources.

Impact: The OCA will not place the call, or a prompt will not be played, or a call will be placed using default RN values.

11004 Minor Admin Action 2

Cause: There is a problem with the voice processor hardware.

Impact: The requested voice operation will not be completed.

11005 Minor Admin Action 3

Cause: The help command was unexpectedly received.

Impact: The help command is ignored because the user is in a state where no help is defined or needed. Temporary data corruption may have occurred.

11006 Minor Admin Action 4

Cause: The system has entered an unknown timeout state.

Impact: The timeout is ignored. The service may be slow in responding. Temporary data corruption may have occurred.

11007 Minor Error Action 5

Cause: The delivery to nonuser message cannot be read because it is a message with a version number greater than the version allowed for this release of software.

Impact: The call will be disconnected.

11008 Minor Admin Action 6

Cause: Problems were encountered while attempting to open a delivery to nonuser message.

Impact: The call will be disconnected.

11009 Minor Admin Action 4

Cause: A request for something which has not been implemented has been received.

Impact: The request is ignored. The service may be slow in responding. Temporary data corruption may have occurred.

11010 Minor Admin Action 7

Cause: An error was encountered while cleaning up resources.

Impact: The operation has not been completed. If the operation was to close a file, that file was not closed properly. If the operation was to disconnect, the session remains in service. Eventually, the service times out and disconnects.

11011 Minor Admin Action 8

Cause: The software encountered an unexpected problem.

Impact: Messages may not be played properly to voice pagers, or incorrect or incomplete digit strings might be transmitted to numeric pagers.

11012 Info Debug No Action

Cause: Reporting an event worthy of noting.

Impact: None

11013 Major Error Action 9

Cause: The OCA is attempting to use an RN administration file which is either corrupt or was not converted.

Impact: RN calls will be made using the default RN administration values. The affected customer number is included in the SEER. The interaction between RN and the target phones or pagers may not be what is desired. The RN may fail and may, or may not, retry.

Actions

Action 1 The error text and return code will identify the unavailable resource. If the SEER text refers to the RN administration utility, use the TOOLS level utility to configure the values. Otherwise contact your Nortel Networks support organization.

Action 2 The return code isolates the cause. Check the voice processor status by running out-of-service diagnostics on each voice card.

Action 3 Check the return code to see if the user is in an invalid state. The problem should clear itself, so no further action is required.

Action 4 None. The problem should clear itself.

Action 5 A software release compatibility problem may have occurred. Contact your Nortel Networks support organization

Action 6 Look up the return code for specific information. If the problem is still unclear, contact your Nortel Networks support organization

Action 7 The error text and return code will identify the unavailable resource. If the error persists, contact your Nortel Networks support organization.

Action 8 The error text and return code will identify the unexpected problem. If the error persists, contact your Nortel Networks support organization.

Action 9 Contact your Nortel Networks support organization.

Voice Forms Service Unit (VFSU)

Introduction

The Voice Forms Service Unit (VFSU) provides two sets of functionality to a user. These are the Voice Forms Caller's Interface and the Transcription Service.

Most VFSU errors affect only one call or user session, unless the error is a symptom of a hardware problem. For serious problems encountered in the Caller's Interface, the call is routed to the Form Revert DN, if available; otherwise to the System Attendant DN. In case of the Transcription Service, a serious problem results in the playing of an error prompt, if possible, and the termination of the session. Recovery of resources is performed in all cases, if possible.

The Class 111 SEER will contain the

- Routine which encountered the problem
- Service type
  - Voice Forms Caller's Interface (VFCI)
  - Voice Forms Transcription service
- Lower level return code
- Form ID
- Response ID (for Transcription Service)

Note: The Class 111 SEER will contain as many of the above diagnostic aids as determined by availability at the time of issuance.

Reports

11101 Major Error Action 1

Cause: Initial resources were not available to start up the service.

Impact: VFSU will not be able to start the requested service. In the case of the Caller's Interface, the call will be transferred to the Form Revert DN if available, otherwise, it will be transferred to the System Attendant DN. In the case of the Transcription Service, an error prompt is played, if possible, and the session is terminated.

11102 Minor Error Action 2

Cause: A Caller's Response file could not be created.

Impact: The Caller's Response is lost and the session is terminated.

11103 Minor Error Action 3

Cause: A request for something which has not been implemented has been received.

Impact: The request is ignored. Service may behave in an unpredictable manner.

11104 Minor Error Action 4

Cause: An error has occurred while trying to play voice.

Impact: The user will not hear the prompt or voice and the session will continue as if playing had succeeded.

11105 Minor Error Action 5

Cause: An error was encountered while cleaning up resources.

Impact: The operation is not completed. If the operation was to close a file, that file is not closed properly. If the operation was to disconnect, the session will remain in service, but the service will eventually time out and disconnect.

11106 Minor Error Action 6

Cause: An attempt to revert the caller has failed.

Impact: The caller will not be transferred to an attendant and the session will be terminated.

11107 Major Error Action 7

Cause: The forms manager has been deemed to have a major problem which prevents further use of this service.

Impact: The user may hear an error prompt after which the session will be disconnected.

11108 Minor Error Action 8

Cause: A problem has occurred while attempting to access a Caller's Response file.

Impact: For the Transcription Service, the response is made inaccessible and the session continues. In the case of the Caller's Interface, the caller is reverted to the Form Revert DN.

11109 Major Error Action 9

Cause: A problem has occurred while attempting to access a Voice Form Definition file.

Impact: For the Transcription Service, an error prompt is played and the session is terminated. In the case of the Caller's Interface, the caller is reverted to the System attendant.

11110 Minor Admin Action 10

Cause: The Form Definition file for a particular session has been found to be out of service.

Impact: For the Transcription Service, an error prompt is played and the session is terminated. In the case of the Caller's Interface, the caller is reverted to the Form Revert DN.

11111 Minor Error Action 2

Cause: A lower level error has been encountered which is beyond control of this service.

Impact: Impact varies depending upon the context in which the SEER is issued. The possible impacts are:

- Error is ignored and the session continues.
- Caller is reverted to Form Revert DN (Caller's Interface).
- Session is terminated.

11112 Minor Error Action 11

Cause: Case 1. Failed to read the traffic record in the system profile.

Case 2. Failed to send OM data to the OM Server.

Impact: Peg data will not be collected for this access. The number of Caller Interface accesses will still be accurate, but the accesses will not be broken down by customer number and by service ID. The number of user initiated reverts will not be available for Caller Interface accesses.

Actions

Action 1 The error text and return code will identify the unavailable resource. Contact your Nortel Networks support organization for further instruction.

Action 2 Examine lower level return code and handle according to SEER documentation for the specified return code. If the return code does not help, contact your Nortel Networks support organization.

Action 3 The problem should clear itself. If the problem persists, contact your Nortel Networks support organization, supplying them with the SEER printout. Try to determine the sequence of commands that were given by the caller to cause the problem.

Action 4 Try to determine the scenario that caused the SEER. Collect all relevant information and contact your Nortel Networks support organization.

Action 5 The error text and return code will identify the problem resource. Contact your Nortel Networks support organization.

Action 6 Ensure that the failing DN has been defined as a valid phone number. If the cause of the problem is still unclear, contact your Nortel Networks support organization.

Action 7 Look for accompanying Forms Manager SEERs and examine SEER documentation for recommended action.

Action 8 Examine the lower level return code and act accordingly. If the problem persists, contact your Nortel Networks support organization.

Action 9 Examine the lower level return code and act accordingly. If the problem persists, contact your Nortel Networks support organization.

Action 10 Ensure that the Form has been fully defined as per Voice Form Editor User's Guide. If the form is intended to be out of service, remove all references to said form.

Action 11 Case 1. Check the return code produced by this SEER. It will point to a lower layer problem. Look for other SEERs with the same class as the return code, and diagnose the problem.

Case 2. This case should be transient and should clear itself up. If this occurs frequently, check the task result or lower level return code which is returned in the SEER. Check for other SEERs related to the OM Server.

Restore and Recovery (RR)

Introduction

Restore and recovery is run after a hard disk failure. This is initiated after booting from the INSTALL/DATA tape. Restore copies the information from a disk-backup or tape-backup onto the new disk. Recovery checks and corrects inconsistencies in the directory, user cabinets, voice menus and voice forms.

The restore and recovery programs are part of the software configuration. These SEERs will only occur when the running from tape. Most lower level return codes would be from BURP (Class 15). If the restore and recovery fails it can be restarted from the beginning. The Meridian Mail system will not operate correctly unless the restore and recovery complete successfully.

Reports

11204 Critical Error Action 1

Cause: An error occurred while trying to clean out messages from the user profiles on restores of single node systems.

Impact: The restore failed.

11205 Critical Error Action 2

Cause: An error occurred copying the prompts from tape to VS2.

Impact: The restore failed.

11206 Critical Error Action 3

Cause: Error reading the features of the system from VS1.

Impact: The restore failed.

11207 Critical Error Action 1

Cause: Could not copy user profiles from volume VS901 or VS902 to the destination user volume.

Impact: The restore failed.

11212 Critical Error Action 1

Cause: An error occurred during the restore of a volume from tape to disk. The return code in the SEER indicates the cause of the problem.

Impact: The restore failed.

11213 Critical Error Action 4

Cause: An error occurred while checking the user cabinets against the directory.

Impact: The restore failed for the specific node.

11214 Critical Error Action 4

Cause: In most circumstances this report indicates that an error occurred while checking the user entries in the directory for matching cabinets.

Impact: The restore failed for the specific node.

11217 Critical Error Action 5

Cause: An error occurred while synchronizing the voice services to the directory.

Impact: The restore failed. This SEER will not stop the recovery process.

11218 Critical Error Action 5

Cause: An error occurred while synchronizing the directory to the voice services.

Impact: The restore failed. This SEER will not stop the recovery process.

11219 Critical Error Action 6

Cause: An error occurred trying to synchronize the voice forms for the system.

Impact: The restore failed.

11225 Critical Error Action 7

Cause: Could not retension a tape.

Impact: The tape is unusable; restore cannot continue. The system may be left in an unusable state.

Actions

Action 1 The return code of the SEER will indicate the cause of the problem. Start the restore from the beginning. If the SEER indicated a problem with the backup tape then an older set of backup tapes should be used for the restore. If problem persists, contact your Nortel Networks support organization.

Action 2 The return code indicates the cause of the problem. This would usually indicate a tape drive with dirty heads, or a faulty prompt tape. Try the operation again. If it fails contact your Nortel Networks support organization.

Action 3 If no errors occurred up to this stage of the restore and recovery, and voice forms were not installed on the system, then this is not a serious error. If voice forms were installed on the system then the restore and recovery will have to be started from the beginning.

Action 4 The restore and recovery will have to be redone for the node that had the error. The return code of the SEER will indicate the cause of the problem. This SEER will not stop the recovery from proceeding.

Action 5 The return code from the SEER will indicate the cause of the problem. This error will only affect the voice services in the system.

Action 6 The return code from the SEER will indicate the cause of the problem. This error will only affect the voice forms in the system.

Action 7 Ensure the correct tape is being used and try the tape again. If problem persists, redo restore with a different set of backup tapes.

Network Dialing Translation (DT)

Introduction

Dialing Translation translates Directory Numbers (DNs) from a public format network that includes a country code (for international dialing only), area code, and local number or ESN format to a dialable format.

Each SMDI system installed with AMIS-A Networking and/or Fax On Demand (call back transmission), and each AML system has the Dialing Translation feature.

The Dialing Translation feature contains a few tables that should be configured according to the system location. The tables must be configured before the system can be used. All of the tables are stored in the Network Database.

A class 115 SEER also usually contains a return code from return code classes such as Network Database, Disk Data Interface (DD), and CLI.

Reports

11501 Major Error Action 1

Cause: NA failed to gain access to the Network Database.

Impact: Administrator cannot view/modify dialing translation.

11502 Major Error Action 1

Cause: Error occurred while using the command line interpreter.

Impact: Administrator cannot view/modify dialing translation.

Actions

Action 1 Look up the low level return code for specific information and contact your Nortel Networks support organization.

List of terms

ACD

See Automatic Call Distribution.

AD

See Administration Base.

AD_TOOLS

Move user utility (TOOLs level).

ad_util

See Administration utility (RSC level).

ADDPOOL

When tasks within Meridian Mail need to communicate with each other, a buffer area is needed for the messages. ADDPOOL, an operating system, memory function, is one of the operations used to configure this buffer area.

Administration Base

AD is a set of routines which provides the capability to read from and write to the personal and organization profiles.

Administration utility

ad_util, a system utility, is a program which provides access to both the system and customer profiles.

AD_TOOLS

This is a system utility.

allocator

This program allocates resources. This is a startlist entry.

AMIS

See Audio Message Interface Specification.

AMISA

AMIS developed for analog message transmission.

AML

See Application Module Link, which was formerly called CSL (Command and Status Link). *See also* SEER Class 25.

Analog Transfer Agent

ATA is a networking software component. *See also* SEER Class 37.

announcement service file

This contains information necessary to support a particular announcement service, for example, passwords, recording length, recording exists, and so on.

Application Module Link

AML formerly called Command and Status Link (CSL) defines the PBX-to-application server connection. In Meridian Mail it is the PBX-Meridian Mail communications link. *See also* SEER Class 25 for further information on this communication software component.

ARGSTRING

See Argument String.

Argument String

ARGSTRING is passed in to the VSS program to indicate startup parameters. This is usually found in the STARTLIST against the VSS entry.

ATA

See Analog Transfer Agent and SEER Class 37.

Audio Message Interface Specification

AMIS is a protocol standard for delivering messages between two voice message systems. This specification developed allows networking among multiple vendors' voice messaging systems.

Audit

Periodic operation, usually nightly, to reclaim system resources or optimize data structures. Audits are performed by the volume server's organization directory.

Automatic Call Distribution

ACD is a queue that routes incoming calls to the voice channels. It is a feature on the PBX that distributes incoming calls among live or automated agent DNs. An ACD queue is provided to hold new calls temporarily until a free agent is available to answer the call. The DN associated with the ACD queue is called ACDDN or Primary DN.

BILLDN

See Billing DN and SEER class 22.

Billing Control Table

Table that maintains a count of the total numbers of MMUI, VMUIF, and Local Voice Users in the system.

Billing DN

BILLDN is the DN to which all toll charges will be billed. This applies to ISN systems only. *See also* SEER class 22.

BKUPSET

Disk backup switch utility (TOOLS level).

BLOCKID

This refers to an encoded disk block address unique within a given volume.

Block records

BRS is a record in the volume server to keep track of disk blocks given out or returned back from applications.

bootrom

Bootup is the firmware that provides hardware diagnostics, loads OS, and also provides some other low level I/O services.

bootup

Bootup is the procedure that boots the system up. Through this procedure, the system will go through various hardware and software diagnostics, load OS to the MSP node from the disk drive, download the OS to other nodes if applicable, and load and start programs on every node. “Up” means all programs have started running.

BOXNUMBER

This is the local mailbox number, less any site or location prefix. The site or location prefix and box number together uniquely identify a mailbox. For example, on a system with Meridian Networking, “Mailbox 63331234” is internally represented as box number 1234 with site prefix 6333. *See also* SEER class 22 and 56.

BRS

See Block records.

buffer pool

This means memory allocated.

BURP

Backup and Restore program (RSC level utility), using tapes or disk (SEER Class 15)

BUSBANG

This is a software program used by Manufacturing and Product Integrity (PI) to load the system bus.

BYTESTREAM

This is a type of text record within a DD file consisting of an unformatted sequence of bytes. *See also* SEER class 22.

Cabinet

A Meridian Mail directory which stores system and user files. A user’s personal cabinet is also known as a “mailbox.”

Cabinet Manager

CM, a file system software component, is a set of routines that provides access and manipulation of cabinets within the hierarchical file system.

Cache

Data stored in RAM (random access memory) instead of on disk. Caches are used to speed up system performance.

Caching

This is a memory resident copy of disk data, used to speed up the data reference to avoid slow disk access.

Called Directory Number

CALLEDDN or CDN is the destination DN called by the caller, that is, the called Directory Number of the party that received the call. For services that were called directly, this is the voice service DN. For the call answering service, this is the originally called DN which was forwarded to Meridian Mail. *See also* SEER classes 22 and 56.

CALLEDDN

See Called Directory Number and SEER classes 22 and 56.

Calling Directory Number

CGN is the DN of the calling party, that is, the DN of the party that originated the call. *See also* SEER class 22.

Call progress status

The current status of a call initiated by Meridian Mail, for example, call ringing, established, busy, or disconnected.

Call progress tone detection

CPTD is a function provided by the voice processor to monitor tones during outgoing calls. This set of functions implemented in 32K voice cards allows the Digital Signal Processor (DSP) to recognize various inbound telephony tones such as ringback, dial tone, busy, fast-busy, reorder, speech, and so on, thus allowing Meridian Mail to make outgoing calls for remote notification. CPTD is usually enabled when Meridian Mail makes a call out on a trunk.

callstate

This is the software state for a call.

CAT

See channel allocation table.

CCA

See Centralized Call Answering and SEER class 56.

CDN

S*ee* Called Directory Number.

CDP

See Coordinated Dialing Plan and SEER class 22.

Centralized Call Answering

CCA is an alternate name for the VMUIF style of voice messaging as implemented in Meridian Mail. As a further reference, *see* SEER class 56.

CGN

See Calling Directory Number and SEER class 22.

Change Mode

CHGMODE is an internal Meridian Mail software instruction which provides file access writes to a software task. *See also* SEER classes 22 and 56.

channel allocation table

The channel allocation table (CAT) defines the DNs, TNs, capabilities, type, and dedicated services for each voice or multimedia channel. It is a collection of one or more forms through which services requiring full or basic capable channels, and voice or multimedia ports can be allocated to a channel, or channels, with the matching criteria. The CAT can also be used to associate channels with common attributes (basic versus full, voice versus multimedia) to the same call distribution queue.

CHECKIN

This means enabling a guest mailbox.

CHGMODE

See Change Mode and SEER classes 22 and 56.

Class

Group of event or error reports (SEERs) which pertain to a particular software component.

CLI

See Command Line Interpreter.

CLID

Calling Line ID. The number of a calling party which is provided to Meridian Mail from the Meridian 1 switch.

clientID

The client ID is a unique identifier for each user on the system. It is handed out by the organization directory and used for administration and for tracking user's disk space usage. Also, each other directory entry type has a unique clientID. *See also* SEER class 31 for further information.

CM

See Cabinet Manager.

COMM

Used in the context of SEER class 105, Voice Services Administration, COMM refers to a code unit (VSA_COMMON) from which common VSA routines are accessed. If a 105 class SEER is generated with COMM in the SEER text, this is a reference to the code unit originating the SEER.

Command and Status Link

CSL refers to the PBX-Meridian Mail communications link. This link is also known as the ISDN/AP link or AML link. *See also* SEER Class 25.

Command Line Interpreter

CLI is a man-machine interface software component that interprets commands typed in an MMI shell.

Coordinated Dialing Plan

CDP is a convention for assigning Directory Numbers, whereby each set of DNs located on the same switch in a network begin with the same leading digits (called a steering code). *See also* SEER class 22.

COS

Class of Service

CPE

See Customer Premise Equipment.

CPTD

See Call progress tone detection.

critical

This is a startlist entry of a restart option. PRM restarts the program after any type of termination.

CSE

Circuit Switch Equipment, a generic reference to the telephone switch. It could also refer to Common status equipment, such as a switch.

CSL

See Command and Status Link. Currently called the ISDN/AP link or AML link. *See also* AML (Application Module Link) and SEER Class 25.

Customer Premise Equipment

CPE is telephone equipment installed at the customer site and not at the Central Office—for example, a Private Branch Exchange (PBX), a private telephone switch).

DATAFILL

Used as a verb, this acronym means to enter data in the Meridian Mail or switch database. Used as a noun, this acronym refers to data in the Meridian Mail or switch database.

DATAFILLED

Used as a verb, this acronym means to enter data necessary to configure an SMDI link.

DATALINK

This is a task that handles the data communication between two networking sites.

datalink task

This is a networking software component.

datatype

This refers to the specific type of data entered against a parameter,(for example, SMDI datatype).

David ESDI Emulation Handler

DEEH is a software program that handles message transfers between the Option 11 switch and Meridian Mail Card Option. *See also* SEER class 68 for further information.

DD

This is a disk software component. *See* Disk to Data access method and SEER class 55.

debugger

This is a software tool used to troubleshoot software problems.

Debugging flag

A field in the system profile that is enabled by designers to acquire more information from a call session.

DEEH

See David ESDI Emulation Handler and SEER class 68.

Delivery to non-user

DNU is the process of calling a phone (usually one that is external to Meridian Mail) and playing a message to a person who is not a Meridian Mail user. DNU can only send messages to non-users. It does not deliver messages to a mailbox or a number of mailboxes, nor to NMTA for a network user(s). *See* SEER class 92 for further information.

Dial Tone

This is the tone heard when a line is taken off-hook. It indicates a switch's readiness to accept digits.

DIAL

The equivalent of the AML Link on Card Option systems.

Digital Signal Processor

DSP is a microprocessor that has been specialized for high performance processing of digitized signals. Meridian Mail uses Gsps to perform functions such as multimedia data compression and expansion, tone recognition, tone generation, and fax protocol processing. For example, it is used by Meridian Mail to play and record voice as well as transmit and receive fax.

Directory Number Update

DNP is the mnemonic for a message on the AML link between Meridian Mail and a Meridian 1 switch. When Meridian Mail is involved in a three-way call, a DNP message is used to inform Meridian Mail that one party has disconnected. It is also used when a two-party call involving Meridian Mail is extended to a third party. *See also* class 22 and 56.

Directory Server

DR is a program that provides access to the organizational directory. It also provides update capabilities. *See* SEER class 31.

DISKDOG

This is a software program used by Manufacturing and Product Integrity (PI) to test and load the SCSI subsystem.

Disk to Data access method

DD is a set of routines that provides access to record oriented files. *See* SEER class 55.

DJDE$

SIDE=NUFRONT

DN

Directory Number

DNP

See Directory Number Update. *See also* class 22 and 56.

DNS

Directory Numbers.

DNU

See Delivery to non-user and SEER class 92.

DR

See Directory Server and SEER Class 31.

DRCB

See Organization directory control block and SEER class 31.

Driver_Id

See Driver Identification number.

Driver Identification number

Driver_Id or Drv_Id is a unique reference identifier for each driver on a node, a driver being a firmware entity that handles every DSP port.

Drv_Id

See Driver Identification number.

DSP

See Digital Signal Processor.

DSP port

Digital signal processor port that is acting as a voice channel or multimedia channel.

DTMF

See Dual-tone multifrequency.

DTR

Digital tone receiver

Dual-tone multifrequency

DTMF is a standard describing the audio properties of the tones generated by keypresses on North American (and other) telephones. *See* Dual-tone multi-frequency. Used loosely, DTMF refers to a keypress on a telephone keypad.

End of Text

ETX is part of the PMSI protocol that signals the end of a complete message. *See* SEER class 71.

Enhanced Serial Data Interface

ESDI is the Serial Data line card on the PBX.

ESBC

Enhanced Single Board Computer, a printed circuit pack (also known as SBC)

ESDI

See Enhanced Serial Data Interface.

ETAS

Emergency Technical Assistance (Northern Telecom)

ETX

See End of Text and SEER class 71.

facsimile

FAX is a process for transmitting printed matter over telephone wires.

FASCII block

A data block, up to 8k in size, used to store ASCII data that is to be transmitted by the DSP to a remote fax machine.

Fax

See facsimile.

Fax block

A data block, up to 8k in size, used to store encoded fax data.

Fax Handler

FH is a library of routines used to transmit and receive faxes. It is called by fax application like Fax-on-Demand. It invokes the VPIO task.

Fax Handler Procedural Interface

FH is a set of routines for receiving and transmitting fax segments. *See* SEER class 81.

Fax Item Maintenance

FIM is a service that allows an administrator to update a fax item definition. *See* SEER class 83.

Fax Printing

FP is a service provided by the OCS and MCAs. It provides callback fax delivery. *See also* SEER class 85.

Fax segment

A sequence of one or more fax blocks with a descriptor record.

FD

See Front Desk Console and GAC.

FH

See Fax Handler Procedural Interface and SEER class 81. This is the fax equivalent of VH. FH also represents Fax Handler. *See* Fax Handler and SEER class 81.

FID

See File identifier.

field-support cabinet

This is a repository of files to be maintained for investigation by field support personnel. This cabinet is primarily used as a result of conversion.

FIFO

First-In-First-Out

File identifier

FID is the file's identifier in the file system. Every Meridian Mail file (including voice messages) is assigned a unique file identifier number.

filesystem

This is the part of the operating system that manages data on disk. It provides a basic filing capability which is used in different ways by application software. Meridian Mail actually uses two file systems: one for program loading and one is optimized for voice messaging. *See also* SEER class 31 for further information.

FIM

See Fax Item Maintenance and SEER class 83.

FM

See Forms Manager multiserver and SEER class 43.

FM_PKG

See Forms Manager Packagemultiserver and SEER class 43.

FMP

See Forms Manager Procedures and SEER class 43.

FMS

See Forms Manager System procedures and SEER class 43.

form information file

This is a file that contains information specific to a form, accessible via voice forms service. It is used by the Forms Manager to keep track of the responses for a particular form. It maintains the First-In-First-Out (FIFO) ordering of the responses.

Forms Manager multiserver

The FM is a program which handles all requests to store, retrieve, or inquire about voice form caller responses. See SEER class 43.

Forms Manager Package

The FM_PKG provides access to a set of commands which allow for the synchronization of the various files and definitions required by the Voice Forms service. See SEER class 43.

Forms Manager Procedures

FMP are a set of interface procedures called by the applications to talk to the Forms Manager. See SEER class 43.

Forms Manager System procedures

FMS are a set of interface procedures called by the backup and restore utility to maintain the integrity of Voice Forms data on disk. See SEER class 43.

forward

FWD is used in one very specialized context in SEER report 3135, item 9.

FP

See Fax Printing and SEER class 85.

Front Desk Console

FD is the software component that handles the GAC and hospitality administration. *See also* GAC.

FWD

See forward. This acronym means forward. It is used in one very specialized context in SEER report 3135, item 9.

GAC

See Guest Administration Console and SEER class 72. This term applies to hospitality systems.

General Purpose platform

GP is a Meridian Mail platform designed for use with switching equipment such as SL-1, SL-100, DMS-100, Supernode, and supported non-Nortel switches (AT&T, ROLM and NEC switches).

Generic telephony interface

GTI is a voicebase software component that provides applications to gain access to call processing functions on different types of switches. *See also* SEER Class 28 for further information.

GP

See General Purpose platform.

GSP

General-purpose Signal voice Processor, the voice processor card used with Meridian SL-100 or Meridian Digital Centrex.

GST

See Guest.

GTI

See Generic telephony interface and SEER Class 28.

GTI Call Progress Status

This is the status of a call, for example, ringing, busy, and so on. *See also* SEER Class 28 for further information.

Guest

GST refers to a mailbox for a hotel guest in the Meridian Hospitality Voice Service system.

Guest Administration Console

A Guest Administration Console (GAC) is the terminal an administrator or operator uses to maintain guest mailboxes, or to monitor the hospitality system status. *See also* SEER class 72.

hardware location

HWLOC is a representation of the location of the specified device within the hardware. For example 0-3-1-2-1 indicates SPM 0, Node 3, Card 1, DSP 2, channel 1.

Hardware maintenance utility

MD_MA is a utility accessible from the ETAS level, which manipulates the hardware database.

hardwired

This refers to a type of system where the voice cables are routed directly to the voicecards. On these systems, a VSS acquires a VPH upon startup and does not release it until it is disabled.

HAS

Hospitality Administration Server (SEER Class 70).

HD

Hardware database (SEER Class 39).

hd_initSearch

This is a hardware database function.

Hospitality Voice Services

HVS is a Meridian Mail feature that provides the voice messaging interface to guests, and also the handling of hospitality functions such as enabling/disabling guest mailboxes. *See* SEER class 70.

HVS

See Hospitality Voice Services and SEER class 70.

hwd

This refers to hardware database.

HWDB

This refers to hardware database.

HWLOC

See hardware location.

HW_MODIFY

Hardware modify utility (TOOLS level).

IDM

See Internal Data Memory.

IDX

This refers to index.

ignore

This is a startlist entry of a restart option. PRM handles an ignore option in the same way as an unload option. *See* ‘unload’.

IMA

Integrated Mailbox Administration

InfoVol

This is a field in the voice forms record in the system profile. It contains the number of the volume where the Voice Form Information files are stored. *See* SEER class 43.

Initial Program Load

IPL is a universal computer term that normally refers to the System Boot. In the Voice Mail context, it refers to the time when an individual program starts up.

Input/output controller

IOC refers to a device or medium that is used to achieve a bidirectional exchange of data.

Integrated Service Digital Network/Application Protocol

ISDN is a protocol interface used with Meridian Mail systems that are connected to Meridian 1 switches, formerly known as CSL. *See also* AML (SEER class 25).

Intelligent Service Node

ISN is the Meridian Mail hardware configuration that is capable of supporting up to 1920 ports. An ISN consists of up to 10 SPM's and is intended for use in Central Office applications.

Internal Data Memory

IDM is a small amount of special internal memory used to store data contained by the DSP. There is only enough IDM to support a small number of drivers in a DSP.

Inter-process communication

IPC is a generic computing term referring to a protocol used by different software tasks for communication. Problems related to any aspect of IPC are normally software bugs, and are not end-user serviceable. *See also* SEER class 22.

IOC

See Input/output controller.

IPC

See Inter-process communication and SEER class 22.

IPL

See Initial Program Load.

ISDN

See Integrated Service Digital Network/Application Protocol. *See also* AML (SEER class 25).

ISDN/AP

Integrated Services Digital Networks/Applications Protocol. *See also* AML (SEER class 25).

ISN

See Intelligent Service Node.

Key

Indexing mechanism employed by the organization directory.

LAPB

See Link access protocol B.

LIFN

LAN interface node

link

This is a communication path.

Link access protocol B

LAPB is a data communication protocol that provides error free data interchange between a DTE and DCE over a single or multiple physical circuit. It is a type of high-speed synchronous protocol used in X.25 data transmission.

LinkID

See Links identification/name. *See also* SEER class 38.

Links identification/name

LinkID is an ID registered with the name server. *See also* SEER class 38.

LNTC

Information given within a SEER to indicate the Locale, Node, Task ID, and Clock Tick that reported the problem.

Locale number

Represents the area in memory in which a program is running.

MA

Maintenance Administrator (SEER Class 61)

Maintenance Busy

MtcBusy is the initial state that a DSP chip is in if it exists in the system.

Man Machine Interface

MMI is the screen-based interface that allows access to Meridian Mail administration screens, maintenance screens, and so on.

Mass storage user program

MUP_PKG is a utility package available to designers either directly or part of BURP to obtain information about the disks on each node. *See also* SEER class 15.

Mass-storage Utility Program

MUP allows the Mass-storage functionalities to be exercised by users at the terminal.

MAT

See Multi-Administration Terminal feature.

MBX

Mailbox

MCA

See Multimedia Outcalling Agent and SEER class 84.

MD

See MISA Driver DD CLI package (ETAS level).

MD_CM

MISA cabinet utility (ETAS level)

MD_DR

Corporate directory utility (ETAS level)

MD_MA

See Hardware maintenance utility (ETAS level).

MD_MT

This is a utility package that allows the designer to examine messages composed by the Meridian Mail users.

Meridian Information Systems Architecture

MISA is the Meridian Mail file system.

Meridian Hospitality Voice Services

MHVS could be the same as HVS, or could also refer to the /1/MHVS cabinet created for hospitality software use. *See* SEER class 70.

Message Transfer

The MT is a server which delivers messages addressed to a series of people or a message which is to be delivered at a certain point in time. How a message is delivered depends on the type of message recipient. A message to a local voice user is deposited into their mailbox. A message to a network user is sent to the Network Message Transfer Agent. A message to a non-user is sent to the Outcalling Server.

Message Transfer Agent

MTA is a task that is responsible for delivering the message created by the user to the recipients. *See also* SEER Class 32 for more information on this networking software component.

Message Waiting Indicator

MWI is a feature of the switch. It indicates the presence of a response to a particular phone via interrupted dial tone, a flashing light on the phone, and so on. Typically this is a LED or neon lamp on the phone set associated with a mailbox. The status of the lamp, when lit, is used to indicate there is a new message or unread message in the mailbox. *See* also SEER class 91.

MHVS

This is the acronym for Meridian Hospitality Voice Services, which is considered the same as Hospitality Voice Services (HVS). *See* Hospitality Voice Services and SEER class 70. *See* also Meridian Hospitality Voice Services.

MI

MASI Interface Server (SEER Class 14)

MISA

See Meridian Information Systems Architecture.

MISA Driver DD CLI package

This MD is a file utility that provides a command line interface to DD routines.

MKCAB

This file system function is a CI command that allows the user to create a cabinet.

MMI

See Man Machine Interface.

MSP

Multi-Server Processor on SPM. This is the node in a Meridian Mail system which has the various server software running on it.

MT

See Message Transfer.

MTA

See Message Transfer Agent and SEER Class 32.

MtcBusy

See Maintenance Busy.

Multi-Administration Terminal feature

MAT was previously known as UAT or User Administration Terminal. In association with the Multi-Administration Terminal feature listed as an available feature on the General

Options form, there can be up to three MATs configured on the system. A MAT provides access to Customer-specific User Administration, Voice Services Administration, and Class of Service Administration.

Multimedia Outcalling Agent

The MCA delivers callback fax deliveries. It receives callback fax delivery requests from the OCS.

Multiple Administration Terminals

This is a feature that allows multiple terminals to have simultaneous access to user administration, voice services administration, and read-only access to class of service.

Multiserver

This is a program that serves multiple users.

MUP

See Mass-storage Utility Program.

MUP_PKG

See Mass storage user program and SEER class 15.

MWI

See Message Waiting Indicator and SEER class 91.

MYID

This is the Operating System, task's identifier.

NA

Network Administration (SEER Class 108)

NAK

See Negative Acknowledgment and SEER class 71.

Name Server

This is an operating system software component.

NDN

See non-delivery notification.

Negative Acknowledgment

NAK signals that the message was not received correctly. *See* also SEER class 71.

NetDb

See Network Database.

NetDN

See Network format Directory Number and SEER class 22.

Netfir

This is the name of the message file.

Network Database

NetDb is a file that contains the definitions of networking sites and related information.

Network Message Transfer Agent

NMTA is a task that handles the delivery of networking messages between two Meridian Mail systems. *See also* SEER Class 36 for further information.

Network format Directory Number

NetDN is the internal format Meridian Mail uses to store DNs. NetDNs can be dialed from a Meridian Mail port, but must be converted to an alternate format if they are to be dialed from the calling DN—for example, in the call-sender feature. NetDNs are also converted before being announced in a voice prompt so that they will be in a recognizable format to users who may be calling in from a different switch in the NMS network, than that containing the Meridian Mail port DNs. *See* SEER class 22.

Network Message Transfer Agent

NMTA or NM are acronyms for networking software components. *See also* SEER Class 36 for more information.

NEWPOOL

When tasks within Meridian Mail need to communicate with each other, a buffer area is needed for the messages. NEWPOOL is an operation used to create a new buffer area for communication.

NEWPOOL TempBuf

This is an operating system memory function.

NM

See Network Message Transfer Agent and SEER Class 36. This is a different version of the acronym NMTA.

nm CallError

This is an entry for the NM task.

NMI

See Non-maskable Interrupt.

NMTA

See Network Message Transfer Agent and SEER Class 36.

non-delivery notification

NDN are system messages that inform the Meridian user, who originated the message, that their composed message cannot be delivered.

Non-maskable Interrupt

NMI is a hardware interrupt that cannot be masked (ignored) by the CPU.
It is often used to reset a CPU.

NVP

Network Voice Processor, the voice processor card used with the SL-1

NWMODEM

This is a type of port assigned to a system's dataports.

OCA

OutCalling Agent (SEER Class 110)

OCS

See Outcalling Server and SEER class 90.

OCS_UTIL

This is a utility that is used to monitor the internal status of the OCS. It is available via the ETAS or RSC access levels if Outcalling or Fax On Demand features are installed. *See also* SEER class 90 for further information.

Octothorpe

This is another name for the pound key on the telephone set (#).

OFS

See Open File Server and SEER Class 13.

OM

Operational Measurements is a software component. See SEER Class 33 for further information.

OM_UTIL

Operational Measurements utility (RSC level)

OOS

See Out of Service.

OOSTESTOVER

See Out of service, off-line test over.

Open File Server

OFS is a server that provides shared caches to the program running on the same node, to speed up read access to frequently used data. It is a disk caching handler: disk data may be cached in memory at the applications' request to speed up subsequent disk read operations. *See also* SEER Class 13 for further information.

Open Transfer Agent

OTA is a task that handles the transmission of a message to the remote system according to the protocol defined by AMIS. *See also* SEER Class 42 for more information on this networking software component.

Organization directory control block

DRCB is a data structure used by Meridian Mail software to access the organization directory and perform operations on it. *See also* SEER class 31 for more information.

Organization Profile

ORGPROF is an internal Meridian Mail database containing configuration information about the system or about one of the customer groups on the system. It is generally used to refer to either the System Profile or a Customer Profile.

ORGPROF

See Organization Profile.

OS

Operating System

OSP

Operating System Program (SEER Class 64)

OTA

See Open Transfer Agent and SEER Class 42.

OTA control block

This is where information is stored for the OTA.

Out of Service

OOS is a state indicating that the device has been disabled and is unavailable for use.

Out of service, offline test over

OOSTESTOVER is a state indicating that the device has passed off-line tests which have been completed.

Outcalling Server

OCS is an entity which controls the placing of calls for RN, DNU and FP. *See also* SEER class 90 for further information.

overlay

This is software loaded into an already running program.

PATCHDR

This is a command (part of VSP_UTIL) that reassociates voice service definition files with their DR entry. The DR entry is updated with the correct FID (file ID) of the file.

PCI

Present Call Information

PCO

See Post Check Out.

Pending Out of Service

POOS is a transitory state between idle and out of service. This state indicates that the device is unloading and will become out of service when it has completed.

PLH

PMS Link Handler (SEER Class 71)

PMS

Property Management System (SEER Class 71)

PMSI

See Property Management System Interface and SEER Class 71.

POOS

See Pending Out of Service.

Post Check Out

PCO is a voice messaging service used by guests to access remaining messages in their mailbox after check out.

PP

Peripheral Processor (SEER Class 26)

PRM

See Program Resource Manager and SEER Class 60.

PRM_CONTROL

This operating system is a program management utility (ETAS level).

PRM_PKG

See Program Resource Manager Package (ETAS level).

Program Resource Manager

PRM is a program which handles the loading, unloading and program error recovery for all Meridian Mail software except for those programs initiated from CLI shells. See SEER class 60.

Program Resource Manager Package

PRM_PKG is a utility package that provides access to the PRM commands from a CLI shell. This utility package allows the designer to control system resources.

Property Management System Interface

PMSI is the protocol used to communicate between a third party PMS system, Meridian Mail, and the Meridian 1 (or another) switch. *See* also SEER Class 71.

RAM

Random access memory

rc

See return code.

Remote Make Busy

RMB is a channel condition when the corresponding agent on the PBX side is Maintenance Busy.

Remote Notification

RN is the process of calling a phone or paging service to indicate to a user that a new message is waiting in their mailbox. *See also* SEER class 93 for further information.

Remote Notification Service

RNS completes the RN process by indicating to the called party that a message is waiting in their mailbox.

Remote Task ID

A Task ID is a 32 bit value that uniquely identifies a Task (for example, a MM program) running on a node within Meridian Mail. A Remote Task ID (RTID) has 32 extra bits added, to uniquely identify the node.

restart

This is a startlist entry of a restart option. PRM restarts the program if it terminated with an exception. PRM does not restart the program it if terminated properly.

return code

rc is a code passed from the lower layers of software to the VFSU indicating the status of the operation that was requested by the VFSU. In most cases, this return code will identify a problem which occurred at a lower level.

Return to Service

RTS is switch terminology to enable a device.

RMB

See Remote Make Busy.

RN

See Remote Notification and SEER class 93.

RNS

See Remote Notification Service.

RSC

Regional Service Craftsperson

RSM

RS-232 Service Module (SEER class 63)

RTC

This refers to Real time clock.

RTID

See Remote Task ID.

RTS

See Return to Service.

RVS

Remote Voice Services (Class SEER109)

SBC

Single Board Computer, a printed circuit pack (also known as ESBC)

schedule

This program is a startlist entry. It is started when another program requests the PRM to start it.

SCSET

Silence Compression setting utility (TOOLS level)

SCSI

See Small Computer System Interface.

SE_PKG

See SEER package.

SE_UTIL

SEER utility (RSC level)

SEER

See System Error and Event Report

SEER package

SE_PKG is a utility package to read and manipulate system error and event reporting. Usually the MMI is used to access SEERs instead of SE_PKG.

Service

SVC is its acronym. This program, which is a startlist entry, provides service to a single user.

Service Peripheral Module

The SPM is the Meridian Mail hardware configuration that is capable of providing up to 192 voice ports.

Shell state

The current state of the software that runs on the voice channel (Class 27 SEERs). See Appendix A, SEER class 27.

siteid

In a networking environment, each site needs to be identified by all other sites. This is the site id that is kept in the network database, and as part of a user's boxAddress. On the local site, the siteid in the boxAddress is zero. *See also* SEER class 31 for more information.

SL-1

Meridian 1 telephone switch formerly marketed as the SL-1 telephone switch.

Small Computer System Interface

SCSI is an industry standard set of interfaces (electrical, connectors, protocol and command sets) for connecting and accessing peripheral devices such as disk and tape. All Meridian Mail disk and tape drives are SCSI drives.

SMDI

Simplified Message Desk Interface. *See* SEER Class 38 for further information on this communication software component.

SPM

See Service Peripheral Module.

SPN

This represents the Signal Processing Node.

SS

SEER Server (SEER Class 35)

Startlist

This is a list of software tasks to be started by the PRM.

Start of Text

STX is the start of a message. *See* also SEER class 71.

STX

See Start of Text and SEER class 71.

SVC

See Service.

Switching voice service

A process where one voice service requests the voice service shell (VSS) to start up another voice service. After the switching is completed, the original voice service completes on its own. For example, a voice menu service switches to voice messaging after the user has entered the menu choice for voice messaging.

SYNCCABINET

This command, which is part of the VSP_UTIL, reassociates voice service definition files with their DR entry. Files with no DR entries are moved to the field support cabinets for further investigation.

System Error and Event Report

SEER is the standard reporting mechanism for system events and errors. A SEER typically consists of 2 or 3 lines describing the system problem and its possible source. SEERs are saved in a file and are optionally printed on a designated printer.

T1FN

This refers to the T1 Interface Node.

T1LH

This refers to the T1 Link Handler.

TASKID

This is a unique identifier assigned by the operating system to each task running in the system.

TASKRESULT

This is the task result code given by the Operating System for inter-task communication.

Telephony Voice Prompt Translation Module

VX is a library of routines that provides for the playing of a voice prompts. The library is in the unit VH_PROCS and it invokes the VPIO task. *See* SEER Class 21.

TELSCAN

The DSP module that monitors the state of an incoming line is called TELSCAN. The module monitors such things as off/on hook status, flash, ring detection, and line seizure.

THRUDIAL

When a person has dialed into Meridian Mail, they have the capability of placing an outgoing call from within their current Meridian Mail session without first hanging up. This is referred to as THRUDIAL.

thru-dialing service file

This contains information necessary to support a particular thru-dial service, (for example, passwords, dial by name, number, or both, greeting recording, and so on).

TIC

Time in centiseconds between production of a SEER and the last reboot of Meridian Mail.

time of day service file

This contains information necessary to route calls to designated services based on the time of day in which the call is answered.

Timeout

TMOUT is the system response time that has extended beyond the time period allocated by the system software, (for example, a certain task failed to complete within a given time interval).

timeslot

This is a slot of time within a frame allocated to a specific channel. The channel uses this allocated timeslot to play voice.

TIMESTAMP

This is an instantaneous view of the time of day.

TK

Voice Toolkit (SEER Class 51)

TKM

Toolkit Master (SEER Class 50)

TLAC

This refers to the Trouble locating and Alarm clearing document.

TMOUT

See Timeout.

TN

This refers to the Terminal Number.

TONEGEN

The TONEGEN command is used to request the VPH to dial digits for an outgoing call.

Traffic

A measurement of the number of incoming and outgoing calls at any given time.

TRF

This refers to traffic on the link.

UART

See Universal Asynchronous Receiver Transmitter and SEER class 71.

UAT

See User Administration Terminal and Multi-Administration Terminal feature.

UBC

This refers to the Universal Bus Controller Card.

UCD

See Uniform Call Distribution.

UI

User Interface (SEER Classes 101, 102 and 103)

Uniform Call Distribution

UCD is a Meridian Digital feature which allows calls to be evenly distributed to a number of predesignated stations known as UCD stations or UCD positions. This feature is used to queue incoming calls to the message desk.

Universal Asynchronous Receiver Transmitter

UART is the device that Meridian Mail uses to communicate with the PMS system and the Meridian 1 switch. *See also* SEER class 71.

unload

This is a startlist entry of a restart option. PRM does not reload the program after it terminates.

User Administration Terminal

UAT in Meridian Mail 10 is referred to as the Multi-Administration Terminal feature or MAT. *See* Multi-Administration Terminal feature.

VBLOCK

See Voice Block.

VCA

See Voice Channel Allocator and SEER Class 34.

VCI

See Voice Count Information and SEER Class 22.

VCM

See Voice Channel Maintenance module and SEER class 41.

VCM_PKG

This is the Voice Channel Maintenance module debugging package.

VFCI

See Voice Forms Caller's Interface and SEER Classes 43 and 111.

VFE

See Voice Form Editor and SEER Class 43.

vff

See Voice Form Information File cabinet and SEER Class 43.

vfr

See Voice Form Response cabinet and SEER Class 43.

VFS

See Voice Forms Services and SEER classes 43 and 111.

VFSU

See Voice Forms Service Unit and SEER Classes 43 and 111.

VFTS

See Voice Forms Transcription Service and SEER Class 111.

VH

See Voice Handler Procedures Interface and SEER Class 20.

VLS

See Voiceless Server and SEER Class 58.

VM

See Voice Messaging and SEER Class 22 or Class 56.

VMAA

Voice Services Configuration/Voice Menus Applications Administration (VSC/VMAA) were former names for Voice Services Administration (VSA). *See* Voice Services Administration and SEER class 105 for more information.

VMU

See Voice Menu and SEER class 104.

VMUIF

See Voice Messaging User Interface Forum and SEER classes 22 and 56.

Voice block

VBLOCK is an 8kbyte sized block of voice data.

Voice Channel Allocator

VCA is a voicebase software component. *See* SEER Class 34 for further information.

Voice Channel Maintenance module

VCM is the Meridian Mail component which performs maintenance commands on various based devices. *See also* SEER class 41 for further information.

Voice Count Information

VCI is a data message sent from Meridian Mail to a hotel's Property Management System computer. This message contains a count of the number of voice messages in a user's mailbox. *See also* SEER Class 22.

Voice/Fax Handler VPH Interface

VPIO provides an interface between the application layer and the VPH layer. *See also* SEER Class 24.

Voice Form Editor

The VFE is an MMI overlay which allows the administrator to create and maintain Voice Form definitions. *See* SEER Class 43.

Voice Form Information File cabinet

VFF is a cabinet on volume “InfoVol” where the Voice Form Information files are stored. *See* SEER Class 43.

Voice Form Response cabinet

vfr is a cabinet on all user volumes on a Meridian Mail system. It is where the responses left by a VFCI session are stored.

voice form service file

This file contains information necessary to support a particular voice form service.

Voice Forms Caller’s Interface

The VFCI is a service that provides the teleset interface to allow a caller to dial into a Voice Form and leave a response. *See* SEER Classes 43 and 111.

Voice Forms Service Unit

VFSU provides both the VFCI and VFTS services. *See* SEER Classes 43 and 111.

Voice Forms Services

VFS is used as an umbrella term for VFE, VFCI and VFTS. This provides both the VFCI and VFTS services. *See* SEER classes 43 and 111.

Voice Forms Transcription Service

This VFTS is a service that provides the teleset interface to allow the person responsible for transcribing Voice Form responses to retrieve the responses left by the VFCI. *See* SEER Class 111.

Voice Handler Procedures Interface

VH is a set of routines that provides access and control to voice records and voice segments. See SEER Class 20 for further information on this voicebase software component.

Voice Menu

VMU is a single piece of software that contains Announcements, Time-of-day services, and Fax Information Service (FIS). *See also* SEER class 104.

Voice Messaging

VM may refer to the Voice Messaging service or Call Answering, Express Messaging, Hospitality Voice Messaging, guest Voice Messaging, Post-Check-Out services, or the software which provides these services. *See also* SEER Classes 22 and 56.

Voice Messaging User Interface Forum

VMUIF is an industry group responsible for describing a standard voice messaging user interface. VMUIF is also used to refer to the voice messaging user interface specified by this group. *See* SEER classes 22 and 56 as a further reference.

Voice Only Message

VOM is synonymous with a voice message.

Voice Only Messaging, Peripheral Processor handler

VOM_PP is the software component that manages the Peripheral Processors (also known as DSPs) in the Voice Messaging system.

Voice Port

All Meridian Mail features except for fax, use voice ports. A distinction is made between voice ports and Multimedia ports, since multimedia ports require additional processing capabilities.

Voice Processor card

VP generally refers to the voice processor cards (NVP, GSP, VP12, and so on). This is a generic term referring to any card that contains DSP chips and provides Meridian Mail voice ports.

Voice Processor Handler

The VPH or VPHDLR is a program that runs on all nodes in a system that contains Voice Processor cards. The VPH transfers messages between DSPs and applications, initiates data transfers to and from the disk, and performs 2500 set emulation for non-AML systems. *See also* SEER class 24.

Voice Processor Input/Output

VPIO is the task in the VSS that implements the Play Prompt, Record Voice, Transmit Fax commands, and so on. called from application code like Voice Messaging, Voice Menus, and so on. The Application uses the VPIO indirectly by making calls to VX_PROCS, FH_PROCS and VH_PROCS.

Voice Prompt Maintenance

VPM is a voice service utility that allows users to update voice prompts for Voice Menus, Announcements and Thru-Dialers. It also provides a telephony interface to update these prompts. For further information, *see* SEER Class 107.

Voice service

A VS is any application that is started by the voice service shell (VSS).

Voice Service Shell

VSS is a software program that runs on every single voice channel in the system that provides Telephony interface to voice services such as Voice Messaging, Voice Menus, AMIS, and so on. *See also* SEER Class 27 for further information on this voicebase software component.

Voice service task

A software program that will run when a voice service is started.

voice services configuration

This term is no longer used in Meridian Mail 9. It was previously used to refer to an MMI menu to access CAT, VSDN table, and voice services profile.

Voice Services Directory Number

VSDN is a number associated with a particular service in the Voice Services DN table. These numbers are administered from the VSDN Table. A VSDN is the number dialed to gain direct access to a service.

Voice Services Administration

VSA was previously referred to as Voice Services Configuration/Voice Menus Applications Administration (VSC/VMAA). VSA is a collection of administration forms and menus in support of the Voice Services Profile, Announcement Definitions, Thru-Dial Definitions, Time-of-Day Control Definitions, Voice Menu Definitions, the VSDN table, and if installed, Fax Item Definitions. *See also* SEER class 105 for further information.

voice-services cabinet

This is a repository of voice services definition files.

Voice Services Configuration

Voice Services Configuration/Voice Menus Applications Administration VSC/VMAA) were former names for Voice Services Administration (VSA). VSC consisted of forms and

menus in support of the Voice Services Profile, the VSDN table, and the Channel Allocation Table. In MM9, the Channel Allocation Table has been relocated to System Status and Maintenance to facilitate ease of use when administering DSP ports (or T1 channels on the MSM). S*ee also* SEER class 105 for more information.

Voice SoftKey

VS is a term used to describe an MMI screen object or key that can be used to call out to a DN for the purpose of playing or recording a voice prompt.

Voiceless Server

The Voiceless Server is a multiserver which provides responses to multiple requests. VLS supports multiple simultaneous sessions for updating customer screens.

Volume Server

The VS is a software program that runs when a voice service is started. It is a multiserver that arbitrates access to files and manages a list of free blocks. *See* SEER class 11.

Volume Server Mass-storage Utility Program

VSMUP (also called VS/MASI utility) is a combination of Volume Server and Mass-storage utilities that allows both of these functionalities to be exercised interactively by the user.

VOM

See Voice Only Message.

VOM_PP

See Voice Only Messaging, Peripheral Processor handler.

VP

See Voice Processor card.

VPD

Voice Processor Diagnostics (SEER Class 62)

VPE

See Voice Form Editor (SEER Class 43).

VPH

See Voice Processor Handler; same as VPHDLR. *See also* SEER Class 24.

VPHDLR

See Voice Processor Handler, same as VPH or VPHDLR. *See also* SEER Class 24.

VPIO

See Voice/Fax Handler VPH Interface and SEER Class 24. *See also* Voice Processor Input/Output.

VPM

See Voice Prompt Maintenance and SEER Class 107.

VS

See Voice SoftKey.

VS

See Volume Server and SEER Class 11.

VSA

See Voice Services Administration and SEER class 105.

VSC

Voice Services Configuration/Voice Menus Applications Administration VSC/VMAA) were former names for Voice Services Administration (VSA). See Voice Services Configuration and Voice Services Administration. S*ee also* SEER class 105 for more information.

VSDN

See Voice Services Directory Number.

VSH

See Voice Services Shell and SEER classes 22 and 56.

VSMP

This Volume server, software component is a utility package that allows the designer to do disk operations.

VSMUP

See Volume Server Mass-storage Utility Program. This is also called VS/MASI utility (ETAS level).

VSn

This is a semantics used to indicate a particular Volume Server where “n” is the volume number. Typical values for “n” are 1, 2, 202, 203, 204.

VSN

See Volume Server Mass-storage Utility Program. This is also called VS/MASI utility (ETAS level).

VSP_UTIL

This is a utility accessible from the ETAS level, that provides functions (PATCHDR, SYNCCABINET) to tidy the voice services cabinet.

VSProcs

This is the Volume Server procedural interface layer supplied by the Volume Server. Applications make use of the procedure interface to exercise Volume Server functionalities.

VSS

See Voice Service Shell and SEER Class 27.

VSS heap

This is system memory allocated for the VSS (Voice Base Service Shell). *See also* SEER Class 27.

VT

A terminal.

VX

See Telephony Voice Prompt Translation Module and SEER Class 21.

VX_INIT

This is one of the VX routines called by the application. It is usually called at the beginning of a session and is used to allocate memory.

warmstart

If the VCM completes unexpectedly, it will be started again. Anytime the VCM is started while the system is up, it performs a warmstart. During a warmstart, the VCM will collect information for known devices.

XCabinet

This is a type of Meridian Mail hardware platform. It is a free-standing non-modular hardware cabinet that can hold up to 5 Meridian Mail nodes.

XLA

This refers to Translation. It is used in the CO environment only.

Appendix A

Error/Return codes

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MISA Error Codes

I/O Error Results (Helix IO results—IO Error Class)

501	Mixing I/O operation types (for example, READLN, BLOCKREAD)
502	Resource limit reached
520	Illegal character written to terminal driver
530	Out of bounds
540	Attempting I/O operation on unopened file
541	File already open
542	File not committable
543	Illegal attempt to seek
544	Bad file set ID
545	Server not found
546	Operation not allowed across file systems
547	Already logged on
548	Client helix resource limit
549	Value overflow
551	Accept timeout
554	Invalid task ID
555	Reply error - accepting task died
557	Invalid time given to WAITTIME
559	Initiate or re-initiate error
565	Pool error
567	Mini task tried to initiate another task
571	No appropriate buffer for tasking operation
572	No transmit buffer, network overloaded
573	Invoker stack overflow
574	Invalid push/pull parameters
575	Parameter mismatch in remote operation
576	Entry not found in remote operation
577	Remote communication problem
578	trLocale
579	Bad event passed to SetTimer
580	No control blocks
581	Server accept time-out
584	Bad task
600	Mismatch in server/client interface
601	Bad pathname
602	File not found
603	Cannot create
604	Attempt to create file with duplicate name
605	Bad address
606	I/O operation attempted outside file limits

607	Mode conflict
608	Bad object type
609	Access denied
610	Invalid password
611	Server does not support command
612	Device off-line, could not communicate
613	Server resource limit
614	Parity error reading data from server
615	Disk write-protected
616	No directory
617	Attempt to write read-only file
618	Bad access mode
619	Bad remote pointer
620	Transaction time-out on close/commit of file set
621	Date not set - attempted file commit with no time
630	No directory on floppy
631	Too many files on floppy
632	No room on volume
633	New volume mounted
634	Time-out on volume
640	Serious error level
648	Invalid site address
649	Protocol error between communication servers
650	Communication link failure
651	Remote site failure
652	FID not recognized by server
653	Software consistency check failed
654	File set transaction ID invalid
655	Bad volume ID in FID
656	dpares field input non-zero
657	Invalid UNIX object type
658	File exists already
659	Source pathname invalid
660	Illegal parameter
661	Destination pathname invalid
662	Bad volume ID in destination FID
663	Invalid input parameter
664	Bad password input
665	Bad volume control parameter
666	Invalid agent ID on logout
667	No std delete of directory
668	Bad instance key
669	Read error in user data

670	Write error in user data
671	Bad agent or object task ID
672	Bad command length
673	Bad volume ID in source FID
674	Permission denied
675	Bad block count
676	Bad sequence number
677	FOS data timeout

SEER return codes

Introduction

When the system encounters an abnormal or irregular situation in a processing routine, a return code is issued.

The return code is a 3- or 4-digit numeric code which provides a key to isolate the cause of an exception or error condition. A list of return codes is provided in this appendix, and an explanatory message appears beside each one to describe the error and perhaps suggest a solution.

Sometimes the return codes appear in generic SEERs messages. By looking up the return code in this appendix, you can use the information to identify and solve the error condition.

10—Disk Data Interface (DD)

1000 Insufficient memory space in heap to perform the function
1001 File too big to be opened using supplied advice
1002 File is corrupted
1003 Record not found
1004 File has grown to its maximum size
1005 Not implemented
1006 Function does not work at EOF
1007 Attempt to open non-existent or destroyed file
1008 Bad parameters passed to DD function
1009 Attempt to open file with no block table
1010 Attempt to align FCBs of different files
1011 Function called on unopened or uncreated file
1012 FCB is already being used or not initialized to nil before first use
1013 Maximum FCB links limit exceeded
1014 DD internal error
1015 Attempt to access data outside record boundary
1016 Attempt to access block outside block sequence boundary
1017 Attempt to update a read-only file instance
1018 Block sequence operation attempted on nonblock sequence record
1019 Lock time-out
1020 Attempt to insert wrong media into BS
1021 Cannot upgrade the mode of this file

11—Volume Server (VS)

1101 Tasking error
1102 File is already closed

1103	Server full—no free blocks on disk volume
1104	Invalid block ID received from client
1105	Server not found for volume
1106	Attempt to update a file by multiple programs
1107	Maximum number of files for VS volume has been opened
1108	VS limit for number of queues has been reached
1109	VS limit for number of clients has been reached
1110	File opened too long in quick RW mode
1111	Invalid FID passed in
1112	Attempt to open file using NIL taskID
1113	Attempted illegal function
1115	Rls; corrupt block ID buffer
1116	Get; corrupt block ID buffer
1117	Invalid media specified
1118	Internal limit; max BRs
1119	Attempt to write to OFS
1120	Failed to initiate MI_SERVER I/F
1121	Failed to logon to MI_SERVER
1122	Bad parameters or argstring
1123	OF server crashed
1124	No memory for server
1125	Internal limit; max OutBRs
1126	Vol ID mismatch
1127	Bad Key
1128	Too many files open in qRW mode
1129	Control function conflict
1130	Disk/MASI/MI_SERVER Error
1131	Could not write system block
1132	Normal audit
1133	Bitmap is damaged
1134	Startup error
1135	Internal failure
1136	User has exceeded allocated disk space
1137	User has passed in a bad client ID
1138	Could not write SR table to disk
1139	Internal limit: Maximum client IDs
1140	Write-protected
1141	Error during voice volume compress
1142	Backup volume out of space during on-line backup
1143	Server table locked too long by client s/w
1144	vs_e File Unknown
1145	Too many open file servers registered with VS
1146	Audit failed

1147 Task which had a file open died without closing the file
1148 Error during online backup
1149 Normal backup
1150 Client holds obsolete file view too long
1151 Error invoking OFS
1152 Block mismatch in shadow disk audit
1153 Disk not shadowed
1154 Audit not done yet
1155 The VS Auditor could not send Message Trace specific information to OM

12—Cabinet Access Method (CM)

1220 notACab; target file is not a cabinet
1221 notAllowed; insufficient access rights for requested operation
1222 noMemory: client-provided heap space is too small
1223 badPath: PathName is not valid
1224 notFound: the requested target was not found
1225 limitReached: internal CM limit encountered
1226 Bad index for file insertion
1227 Menu not allowed to be opened for file insertion
1228 Sub-mailbox counter entry not found
1250 Inconsistent: cabinet file appears to be inconsistent
1251 badVersion: incompatible versions of cabinet and CM
1280 badParm: input parameter has illegal value
1281 notImplemented: Phase II feature
1282 Defect: logic error encountered

13—Open File Server (OFS)

1301 No memory available for OFS cache
1302 Bad parameters passed to OFS
1303 Tasking error talking to VS
1304 Error from VS
1305 Error during loading of shared memory file
1306 Shared memory file size has changed
1308 Read misrouted to OFS by VS
1309 Tasking error pushing to client
1310 OFS startup error

14—MI Server and Interface (MI)

1410 DCB to SCSI driver invalid
1411 SCSI internal queue full
1412 SCSI driver is locked, try alternate node
1413 SCSI driver error, or for sd_cRD2 then error on primary disk read

1414	Error for sd_cRD2 on shadowed disk read
1415	Error for sd_cRD2 on primary and shadowed disk
1420	Problem executing MI operations
1430	mi_procs tasking error with mi_server
1434	mi_procs control tasking error with mi_server
1435	mup_pkg info tasking error with mi_server
1440	Internal segAlloc failed
1441	Internal segAlloc failed
1442	Internal segAlloc failed
1445	Client’s read buffer address was bad
1446	Client’s write buffer address was bad
1452	Requested mi_server does not exist
1453	Specified volume does not exist
1454	Insufficient contiguous space on disk
1455	Invalid transfer length
1456	Invalid starting address
1457	Task error on data push
1458	Task error on data pull
1459	Volume of specified name exists
1460	Exceeded size of volume table
1461	Specified block size is invalid
1463	Control block corrupt or uninitialized
1464	Configured size provided is out of bounds
1465	Sanity test failed
1466	mi layer is locked
1467	Unknown error returned from SCSI layer
1469	Memory segment already exists
1470	Disk not defined in internal mi table
1471	Defer queue has been reset
1472	Internal mi table has been corrupted
1473	Internal volume table has been corrupted
1474	Invalid control code for control entry
1475	Task error on data push
1476	Task error on data pull
1477	Tasking error waiting for operation
1478	Tasking error waiting for operation
1479	Tasking error waiting for operation
1480	Internal volume table could not be processed
1481	No hardware up for alternate node rendezvous
1482	Ticket volume index was out of range on read
1483	Ticket volume index was out of range on write
1484	Volume index out of bounds in FindVolIndex
1485	Volume index out of bounds in GenVolTable

1486 Bad priority to mi_ReadDisk
1487 Bad priority to mi_WriteDisk
1488 Could not Segalloc for MICB in mi_tools
1489 Range error in ReadDisk or WriteDisk
1490 Read from SCSI layer timed out
1491 Write to SCSI layer timed out
1492 Defer queues in use mismatch with counter

15—Backup and Restore Program (BURP)

1501 Recovered error from tape SCSI driver
1502 Tape drive can not be accessed or cartridge not inserted
1503 Flaw in the tape medium or heads are dirty
1504 Tape hardware error
1506 SCSI bus was reset
1507 Tape cartridge is write protected or wrong type
1508 No data found on tape
1511 Tape drive aborted SCSI command
1513 End of tape reached without writing all the data
1517 Timeout during tape operation
1518 SCSI tape driver error
1519 No tape drive found for tape operation
1533 End of media detected
1534 End of file detected
1535 Error reading disk during tape backup
1536 Could not find source volume for restore
1537 Could not open source volume for restore
1538 Could not find destination volume for restore
1539 Unexpected error from the tape SCSI driver
1540 Error during tape backup
1541 Error during disk backup
1542 Error acquiring memory for backup or restore operation
1543 Error initiating backup task
1544 Tasking error trying to inform client of completion
1545 Could not open destination cabinet to copy profile
1546 Volume requested does not exist
1547 Error creating the destination volume for disk backup
1548 Error obtaining statistics for volume
1549 Disk read error during tape backup
1550 Error deleting the temporary online backup volume
1551 Tasking error checking to see if user wanted to abort backup
1552 Volume server for an online backup not up
1553 Tasking error communicating with backup task

1554 Error copying a user profile during a partial backup or restore
1555 Too many backup tasks running
1557 Backup task could not locate the volume to be restored on the tape
1558 Tasking error informing client of a backup error
1559 Error creating heap for user profile backup
1560 Error creating heap for backup task
1561 Error registering the backup task
1562 Offline backup attempted when volume is online
1563 Error verifying the volume on disk
1564 Recoverable media error during tape backup
1566 Bad or unknown source volume name
1567 Wrong version of tape backup
1568 Tape and disk volume sizes do not match
1569 Block sizes on disk and tape do not match
1570 Not the first backup tape
1571 Disk read error patching volume from online backup
1572 Disk write error patching volume from online backup
1573 Time stamp for online backup differs more than expected
1574 Invalid root block in backup volume while patching online backup
1575 Tasking error while prompting for a new tape
1576 Tasking error talking to backup task
1577 Error shutting down the profile backup volume
1578 Error starting the profile backup volume
1579 Voice volume not on tape
1580 Backup volume not on tape
1581 Tape drive locked
1583 Error reading tape
1584 Error writing to disk
1585 Error reading disk
1586 Error reading disk during a disk-to-disk copy
1587 Error writing to disk during a disk-to-disk copy
1588 Error during disk-to-disk copy
1589 Error during VSRESTORE command
1590 Tape headers do not match
1591 Tape out of sequence
1592 Tape time stamps do not match
1593 Tape block does not overlap previous tape
1594 Previous backup task still exists
1596 Operation aborted by user

16—System Operation (SYSOP)

1600 Information only
1601 Error closing file

1602	Error reading from file
1603	Error writing to file
1604	Error searching for a data token in file
1605	Error starting task described in SEER
1608	Error shutting down volume server
1609	Error opening sc_seer.data file
1610	Error shutting down helix server
1611	Error auditing volume
1612	Too many retries, operation aborted
1613	Invalid filter type
1614	Invalid token index
1615	Error copying helix file
1616	Error creating hardware database
1617	Error opening hardware database
1618	Error closing hardware database
1619	Error adding component to hardware database
1620	Error initializing a search in hardware database
1621	Error searching hardware database
1622	Error closing dd file
1623	Error creating dd record
1624	Error locating:RAM or:BOOT100 server
1625	Error writing dd file
1626	Error reading CPTD record
1627	Error obtaining FID for cabinet manager
1628	Error opening cabinet
1629	Error copying cabinet file
1630	Error closing cabinet
1631	Error adding file into cabinet
1632	Error obtaining FIR from path name
1633	Error in IP address format
1634	Error in IP address format
1635	Error in IP address format
1636	Error obtaining system information from PRM
1637	Error initiating audit on volume
1638	Error waiting for audit to complete on volume
1639	Error writing operating system to disk
1640	Error initializing MI control block on disk
1641	Error configuring disk size
1643	Error loading operating system to remote nodes
1645	Error copying language from tape
1646	Error finding CPTD record
1647	Error priming the DR
1648	Error opening file

1649	Error allocating segment in memory
1650	Error creating heap
1651	Error modifying a component in hardware database
1652	Error creating MI volume
1653	Error accessing MI volume
1654	Error formatting volume
1655	Disks too small for number of hours
1656	Version on disk does not match version on tape
1657	Cache volumes not created
1658	Disk not accessible to node
1660	Error extracting GAC data port names
1661	Error obtaining VS statistics
1662	Error shutting down the DR server
1663	Error auditing the DR server
1664	Error waiting for DR audit to complete
1665	Error verifying user cabinets to DR
1666	Error compressing volume
1667	Compressed volume is incorrect size
1668	Error changing the size of a volume
1669	Error expanding the size of a volume
1670	Error obtaining VS operational measurements
1671	Error searching for feature
1672	Error copying helix file
1673	Error creating DSP file
1674	Error obtaining MI server statistics
1675	Error determining node number for disk
1676	Error creating language record
1677	Error initializing network database
1679	Error determining free space in volume
1680	Error shutting down VOLCONTROL task
1681	Error shutting down NODEVOL task
1683	Error deleting helix file
1684	Error starting up the DR server
1685	DR failed sanity check
1686	Error waiting for task to start
1687	Error waiting for task to shut down
1689	Error determining file size
1690	Error opening file
1691	Error starting PRM
1692	No heap available for determining nodes
1693	Error determining nodes in system
1694	Error changing password to default
1695	Error searching for boot file names

1696 Error adding system profile
1697 Error adding first customer profile
1698 Insufficient space on any volume to move Voice Services
1699 Incorrect fill type in sc_FillNodeList

17—System Operation (SYSOP)

1701 Invalid system type in cardloc.data
1702 Unsupported hardware component type for sc_getHWdata
1703 User aborted moving of Voice Services to another volume
1704 Error moving Voice Services to another volume
1705 Error writing billing control table
1708 Moving of Voice Services successfully completed
1709 Error adding switch records
1713 Error moving Voice Services cabinet
1714 Error opening cabinet in moving Voice Services
1715 Error finding a Voice Service
1716 Error moving a Voice Service
1719 Number of nodes cannot be reduced
1720 Error obtaining the UAT data port names
1721 Error adjusting volume server parameters
1722 Error adjusting users on a volume server
1723 Error syncing voice service definitions
1724 Error updating DR for voice service definitions
1725 Error syncing voice form for a given volume
1726 Insufficient space on disk for the requested number of languages
1733 Error retensioning tape
1734 Error building LIFN node
1735 System already has maximum number of languages
1736 Error opening source cabinet
1737 Error opening destination cabinet
1738 Error determining if file exists
1739 Error deleting Voice Services cabinet
1740 Invalid move of Voice Services on Option 11
1741 Error loading disk utilities onto node
1742 Error removing disk utilities from node
1743 Error obtaining disk information
1744 Error enabling disk seer reporting
1745 Error during disk operation
1746 Error in task or disk operation
1747 Error obtaining disk mirroring information
1748 Error registering VOLCONTROL task
1749 Error locating NODEVOL task

1750 Error locating NODEVOL task
1751 Task error sending to NODEVOL task
1752 Task error accepting from NODEVOL task
1753 Error finding task for de-registration
1754 Error initializing VOLCONTROL task
1755 Error creating buffers for VOLCONTROL task
1756 Error logging on to helix server
1757 Insufficient heap to allocate storage
1779 Error resetting node
1784 No SBC card on Node 1
1785 Cannot find component
1786 Error sending volume
1787 Error sending volume operation
1788 Error receiving reply from volume operation
1789 Disks not mirrored
1790 User aborted breaking mirror operation
1791 User elected to continue without backup disks
1792 Error initiating loading of LIFN RAM disk
1793 Invalid port specified
1794 Error getting keycode from sc_keycode
1795 Failed to read serial number from Meridian 1 side
1796 Error reading font data file (FONTFILE)
1797 Feature bit in keycode invalid
1798 Error creating font record
1799 You may not expand to include HVS

18—Bus Controller Diagnostics (BCD)

1801 Bus controller diagnostics started
1802 Bus controller diagnostics passed
1803 Bus controller diagnostics failed

19—File Server Pascal Utilities (FS Tools)

1901 Server is up; it should be down
1902 Text volume size is too small to format
1903 NewMaxSR is too small for MaxSR used
1904 New volume size < old volume size in expand
1905 Helix file does not have MISA data
1906 MISA destination file already exists
1907 Helix file has bad block sequence
1908 Bad volume number in pathname, /nnn/...
1909 Could not open cabinet
1910 Could not allocate segment
1911 Could not get heap

1912 Error returned from rendezvous
1913 Could not log onto server
1914 Compress size was actually an expand
1915 Inadequate free space in volume to compress to requested size.

20—Voice Handler (VH)

2000 No memory available to perform the function
2001 Integrity failure
2002 Bad command sequence
2003 Bad parameter has been passed to the function
2004 Operation occurred in a bad state
2005 Software problem in VH
2010 Voice record is neither opened or created
2011 Empty voice segment
2012 This record is not a voice record
2013 Bad paragraph
2015 Bad prompt set was submitted by the application
2016 Bad session ID
2020 Command queue is full
2021 Command queue is empty
2022 Prompt queue is full
2023 Prompt queue is empty
2030 Cannot skip backward before the beginning of a voice segment
2040 VPTime-out; voice compressor has not replied within a set time
2041 Voice processor device handler error has occurred
2042 Lost silence message
2043 Play request for voice data which is bad or non-existent
2050 End of voice segment
2051 Prompt has ended
2052 Recording has exceeded set time limit
2053 Bad spoken name
2054 Time-out occurred due to long silence
2060 Problem setting playback speed
2090 Tasking error with respect to vh_TaskVPIO
2091 Tasking error (OnError invoked)
2099 Non-VH error

21—Voice Prompt (VX)

2101 Input not found for variable field
2102 Invalid data input to variable field of template
2103 Template ID passed by application out-of-range
2104 Failure has occurred in vx_init function

2105 Failure has occurred in the TransField function
2106 Failure has occurred in the TransPrompt function
2107 Failure has occurred in one of the PlayXFld functions
2108 Invalid data found in field component record
2109 Invalid data found in template definition record
2110 No memory available to perform the function

22—Voice Messaging (VM)

2201 Playing problem
2204 Record problem
2206 Reply problem
2207 Play envelope problem
2208 Forward problem
2209 Reply all problem
2210 Compose problem
2212 Send problem
2213 Login problem
2214 Greeting problem
2215 Disconnect problem
2217 Call sender problem
2218 Attendant problem
2221 Change password problem
2222 Spoken name problem
2223 Personal distribution list problem
2225 Creating a message
2226 Adding a message
2227 Opening a message
2228 Updating a message
2229 Altering a message
2230 Closing a message
2231 Deleting a message
2232 Initial resources not available
2233 Could not clean-up resources
2234 Failed to turn on Message Waiting Indicator
2235 Entry called out of synchronization
2236 Call answering problems
2237 Code does not handle all possibilities
2238 No additional information is available
2239 Problem skipping backward
2250 Express messaging set-up failed
2251 Extension dialing request failed
2253 Unable to get sent digit
2254 Message tagging failed
2255 Unable to play address

2256 Problem while name addressing
2257 Problem in remote notification administration
2258 Problem in Changeable Operator Assistance Number Service
2259 No memory available to perform the function
2260 User's mailbox is full
2261 Inconsistent data found on disk
2262 Mailbox hacking in progress
2263 Failed to convert personal distribution list

24—Voice Processor Handler (VPH)

2401 Tasking error on sending to VPIO
2402 Driver time-out
2403 Disk I/O time-out
2405 DSP Put command error
2406 Tasking error on send to application
2407 Invalid message from driver
2408 RCD buffer not cleared
2409 Long int error in updating playback buffer
2410 RCD buffers b/w handler & driver out of synchronization
2411 Cannot retrieve data from DSP data queue
2412 Cannot retrieve data from driver message queue
2413 DD error on vs_ReadBlock request
2414 DD error on vs_WriteBlock request
2417 Onerror clause invoked after send to VPIO
2418 Onerror clause invoked after send to application
2419 Driver data underflow-playback
2420 Driver data overflow-recording
2422 Driver echo wrong sequence number
2423 Byte read error reading driver parameters
2424 No file name for driver parameters
2425 Dsp_Stop_Drv failure: cannot stop driver
2426 Dsp_Start_Drv failure: cannot start driver
2427 Odd shared memory address returned by PP_Base
2428 Cannot pass codec byte to driver
2429 Unexpected block received - playback
2430 Request timer failed in startup
2431 Unexpected end_of_block msg. from driver
2432 Invalid message value from driver
2433 Some error in reading driver parameters
2434 Driver rejects command
2435 Command received when driver offline
2436 Block stamp doesn't match stamp in play cmd.
2438 Bad command sequence from vh_vpio

2440	Cannot find VCA to report a driver fault
2441	Cannot initiate VPHandler
2442	Newpool failed
2443	Addpool failed
2444	Newvar failed for debug buffer
2446	Cannot inform VCA
2449	Problem logging into SMDI link handler
2450	Application command not executed
2451	Application command not supported
2452	Internal state table error
2453	Unknown timeout
2454	InCallDetail or call detention time-out
2455	Invalid line status reported from the DSP
2456	Long tone message from DSP
2457	Procedure variable is nil
2458	NewVar failed
2459	Unknown digit detected by DTR
2460	Voice detection request in the wrong context
2461	Bad or undefined DSP message received
2462	Tasking error with VPHDLR
2464	Could not report to VCM
2466	MainteReq: could not report status to VCM
2470	Re-login timer has expired in the wrong state
2471	Channel being enabled/disabled in the wrong state
2472	Problem logging in/out of ACD/UCD agent
2473	Retrying login/logout command
2474	Unable to initialize
2475	Timeout on receiving dial tone after tonegen command
2476	Outgoing call not yet established
2477	Font table is not compatible with the FASCII block
2480	Is_SegAlloc failed for locale
2481	NEWHeap VPHP_DDHeap failed. NEWHeap, VPHP_SpaceHeap failed.
2482	GetBuffers Mem used NEQ need.
2483	More tasks requested than specified (the nth channel being enabled, and the maximum channels that can be enabled for the node)
2484	StartChild - error in sending to child task; SendError to Child task (task result)
2485	StartChild - no room in table for TN & TaskID
2486	TaskID not found in table
2487	Could not get Node/Ports # from ARGSTRING
2488	GetMem failed
2489	Failed to allocate CommTask
2490	RegParent failed
2491	Exception with child (# of active voice ports remain TN)

2492 Completion with child (# of active voice ports remain TN)
2493 VCM is trying to start a VPH on a channel that already has a VPH
2499 Info Debugging SEERs for the VPH

25—Application Module Link (AML)

2501 Tasking error occurred—the AML failed to communicate with an application task
2502 Application task tried to login to AML with an invalid directory number
2503 Hardware database operation failed
2504 Failed to close hardware database
2505 AML link is up
2507 The Meridian 1 is overloading
2508 Failed to send message to Meridian 1
2509 AML's lower layer is not ready
2510 Receive queue is full
2512 Failed to register to NameServer as link handler
2513 AML failed to start the lower layer
2514 Argument string in the startlist for AML is out of range
2515 No argument string in the startlist for AML
2516 Failed to allocate memory segment
2517 Failed to create new buffer pool
2518 Failed to initiate AML task
2519 Failed to add buffer pool together
2520 AML link down
2522 MWI update failed
2523 AML link handler has timed out waiting for the traffic congestion condition to clear in the LAPB protocol layers
2524 System ID is undefined
2525 Time of day was not set up on the Meridian 1
2550 Invalid user
2551 Invalid command
2552 Invalid calling DN
2553 Invalid called DN
2554 Invalid call manner
2555 Link is down
2556 Invalid DN
2557 Link error
2558 Transmit queue full
2559 Login table is full

26—Peripheral Processor (PP)

2611 DSP is MtcBusy or online

2612	DSP not online
2613	DSP not offline
2614	DSP does not exist
2615	Failed to Segalloc memory
2617	Diagnostic request arrived too late
2619	Load file open error
2620	No package parameter block
2621	Bad load package ID
2622	Load file read error
2623	PP_Load tasking problem invoking PP_Update
2624	Not enough memory
2626	Failed to set H/W status register
2627	PP_Reset tasking problem invoking PP_Update
2628	DSP not loaded
2630	Bad private program memory
2631	Bad private table memory
2632	Bad shared data memory
2633	Bad control/status registers
2634	Bad DSP processor
2635	Bad DSP interrupts
2636	Bad voice tap
2637	Bad DSP-DSP memory
2639	PP_Run tasking problem invoking PP_Update
2640	H/W status register HdlA+Reset+VmMtc
2643	Cannot allocate driver ID
2644	Cannot allocate DSP load
2645	Cannot allocate internal data memory
2646	Cannot allocate private program memory
2647	Cannot allocate private table memory
2648	Cannot allocate shared data memory
2649	Cannot allocate DSP-DSP memory
2650	Cannot allocate voice memory
2651	Cannot allocate terminal numbers
2652	Cannot send message to DSP executive
2653	Timeout on DSP response to start command
2654	Interrupt received but cannot get message
2655	Wrong response message type
2656	Bad allocation tables

2657 DSP executive error: RetCode in bits <6:0>

DSP Executive Errors

Code	Error Message
00	No error
01	Message length error
02	Invalid command
16	INIT command errors
32	AUDIT command errors
48	START command errors
49	No driver instances available
50	Nil DCT_Ptr in driver index table
51	No available DCT record
52	No internal data memory page allocated
53	No foreground and no background program
64	STOP command errors
65	No foreground record found
66	No background record found
67	No foreground and no background records

Note: These error codes are in the lower seven bits of the DSP executive error and are returned from DSP software.

2659 Driver or executive driver not active
2660 Cannot send command to DSP executive
2661 Timeout on DSP response to stop command
2662 Cannot get response message
2663 Wrong response message type
2664 Wrong Driver_ID in response message
2665 Deallocation error
2666 DSP execution error: RetCode in bits <6:0>
2668 Invalid driver ID (not active)
2670 Cannot get response message
2671 Wrong response message type
2672 Time-out on DSP Response to PPMPg command
2673 Cannot send PPMPg command
2674 Need the slot number in argument (SPM only)
2675 Failed to map VP12 control register
2676 Sub-task died
2677 Read hardware database related error
2678 CardNumber out of range
2680 Driver capability exceeds DSP capability

2699 Debug SEER

27—Voice Base Service Shell (VSS)

2701 ACD DN or channel DN or dialed DN was not found in the VSDN table
2702 Invalid service identifier
2703 Start-up procedure is not defined for a Voice Service
2705 VSS is already in use when VCA passes the service request to the VSS
2706 VSS failed to start a Voice Service
2707 VSH_PROCS routines fail to talk to the VSS; it is likely that the remote Voice Service forgot to call vsh_BindVSSTid or the VSS crashed
2708 Invalid language value was passed to vsh_GetPrmptFid
2709 No digit stored in the VSS
2710 Too many digits overflowed the buffers in VSS

Keypad digit codes

Code	Meaning
1	One
2	Two
3	Three
4	Four
5	Five
6	Six
7	Seven
8	Eight
9	Nine
10	Zero
11	Star ‘*’
12	OctoThorpe ‘#’
13	Military ‘A’ digit
14	Military ‘B’ digit
15	Military ‘C’ digit
16	Military ‘D’ digit
17	Pause (character ‘,’ and ‘*’)

2711 VSS generates SEER
2712 Errors occurred during attempts to initialize data for new session
2713 Errors occurred when in the process of disconnecting a call.
2714 Incoming call’s service ID does not match the running service of the VSS
2715 Errors occurred during the process of switching services
2716 Errors occurred in the initialization process of the VSS
2717 Time-out while waiting for FromCSL, StartCall or Disconnect
2718 Procedures in VSH_PROCS called before initialization complete
2720 Failure to request VPDH to place an outgoing call
2721 Failure to tell service task to shutdown

2722	Time-out in setting the lock to access the digits buffer in VSS
2723	Error in CAT data; failure to dial out
2724	Negative call duration
2730	Requested operation is not supported
2731	Bad call processing command
2732	Miscellaneous error

Meridian 1 call state

0	idle
1	2-party call is established
2	an incoming call is being presented
3	the called party is being rung
4	call is on hold
5	add-on call is being rung
6	add-on call has been answered
7	conference call is established
8	called party is busy
9	receiving reorder tone
10	half disconnect

(2732) VSS Incoming call debug information

SYNTAX: VSS Incoming CGN: <DN1> <DNType> CDN: <DN2> <DNType>. Call Type: <CallType>

DN1		DN of the calling party
DN2		DN of the called party
DNType	0	Unknown
	1	International
	2	National
	3	Special
	4	Subscriber
	5	ESN (location code call, e.g., ESN)
	6	Coordinated Dialing Plan (CDP)
	7	Reserved
	8	Internal extension
	9	Route Access Code and member number
	10	Route Access Code only
	11	Attendant code and member number
	12	ACD DN and position ID
	13	ACD position and DNIS
	14	IANI ACD DN and position ID
	15	InBand ANI
	16	ACD DN

CallType	0	Direct call
	1	Call-forwarded call
	2	Call-forwarded on busy
	3	Call-forwarded on no answer
	4	Call-forwarded on Do Not Disturb

2733 Invalid information type is specified in the vsh_QueryInfo routine
2734 Call cannot be answered because it is already disconnected or answered
2736 VSS was told by VCA to shutdown during registration
2737 Failed to send outgoing call progress status to service task
2741 Invalid customer number
2742 Prompt files were opened from the disk
2743 Unrecognized prompt file name
2744 Failed to acquire a voice port
2761 Invalid internal timer value

28—Generic Telephony Interface (GTI)

2801 Tasking error
2802 Command not supported for the configuration
2803 Bad parameter in procedure call
2804 MWI server does not exist
2806 Syntax of DN is incorrect
2807 Invalid digit
2808 Size of the DN is invalid
2810 DN already logged in
2811 DN was not found in link handler table
2812 Link is not in service
2813 Device status is already set
2815 No more entries in the device DN table
2816 Not an associated set
2817 Channel allocation failed
2818 Channel deallocation failed.
2819 Query information operation failed
2820 Communication has been broken between the link handler and the application
2821 Link handler is in standby mode

29—Link (AML)

2930 Meridian Mail starts link initialization
2931 Meridian Mail unable to initialize link
2932 Meridian Mail layer 1 transmit error
2933 Meridian Mail starts link initialization
2934 Meridian 1 does not respond
2935 Link is up; initiated by Meridian Mail

2936 Link is up; initiated by Meridian 1
2937 Meridian 1 does not respond
2938 Link is up; initiated by Meridian 1
2939 Meridian 1 starts link initialization
2940 Link is up; initiated by Meridian 1
2941 Meridian Mail clears timer recovery condition
2942 Meridian Mail clears timer recovery condition
2943 Meridian Mail starts link initialization
2944 Meridian Mail starts link initialization
2945 Meridian Mail starts link initialization
2946 Meridian 1 requests link disconnection
2947 Link is up; initiated by Meridian 1
2948 Meridian Mail clears timer recovery condition
2949 Meridian Mail clears timer recovery condition
2950 Meridian Mail starts link initialization
2951 Meridian Mail requests link disconnection
2952 Meridian Mail starts link initialization
2953 Link is up; initiated by Meridian 1
2954 Meridian Mail starts link initialization
2955 Meridian 1 starts link initialization
2956 Link is up; initiated by Meridian 1
2957 Meridian Mail clears timer recovery condition
2958 Meridian Mail starts link initialization
2959 Meridian Mail starts link initialization
2960 Meridian Mail layer 1 transmit error
2961 Meridian Mail starts link initialization
2962 Meridian Mail starts link initialization
2963 Meridian Mail starts link initialization
2964 Meridian Mail layer 1 receive error
2965 Meridian Mail layer 1 transmit error
2966 Meridian Mail is ready for link start
2967 Meridian Mail received a frame with half data
2980 Meridian Mail received a Reset command from the switch
2982 Meridian Mail received a Disconnect command from the switch

30—Administration Base (AD) codes

3001 Error occurred obtaining the FID at a personal profile
3002 Number of bytes read is not as expected
3003 Invalid customer number specified when trying to open a customer profile
3004 Invalid customer number specified when trying to get the FID of the customer profile and the parent cabinet
3005 Pointer(s) to the profile(s) are not setup correctly

3006 Could not update system profile with information in the system record file
3007 Personal profile to be added already exists on the system
3008 Customer profile to be added already exists on the system
3009 File pointer to the COS profile is missing when reading a user profile
3010 Invalid COS number specified when reading a user profile
3020 Unable to retrieve a COS record from the specified organization profile
3021 Unable to update a COS record in the specified organization profile
3022 Unable to locate the COS offset record
3023 Retrieved COS record is of the wrong length
3024 Unable to delete the specified COS record
3025 Trying to add a second customer to a uni-customer system
3026 Trying to add a defined customer to the system
3027 Invalid record specified when adding a component record that has COS fields
3030 Unable to install the language record
3031 Unable to install the switch record
3032 Unable to install the font record
3051 Error occurred accessing the DR
3060 Version of the personal or customer profile is incorrect for the current release
3061 Version of the system profile is incorrect for the current release
3070 Major error caused the conversion process to abort
3071 Minor error(s) were encountered during the conversion process

31—Directory Server (DR) codes

3101 Bad primary index file: file too short
3102 Bad primary index file: file too short
3105 Server cache segAlloc returned newSeg false
3106 Server cache segAlloc failed: no memory
3107 Unable to initiate update agent
3109 Error performing control function (dr_Control)
3116 File system error, directory may be corrupted
3117 Bad secondary index - continuation flag, no next file
3118 The directory update task was unable to obtain the entry to update using the pull mechanism.
3119 The directory server was unable to return directory operational measurements to an application by using the push mechanism.
3122 Consistency check: keyRegenerate filter reject
3123 Consistency check: keyRegenerate bad language
3124 Consistency check: keyRegenerate bad keyType
3126 Consistency check: entry w/o clientID
3127 Consistency check: key out of order
3130 DRCB already in use (dr_OpenOD)
3131 Insufficient Memory (dr_OpenOD)
3132 Invalid DRCB used in DR operation

3134 DR server could not be accessed
3135 Update agent unavailable; “updDisabled” or auditing
3138 Secondary index file not found (drErr)
3139 Bad secondary index file: too short (readKeyBlock)
3140 Bad secondary index file: (open1stFile)
3142 Bad secondary index file: attr len bad (unPackAttr)
3143 Bad secondary index file: bad packed entry (scUnPack)
3144 Bad secondary index file: file too short (unPackFilter)
3145 Bad secondary index file: entry too short (unPackFilter)
3146 Bad secondary index file: file too short (unPackFilter)
3147 Bad secondary index file: entry too big (unPackFilter)
3148 Bad secondary index file: file too short (unPackFilter)
3149 Bad secondary index file: bad entry format (unPackFilter)
3150 Bad secondary index file: missing list end (skipList)
3151 Bad secondary index file: wrong list end (skipList)
3152 Bad secondary index file: no list end (dr_ExpandMembers)
3153 Bad secondary index file: file too short (nextRef)
3154 Bad secondary index file: file too short (dr_References)
3159 Consistency: couldn’t make key (processPattern)
3160 Consistency: couldn’t make key (processPattern)
3161 Internal directory problem generating a marker (dr_GetMarker)
3164 Consistency: entry is/is not findable (dr_Tools)
3165 Invalid parameters passed (dr_PrimeNewDir)
3166 Consistency: entry is/is not referenced (dr_Tools)
3167 Consistency: entry is present twice (dr_Tools)
3168 Consistency: entry is/is not in a list (dr_Tools)
3170 Language unknown (dr_SetCompParms)
3172 Bad pattern: bad use of “?” (processPattern)
3173 DRCB locked or in use by another task
3174 Maximum cost advice exceeded: pattern too loose?
3175 Entry already in list (dr_AddMember)
3176 Bad call sequence: no scan active (dr_NextEntry)
3177 Bad call sequence: no scan active (dr_PrevEntry)
3178 Bad call sequence: no scan active (dr_LastEntry)
3179 Bad call sequence: no ref scan (dr_NextReferrer)
3180 Invalid data in an entry during add or change
3181 Marker is inconsistent with the pattern (dr_ContScan)
3182 ClientID supplied is already in use
3183 Entry not found (entryFind, entryTrot)
3184 Member not found (listTrot)
3185 No next file, reached end of dir (delList)
3186 Entry not found in dr_DelEntry
3187 Entry not found in dr_ChgEntry

3188 List entry not found in dr_AddMember, dr_DelMember
3189 Member entry not found in dr_AddMember
3190 Entry not found in dr_References
3191 List entry not found in dr_ExpandMembers
3192 Bad entry type: not a list (dr_ExpandMembers, etc.)
3193 Bad entry type: list/non-list (rChgEntry)
3194 Invalid scan state for generating a marker (dr_GetMarker)
3195 Attempt to update entry without locking (scan)
3196 Entry already locked (tLock)
3197 Entry not yet locked by you (tUnLock)
3198 Cannot lock: too many entries locked (tLock)
3199 Unimplemented feature used

32—Message Transfer Agent (MTA)

3203 Operational measurement statistics not complete
3204 Unimplemented operation
3205 Unimplemented function
3206 Cancelled message is not in deferred delivery queue (DDQ)
3207 Invalid message ID
3208 MTA task not accepting messages
3209 mtProcs had a tasking error with MTA program
3210 MTA delivered a message late
3212 Failed to access system or customer profile
3213 Fails to access user profile
3220 Failed to send RN request to outcalling agent
3250 MTA task not found
3251 Restart operation failed; MTA will shut down
3260 Problem in generating NDN msg
3261 Error in record structure
3262 Cannot get MTA cabinet counts
3263 Miscellaneous error
3264 Failed to get sender information
3265 Cannot deliver to system address types
3266 Recipient is off node
3268 Copy table overflow; some recipients will not receive message; NDN generated for such recipients
3269 List table overflow; list won’t become expanded
3270 CSL error occurred
3272 Reported error prevented message delivery to one or more recipients
3273 Could not gain access to an MTA cabinet; mail delivery from this volume is blocked
3274 Failed to set MWI or notify a voice messaging session of new message
3275 Delivery task went away and MTA has chosen not to restart it

3276 One or more of the specified volumes is already registered with another MTA
3277 System volume is not yet online
3278 Problem in accessing the deferred queue and the queue will be rebuilt
3279 Could not open the OrgDir; a delivery task may shut down;
3280 message format conversion error
3281 DD/CM error occurs in file/cabinet operation
3282 User profile is not consistent with organization directory
3285 Bad argstring in startlist
3286 Attempt to allocate MTA heap failed
3287 Registration of MTA program failed
3288 All delivery tasks have died or failed to start
3289 Reported error prevents MTA from starting
3290 Cannot build the deferred queue
3299 MTA lost heap

33—Operational Measurements (OM)

3311 Task error occurred
3312 OM server not running
3313 No buffers available for remote send
3317 Failure in storing OM data
3318 Problem sending OM data to the SNMP server
3321 Failed to delete file
3331 Cannot access organization profile
3332 Cannot poll server
3333 Data not written to disk
3334 Failed to accumulate voice messaging peg data
3338 Failed to register the server
3341 PRM failed to start OM_COLLECT
3360 OM_COLLECT normally completed
3362 OM_COLLECT problem
3366 General OM_SERVER message
3367 General OM_SERVER error
3369 General OM_Server error
3375 Error adding billing or traffic records
3391 Voice service failed to locate OM_SERVER
3393 Voice menu service failed to locate OM_SERVER
3394 Error converting billing file

34—Voice Channel Allocator (VCA)

3440 Internal sanity check on hash table failed
3441 VSS tried to release a resource it did not own
3442 VCA control block passed in by the client was invalid

3443 Internal Sanity check failed
3444 Operation not supported on this platform
3445 Information message
3446 A timeout occurred during VCA recovery
3447 Variable out of range
3451 All VSSs that are available for the specified service are Out of Service
3452 Call collision during outcall; no impact
3453 Service does not exist and no general purpose VSSs are idle
3454 Service is datafilled but no VSSs of that service are available
3455 Could not read the hardware database at startup
3456 VSS is already in a call
3457 Device being searched for was not found
3458 VCA is abandoning recovery operation
3461 There was no memory at startup for the VCA
3464 Tasking error occurred
3465 Bad parameter passed in by client
3466 Unexpected event occurred
3467 User is already registered with the service specified to UserUpdate
3469 Maintenance has disabled all logins or system is not yet up
3471 Device was in an incorrect state for the requested operation
3475 There was no memory at startup for the VCA or there was some other initialization problem
3479 User is not registered in the VCA
3480 Restarting a VSS
3481 Failed to find port in table
3482 No timeslots found for maintenance routine
3483 OnError Entry for VA invoked
3486 Could not find port in internal table to release
3488 Problem cleaning up dying program
3490 Internal sanity check failed
3491 No available ports found
3492 Requested more than two ports
3493 Resources are not ready yet
3494 Unexpected device acquiring a timeslot
3495 Failed to PUSH OM or status PUSH to MMI
3496 VSS or VPH requested invalid event
3497 Error occurred during recovery
3499 Unexpected event occurred

35—SEER server (SS)

3500 SEER notice of event—not an error
3501 SEER file was not found in cabinet
3502 Indicates a DD error—file may be corrupted

3503 Error indexing a SEER
3504 Error recording a SEER
3505 SEER file is full—pointer must be reset to permit overwrite
3506 Date is outside of range of valid SEER dates
3507 Start date is later than the end date
3508 No records were found in the specified interval
3509 Difficulty communicating with the SEER server
3510 Tasking error encountered—retry send
3511 SEER crash—recovery was attempted
3512 Record not found
3513 Tasking error encountered, probably due to incorrect database or hardware
3512 Problem sending SEER messages to the SNMP server
3519 The SNMP notification is not installed
3520 The SNMP notification feature is disabled

36—Network Message Transfer Agent (NMTA)

3601 NMTA is not accepting messages
3602 Tasking error with NMTA
3603 Cannot locate NMTA task
3604 NMTA has run out of memory space
3605 Reported error prevents the NMTA from starting
3606 Invalid input parameter
3607 ATA has invoked nm_CallError
3608 Remote site has entered/existed from ERROR state
3609 Has or has not networking port
3610 Error during startup
3611 Error with network setup
3613 Enterprise Diagnostic Test already running
3614 Site is not in error
3615 No Meridian Networking Dataports are defined
3616 Error occurred with network database
3617 Error with Cabinet Manager (CM)
3618 Error building message queue
3619 Invalid operation occurred on disabled site
3621 Fail to access message cabinet
3622 Fail to submit to MTA
3623 Fail to send billing record to OM
3624 Do not commit file from MTA
3625 Communicate with VCA failed
3626 NM has encountered an internal logic error
3627 Fail to open Network Database
3628 Current connection failed

3630	Network dataport has failed 15 times
3631	No free networking data port
3632	Destination site is not in the network
3633	NMTA has a problem with NDN
3634	Message has been dropped by the NMTA
3640	Cannot find remote site info
3641	Received password is invalid
3643	Software release does not agree
3644	Function call not expected
3645	Received session header contains invalid site ID
3651	NMTA has run out of OTA control block
3652	OTA reports a particular session is disconnected
3653	System access number used for the outgoing session is invalid
3654	There is no associated outgoing OTA control block
3655	Outgoing AMIS session OTA control block is found not in use after the session has been started
3656	No messages found in the message queue after an outgoing AMIS session is started
3657	Network messages not compatible with the remote site
3658	Network cabinet has too many files
3669	Fails to get cabinet counters from the file system
3670	Network database is not open
3671	Network database is already open
3672	Site or location has not been defined
3673	Site or location is already defined
3674	Failed to add ESN, CDP, or mailbox prefix
3675	Failed to remove ESN, CDP, or mailbox prefix
3677	Invalid mailbox number
3678	No more sites to list
3679	Fatal error, possible database corruption
3680	Networking not enabled in Organizational Profile
3681	Network database conversion information
3682	Invalid data
3683	ESN, CDP, or mailbox prefix underlaps an existing prefix
3684	ESN, CDP, or mailbox prefix overlaps an existing prefix
3685	No ESN, CDP, or mailbox prefix found
3686	Translated DN is too long
3689	ESN, CDP, or mailbox prefix matches an existing prefix
3690	No spoken name is present
3691	DN cannot be determined
3692	Specified context is undefined
3693	Database commit not carried out
3694	System access number (SAN) for an AMIS site is invalid

3695 Invalid International Direct Distance Dialing (IDDD) Directory Number
3696 Network database is too large

37—Analog Transfer Agent (ATA)

3701 Invalid data from NMTA
3702 Cannot open dataport
3703 I/O error on modem dataport
3704 Received DD error on FID
3705 Unexpected end of record on FID
3706 Data link synchronization error
3707 Bad call progress received
3708 Problems placing call to remote site
3709 Cannot put modem on-hook at DN
3710 Failed to detect far end carrier at DN
3711 Modem will not answer add-on call at DN
3712 Cannot escape to modem command mode at DN
3713 No call progress received: callstate
3714 Cannot allocate buffers from VSS heap
3715 Modem fails to respond at DN
3716 Tasking error with the NMTA
3717 Cannot start datalink task
3718 Internal tasking error
3719 Tasking error while accessing software timer
3720 Failed to receive end of voice on FID
3721 Detected error in voice segment on FID
3722 VSS error: VSS code
3750 NMTA instructed ATA to abort
3751 Bad or unexpected state
3752 Invalid data packet received
3755 Failed to setup connection
3753 Call disconnected unexpectedly
3756 No answer from called party
3758 Didn’t receive file acknowledgement
3759 Message retry limit expired
3760 Received incoming call but expected to outcall
3761 Unexpected call progress result
3763 Miscellaneous error occurred
3764 Message is incompatible with ATA version
3765 Invalid data received
3766 Failed to reset a dataport
3767 Failed to allocate memory segment
3768 Remote site doesn’t support broadcast messages

3791 Failed to set data mode
3792 Failed to open modem port
3793 Failed to get modem task ID
3794 Failed to flush port

38—Simplified Message Desk Interface (SMDI)

3800 SMDI program did not load
3801 Asynchronous error on send
3802 Synchronous error on send
3803 Counter was reset
3804 Link status down
3805 DN not logged in
3806 TN is not defined in the table
3807 Argstring not set
3808 Could not open hardware database
3809 Invalid DN on request to turn MWI on or off
3810 Blocked request to turn MWI on or off
3811 Bad packet format when processing packet
3812 SMDI buffer overflowed
3813 Error trying to enable interrupt
3814 DN is too long
3815 No buffer pool
3816 Error trying to register
3817 Error trying to dump the channel table
3818 Link status: up message
3819 Bad parameter passed or used
3820 Restarting link with more channels than originally having, will only use the Original amount
3821 Error in registering LH with VCM
3822 Error registering parent with VCM
3824 No channels found for the link
3825 SMDI channel table end boundary has passed the maximum channel limit
3826 Failed to inform the VCM of the link status change
3827 Could not locate the mirror/brother link
3828 Could not find link ID in the static table
3829 Boardtype does not support redundant links; no switching
3830 System type does not support redundant links; that is, stand-alone
3831 Port found not between 0-3 for boardtype

39—Hardware Database (HD)

3901 No match was found in the requested search
3902 Add request failed because a component in the hardware database with the same location code exists

3903 Modify or delete request failed because the specified record was not found
3904 HD has reached its storage limit, so the add request failed
3905 HD could not interpret the key fields passed in by an application or utility
3906 Modify or delete failed because the component was changed by another application or utility after this application, or utility last looked at the component's record
3907 Silence Compression is not set correctly for all DSPs.

40—MMI Server (MS)

4000 MMI server failed to register with the PRM or SEER server program
4001 MMI program cannot communicate with the MMI server; the MMI server is probably not running
4002 MMI server cannot start some internal task
4003 MMI server could not read the hardware database
4005 MMI server could not read or write to bill control table
4006 Billing control file created successfully or billing control table audited successfully.
4008 MMI Server was killed and restarted because of an initialization failure.

41—Voice Channel Maintenance (VCM)

4120 The requested resource is unavailable. The requestor should try again.
4122 A new T1 Clock Reference is being selected
4129 Failed to load a DSP on PP
4130 Failed to run a DSP on PP
4131 Failed to test a DSP on PP
4132 Failed to reset a DSP to PP
4133 DSP was started too many times
4134 PP software not loaded
4135 Failed to load DSP on PP
4136 DSP does not exist CL5
4137 Internal DSP state is faulty or a fault is pending
4138 Problem doing ForceUnconfig
4139 DSP has bad status
4140 Device already online in maintenance command
4141 Invalid system status for operation
4143 Get status failed
4144 Maintenance operation failed
4146 Error in DevReport
4147 Too many T1 spans have been configured
4148 Could not find VSS node for device
4151 Device is not in standby mode. The requested operation is only allowed when the device is in standby mode.

4152	Device cannot be found in the device tables
4153	Maintenance command is not supported for the device.
4154	Maintenance command is pending new commands that cannot be accepted
4155	Cannot perform operation on hardware database
4156	Device is faulty, cannot be enabled
4157	Device is not configured.
4158	Unexpected report or reply received from client
4160	Function has not been implemented
4161	Not enough memory
4162	The VCM task could not be located.
4163	There were too many span switches, probable far end problem
4164	Tasking error occurred in the VCM
4165	Nil task id was passed unexpectedly
4166	An unexpected event occurred
4167	ProgInfo or TaskInfo was invoked
4168	Internal TNtoIndex routine failed
4169	Unexpected combination of status and command in MainteReply
4170	Command in Reply Routine does not match
4171	Device in an incorrect state for the operation being requested
4172	Device not registered, retry operation
4173	Request to start device task/program failed
4174	Some of the devices are not OOS
4175	VCM is dying due to a SEGALLOC or config problem
4176	Timer has not expired
4177	Parent program is not up yet
4178	Node is not up yet
4179	System is not up yet
4180	Span is not up yet
4181	No mte reply was expected
4182	Cannot talk to VSS
4183	Failed to find the CSL
4185	Error on WarmStart
4186	Error providing info for driver
4187	OnError entry invoked
4188	Error communicating with the PRM
4189	Error communicating with the VCA
4190	Could not put dev isOnline since partner was isOnline
4191	Link is not up
4192	Error in DevRegister
4193	Error in sanity device
4194	Error in need port on hardwired system
4195	Error in Mte Reply
4197	Information SEER

4198 Assertion VCM failed
4199 Debug statement

42—Open Access Transfer Agent (OTA)

4201 Error occurred in accessing or creating a message file
4202 Error occurred during transferring voice
4203 Tasking error occurred
4204 Error occurred during sending or receiving tone
4205 Error occurred during protocol exchange; one of the systems has not conformed with the AMIS or Enterprise protocol standard
4206 Invalid mailbox
4207 OTA could not locate NMTA
4208 Error occurred during accessing networking database file
4209 Could not find recipient in the message envelope
4210 Error occurred during reading recipient's information
4211 Receiving system did not answer call
4212 Error occurred because of poor line quality while transmitting analog signal; one of the systems has not conformed with the AMISA protocol standard
4213 OTA failed to register
4214 Other system stopped while transmitting voice
4215 Other system detected an error while our system was transmitting voice
4216 Wrong number was entered during composition of an AMIS message
4217 Channel disconnected
4218 Invalid string in Enterprise Networking message
4219 Cabinet Manager (CM) error
4220 DR error
4221 Problem with remote user
4222 Problem with admin server
4223 The message contains invalid data
4224 Protocol Mismatch. Enterprise session from AMIS remote site or vice versa
4225 Internal error
4298 Receiving site doesn't support broadcast messages
4299 Enterprise Diagnostic Test

43—Forms Manager (FM)

4301 Problem occurred trying to communicate with the FM
4302 Problem occurred trying to access the required form information file
4308 Response cabinet still not found
4309 Problem adding a response to a response cabinet
4310 Response was being returned, after transcription, from a task which has not locked it for transcription
4311 Failed to remove response

4312 Failed to return a response after transcription or flagging for a new state (MakeSpecial)
4313 Indicated response file is corrupted
4314 Indicated response file could not be accessed
4315 Problem with startlist parms
4316 Operation was requested while the FM was in a transition state (restart); a temporary outage of service will occur during this period
4318 Form name, customer number or service id is not in the correct format, that is, the length is incorrect or it is non-numeric, excluding filler characters (“*”)
4320 Version number problem with a definition file
4321 Indicates that a problem exists trying to access a form information file; fm_procs software will attempt to add a new FIF and retry the communication with the forms manager
4325 Failure to synchronize the voice form data after a recovery or certain expansions; a file, cabinet or service could not be accessed
4326 Status note from the forms manager (for example, Restart complete)
4327 Forms manager multiserver has failed to start or be restarted; another attempt will be made by the PRM
4328 Forms manager has failed to initialize the MWI for all voice form definitions
4329 Communication error occurred when a sub-task tried to communicate with the forms manager
4330 Problem occurred trying to initiate a system sub-task
4331 Form information file was found to be in an open (INUSE) state after all requests had been removed. The server will be terminated and restarted by the PRM
4332 Size of the record expected was not found
4333 Memory fragmentation or allocation problem has occurred with the memory provided to the FM
4334 Specified form definition is not in the DR
4335 During a request to add a response cabinet, it was found that the form definition had been taken out of service
4337 State of a response was found to be invalid on return from transcription
4338 Failure to synchronize the voice form data after a recovery or certain expansions: a file or cabinet was found to be corrupted
4339 The administrator has chosen to abort a call to fm_sync. This will prevent voice forms from being recovered fully during a restore procedure.
4340 Voice forms response could not be recorded because all disks were full or not available
4341 Service unit could not be assigned an index into the channel array; this could be due to the channel location being invalid or all of the indices may have been allocated

44—T1 Diagnostics (T1D)

4401 Argument string supplied for T1 diagnostics is incomplete.
4402 Invalid T1 diagnostic test number supplied.

4403 End address is larger that start address.
4404 Invalid type supplied.
4405 Span number is out of range
4406 Could not acquire timeslot to perform diagnostics.
4407 T1 diagnostics routine receive tasking error when attempting to communicate with another task
4408 Result from T1 68K register test.
4409 Result from T1 68K connection memory test.
4410 Result from T1 68K Dual Port RAM test.
4411 Result from T1 302 Dual Port RAM test.
4412 Result from T1 302 Dual Port RAM test.
4413 Result from T1 302 Self test.
4414 Result from T1 302 Register test.
4415 Result from T1 302 voice tap loopback test.
4416 Result from T1 302 Bus loopback test.
4417 Result from T1 302 Line interface loopback test.
4418 Result from T1 302 Relay loopback test.
4419 Result from T1 302 Signalling test.
4420 Result from T1 302 External loopback test.
4421 Result from T1 302 Span loopback test.
4422 Result from T1 302 Snake Loopback test.
4430 Could not release timeslots.
4431 Too many interrupts received from diagnostics firmware.
4432 Could not retrieve the diagnostic firmware file ID.
4433 Error trying to change span state to Diagnostics.
4434 Error loading diagnostics/call-processing firmware into span.
4435 Request to test invalid memory size.
4436 Memory test failure detected.
4437 Invalid register number provided.
4438 Invalid channel number provided.
4439 Could not acquire timeslot to perform diagnostics
4440 Attempt to find the T1 card memory failed.
4442 Failed to write time slot.
4443 Could not locate the call-processing firmware file.
4444 Could not load call-processing firmware.

45—T1 Loader (T1L)

4500 Cannot locate T1 Loader task.
4501 Error tasking with the T1 Loader.
4502 T1 Loader memory tests indicate that the DPRAM is faulty.
4503 Loader polling of Bootstrap timed out.
4504 BootStrap memory tests indicate that the 68302 SRAM is faulty.

4505 T1 Bootstrap detected checksum error in the T1 firmware s-record placed on DPRAM by T1 Loader.
4506 68302 Bus error detected by BootStrap.
4507 68302 interrupt detected by BootStrap.
4508 68302 addressing detected by BootStrap.
4509 Illegal instruction reported by 68302 Bootstrap.
4510 Invalid status received from Bootstrap.
4511 Unexpected status received from Bootstrap.
4512 Incorrect status2 received from bootstrap.
4513 Character in S-Record not is not a digit as expected.
4514 Cannot open file on disk to load span.
4515 Cannot find record 1 in S-record file on disk.
4516 Cannot read S-Record file on disk.
4517 File is not of expected S-Record format.
4518 Invalid span number received.
4519 A load request was made with the invalid Load type.
4520 Could not get bootstrap FID. File may not exits.
4521 Could not close open file.
4522 Loader request could not be performed with the span in its current state.
4523 T1 Loader could not register.
4524 Unable to allocate buffer to load T1 firmware.
4525 Bootstrap cannot interpret record placed on DPRAM.
4526 Timeout waiting for firmware to respond with span-awake information
4527 Expecting only one message (Span awake) from firmware, however more messages were received.
4528 Firmware indicate span-awake failure.
4529 Too many messages received from T1 firmware. Span is not loaded.
4530 Firmware report span fault.
4531 T1 debug port is already logged in. Logout first.

46—T1 COMM (T1C)

4600 Cannot locate T1 Comm Task.
4601 Error tasking with T1 Comm task
4602 Error mapping T1 card configuration space.
4603 Error mapping T1 card I/O space.
4604 Error mapping T1 card shared memory space.
4605 T1 voice tap stuck in reset state.
4606 Internal voice tap fault detected.
4607 Connection memory queue is full.
4608 Receive message queue is full.
4609 Receive message queue is corrupted
4610 Transmit message queue is full
4611 Span is not in an appropriate state for current request.

4612 Link Handler did not register with T1 comm task
4613 Parity error writing to connection memory.
4614 Access error writing to connection memory.
4615 TSW queue is corrupted.
4616 Transmit message size is invalid.
4617 Receive message size is invalid.
4618 TSW interrupt received but no interrupt pending bit is set.
4619 T1 interrupt received but no interrupt pending bit is set.
4620 T1 comm task could not register.
4621 Span DPRAM does not exist.
4622 TSW stuck in initialization.
4623 Fault in requesting timer.
4624 Connection memory queue timeout occur.
4625 Cannot locate T1 card configuration space.
4627 Message received from a span to which the Link Handler has not logged in.
4628 TSW fault interrupt received from a span to which the Link Handler has not logged in. Fault could not be registered.
4629 PLL interrupt received from a span to which the Link Handler has not logged in. Fault could not be registered.
4630 Error in performing Diagnostics timeslot requirement.
4631 68302 watchdog timeout.
4632 T1 Transmit queue is corrupted.
4633 Time switch audit routine detected mismatch in audit and actual memory
4634 No external references selected on this T1 card
4635 Previous external reference is overwritten by this selection
4636 The hardware register did not retain the external span selected
4637 Could not enable external referencing on card
4677 Error initiating T1 Comm task
4678 Error initiating T1 Loader task

47—T1 LInk Handler (T1LH)

4700 report T1 status change
4701 T1LH failed to startup the span
4702 unexpected loader state detected
4703 error in loading up the firmware
4704 error in reading firmware bin file
4705 failed to reset a trunk to the offline state
4706 loader fails to toggle the reset line
4707 failed to release all timeslots for the span
4708 report Operating status word changes
4710 error encountered when shutting down the channel
4711 Incoming call dropped
4712 Change T1 clock reference failed

4713 Get T1 clock reference failed
4717 channel command primitive timeout
4718 timeout in sending a message
4719 timeout when establishing an incoming call
4725 unknown message from the T1 firmware
4726 error in fetching messages from T1COM
4727 Dump the message sent by the firmware
4728 message routed incorrectly
4730 failed to register the T1LH with other task
4731 failed to communicate with other task
4735 unexpected event
4736 message rejected by the firmware
4737 Red/Yellow alarm detected
4738 software fault detected
4739 hardware fault detected
4740 no application has login to the channel
4741 invalid channel number
4742 fails to disconnect a call
4743 fails to execute a primitive
4744 error encountered during recovery
4745 error in setting up connection memory
4746 Voice Port fails to execute the desired command
4747 retry for outcalling failed

48—Diagnostic Control (DC)

4801 Cannot register the task ID in the name server
4802 Most likely the number of instances of the program has reached its limit
4803 A job was manually removed from the jobs list
4805 Memory for job storage has reached maximum capacity
4806 Diagnostic control cannot register with PRM
4807 A 68K card had been removed and is now being reinserted
4808 Abnormal sequence of node status information sent from PRM
4810 Problems with internal management of jobs
4821 Testdiag is reporting
4826 Memhog program is reporting
4831 Diskdog program is reporting
4841 Busbang program is reporting
4845 Debug information. Used only in the test engineering environment
4850 A diagnostic program has returned a result for which the pass count is less than the done count

50—Toolkit Master (TKM)

5001 Could not locate TC task, which should be present in locale 0 of TKM processor
5002 Synchronous task error occurred while communicating with the TC
5003 Synchronous task error occurred while communicating with the TC
5011 Task error occurred while sending a message to a TK task
5012 TK startup was refused by the TK task; probably resource management failure
5016 TKM ACCESS cable on wrong serial port; use port # = ’
5018 Upon recovery, the TKM could not locate the TC task on the node
5021 Message received was too short to be a valid request
5022 Received message that could not be interpreted
5024 Optional feature was not enabled
5031 Received notification of a disconnect
5091 Fatal error

51—Voice Toolkit (TK)

5101 Minor system error caused command to fail; MISA return code displayed
5104 Incoming call arrived for the IVR DN displayed, but no application is driving the channel
5105 A switchback has occurred from an unsupported service.
5106 A password violation occurred when attempting to log on to a mailbox.

52—Toolkit Communications (TC)

5201 TC could not deliver a data packet to the voice toolkit (TK)
5202 TC was unable to allocate all necessary message buffers at startup time.
5203 TKM ACCESS cable on wrong serial port. Use port # = ’
5204 Problem while reading startlist at startup time

53—Voice Processor Diagnostics (VPD)

5300 General information worthy of being noted, such as voice processor diagnostics started, restarting or destroying tasks, and buffer allocation problem
5301 VPD program start request failed
5302 VPD program failed its initialization process.
5303 DSP under test failed diagnostics
5304 VPD program failed to start a DSP diagnostic task or received bad task result
5305 VPD program failed to talk to VOM_PP on that node, or VOM_PP rejected diagnostics
5306 DSP under test had time slot allocation problems during voice bus loop back test
5307 DSP under test had to wait an extra delay cycle for the DSP marching test
5308 DSP under test had time slot allocation problems during linear to PCM voice bus loop back test
5309 DSP under test had host interrupt pending even after attempting to clear it
5310 VOM_PP failed to raise interrupt event for the DSP under test

5311 Card type found by DSP test was different than the card type passed to the diagnostic
5312 Line test for the VP card detected a line problem

54—Utility Card (NT6P03 / NT6P42) Diagnostics (RBD)

5400 General information from RBD. Information such as diagnostics started, complete, setup
5401 JAM register test failed
5402 Could not MAP memory on the RB card
5403 Realtime clock is setup for binary format; however, data in register is not in binary format
5404 Data in realtime clock register is not in the expected range
5405 Accuracy of the RTC time is not within ±1 second of the expected value
5406 Read/write test failed on realtime clock register
5407 Attempt to register RBD_OVL locally failed
5408 Attempt to startup RBD_OVL failed
5409 Unable to locate RBD_OVL
5410 Unable to locate the specified memory on the RB card
5411 Unable to locate the realtime clock on the RB board
5412 Test for different memory block failed
5413 Disable polling test failed
5414 Enable polling test failed
5415 Incremental memory test on polling RAM failed
5416 Walk memory test failed on polling RAM
5417 Read/write memory test failed on polling RAM.
5418 Incremental memory test failed on realtime clock RAM
5419 Walking memory test failed on realtime clock RAM
5420 Read/write memory test failed on RTC RAM
5421 Error opening file to test the specified port
5422 Serial port Local LoopBack test failed
5423 Invalid argument string passed into program
5424 Maximum poll latch failed read/write memory test
5425 Alarm register failed
5426 Modem diagnostics failed
5427 Error opening file for port testing
5428 Error acquiring buffer for RB diagnostics
5429 Error communicating with RBD_OVL

55—Voice Service Administration (VSA) Conversion Utilities

5501 Current time not available
5502 Conversion completed.
5503 Unable to close the Cabinet.
5504 Unable to close the VSDN file.

5505 Unable to unlink FCB
5506 Unable to close DR.
5507 Unable to get the FID for cabinet.
5508 Unable to open cabinet.
5509 Unable to find the VSDN file in cust cabinet.
5510 Unable to obtain the FIR
5511 Unable to open the VSDN file.
5512 DD_FindRec operation failed.
5513 No DN record exists in the VSDN file.
5514 Unable to delete the VSDN file.
5515 Unable to move the VSDN file to the garbage cabinet.
5516 DD_GetRecDesc operation failed
5517 Unable to read DN from the VSDN file.
5518 Unable to read the ServId Record for DN.
5519 The number of DN and ServId entries are not equal.
5520 Unable to open the DR
5521 DR_FindEntry operation failed.
5522 Unable to add DN to the DR Entry.
5523 Unable to link FCB.
5524 Number of DN fail to convert.
5525 Conversion is partially done
5526 Conversion Failed
5527 The VSDN file is moved to the garbage cabinet
5528 Number of DN or ServId to be converted.
5529 The VSDN file is successfully deleted.
5530 Dn already exists in the DR Entry.
5531 Converting DN into the DR VSDN Entry
5532 DN successfully converted into DR VSDN Entry.
5533 Information contained in the VSDN is incorrect. The number of digits in the VSDN entry is either less than the local DN length or greater than system DN length.
5534 The sum of the length of the NPA supplied and the length of the VSDN itself is less than the system DN length so there is not enough information to fill the Expansion Digits field.
5535 The mailbox ID is too long. Either the mailbox ID itself or the mailbox ID together with the NPA is longer than the system DN length.
5536 System DN length has not been defined.
5537 Local DN lengths have not been defined for the customer OR they are greater than System DN length.
5538 Unable to close a profile. This occurred when trying to close a customer or system profile and may indicate a possible corrupted profile.
5539 dr_NextEntry operation failed. Possible System Error.
5540 Unable to add a Cabinet.

5541 The Service ID is Invalid
5542 DD_Create operation failed.
5543 Unable to add the Service ID File
5544 Unable to open the Organization Directory.
5545 DD_Read operation failed.
5546 DD_QuickInfo operation failed
5547 DD_CrtRec operation failed.
5548 DD_AddFile operation failed.
5549 DD_Write operation failed.
5550 DD_CopyRec operation failed.
5551 cm_UpdtFile operation failed.
5552 Unable to read the System Profile.
5553 Unable to read the Customer Profile.
5554 Unable to read the Admin Language Record.
5555 Unable to read the Admin Login Record.
5556 Unable to move the MM8 Voice Service Cabinet.
5557 Unable to read the Voice Services Profile.
5558 The FIR for the Voice Service File is invalid.
5559 Unable to obtain the FIR for the Cabinet.
5560 Unable to obtain the FID for the Cabinet.
5561 Unable to remove the MM7 Voice Service Cabinet.
5562 Unable to open the Voice Service File.
5563 Unable to find the specified record in the file.
5564 Unable to obtain FIR for the Voice Service File.
5565 Unable to obtain FID for the Voice Service File.
5566 Unable to add the DR entry.
5567 Unable to open the specified cabinet.
5568 Unable to open the specified cabinet.
5570 Unable to change the VSDN table entries.
5571 Unable to fix the Voice Service definitions.

56—Centralized Call Answering (CCA)

5601 Playing problem
5604 Record problem
5613 Login problem
5614 Greeting problem
5621 Change password problem
5625 Creating a message
5626 Adding a message
5627 Opening a message
5628 Updating a message
5629 Altering a message
5630 Closing a message

5631 Deleting a message
5632 Initial resources not available
5633 Could not clean up resources
5634 Failed to turn on message waiting indicator
5635 Entry called out of synchronization
5636 Call answering problems
5637 Code does not handle a particular case
5638 No additional information is available
5651 Extension dialling request failed
5653 Unable to get sent digit
5659 No memory is available to perform a function
5661 Data is corrupted or inconsistent on disk
5662 Mailbox hacking in progress

58—Voiceless Server (VLS)

5801 Designer Information
5802 Unable to open DR, the system profile, the customer profile, or the network database
5803 Unable to allocate heap or buffers
5804 The VLS could not register, or is terminating
5805 Not enough buffers to send VLS API results to the ACCESS Toolkit Communications Task (TC)
5806 VLS API results cannot be sent to the TC because the TC cannot be located
5807 VLS unable to access the customer profile or the network database
5808 Verify Password API failed to open/close the user's personal profile, or open/close the user's cabinet
5809 Error in trying to execute m_QueryMailbox or m_GetMBoxStat API
5810 Error in trying to execute m_GetMessageList or m_GetMessageUpdates API
5811 Error in trying to execute m_SetMessageCounter API
5812 Error in trying to execute m_QueryMsg API
5813 VLS could not retrieve the serial number
5814 Error in trying to execute m_SetMBoxEHNId API
5815 Password violation attempting to verify password
5816 Error executing the m_LocalToNetwork API
5818 Failed to set customer context

59—Tape Driver (TP)

5900 Tape drive reports exception during access
5901 SCSI device driver reports an exception during tape access

60—Program Resource Manager (PRM)

6001 Unexpected state was encountered

6002	Error in the Startlist
6003	Program cannot locate the PRM by name server
6004	Tasking error from the kernel
6005	PRM could not register its name with the name server
6006	Program could not be found in PRM table
6007	Control request received by PRM is not implemented
6009	An invalid command received by PRM
6010	Internal PRM resource limit on number of requests that can be deferred
6011	Too many programs in the PRM table or too many retries
6012	String is too long
6013	Overlay failed to be loaded on a node
6014	Node problem, node not found, or node is not healthy
6015	Program could not be loaded
6017	Auditing information
6018	No base directory in the startlist
6019	Node request is out of range
6020	Problem downloading operating system to other nodes: incorrect message
6021	Problem downloading programs to other nodes: incorrect packet count
6022	Problem downloading programs to other nodes: transmission error
6023	Bootrom of node failed to respond to PRM within time period
6024	Maximum number of bootrom retries
6025	Error starting diagnostic programs
6026	Diagnostic program finished with an unknown result
6027	Diagnostic program failed
6028	Report diagnostic status
6030	Auditor killed the program, or the watchdog killed the PRM
6031	Bad task result in sending audit commands to tasks or PRM
6032	Audit table is full
6033	Unknown audit result received from task or PRM
6035	Problem in opening hardware database
6036	Problem in closing hardware database
6037	Problem in reading, finding or opening hardware database
6038	Report of node information obtained from hardware database
6040	Problem in opening organization profile
6042	Problem in reading information from or closing organization profile
6043	Report of PRM action going to be taken
6045	PRM cannot send node update information to various programs
6046	Node in the Startlist is marked unconfigured in the hardware database
6050	Task error in sending program information
6051	Not able to start loader task, tasking error
6052	Send error during loading
6055	Unknown virtual node ID
6056	Error in spinning disk

6057 Tasking error in the SEND command
6058 Lost polling from node, or PRM received shutdown command
6060 Buffer error during rendezvous
6061 Other error not caused by buffer shortage during rendezvous
6065 Node reset command is rejected, system in switchover diagnostics
6067 Error occurred during online update of STARTLIST
6075 Switchover disallowed because it is not set up properly
6076 Switchover failed, failed to take bus controller
6098 Debugging information
6099 General PRM information: any useful user/state information

61—Maintenance Administrator (MA)

6101 Incompatible parent or sibling component in hardware database: requested component not added
6102 Invalid state for requested operation
6103 Error in propagating operation to child entities in the hardware database: entity not changed
6104 Failure of an online or offline test
6105 Operation rejected due to offline test in progress on this node
6106 Operation is invalid or not supported
6107 Operation would cause hardware database to become corrupted
6108 Operation succeeded on entity requested, but failed to propagate to child entities
6109 Offline test was started but result is unknown
6110 Location code passed to MA is not valid
6111 Attempt was made to change keys on an ma_Modify
6112 Offline test was requested for a voice card which does not contain any DSPs in the correct state or there are no DSPs on the VP at all
6113 Both DSPs on the VP failed the offline test
6114 First DSP on the VP failed the offline test
6115 Second DSP on the VP failed the offline test
6117 Offline test was requested on a T1 card with T1 links in the correct state
6118 Offline test failed on all T1 links tested
6119 At least one hardware fault was detected on T1 card tested
6120 T1 offline test not completed because of cause specified in SEERs
6121 TN supplied does not equal to TN retrieved.
6122 Waiting for previous request on component to be completed
6123 Waiting for node to be loaded
6124 Node could not be loaded
6125 Node in an unexpected state
6126 No modem on SBC card to be tested
6127 Hardware fault is detected on SBC card
6130 MA/VM II communication problem
6131 Hardware fault(s) detected on the utility card

6133 No voice ports found on node
6197 MA tasking problem
6198 PRM could not start program
6199 Time-out waiting for diagnostic result

62—Test Serial (TS)

6200 General TestSerial information
6201 I/O error occurred when writing to the file open against the transmit port
6202 I/O error occurred when reading from the file open against the receive port
6203 Diagnostics failed on the specified port
6204 TestSerial requires the “Rst_Modem” overlay for successful execution. The attempt to locate this task has failed
6205 I/O error occurred when opening a file to transmit data
6206 I/O error occurred when opening a file to receive data
6207 One of the ports requested to test is used for SEER printing
6208 One or both port names are blank (”)
6209 Could not open, read, or close the system OrgProfile file
6210 Argument string received by this program does not have a diagnostics ID
6211 Argument string received by this program does not have a “SEER flag”
6212 Argument string received by this program is not of the expected format

63—RS-232 Service Module (RSM)

6300 A fatal error occurred in the RSM operation. The RSM card may be out of position or it is defective
6301 The RSM clock returned INVALID TIME to user
6302 The RSM clock has been reset. Reset time difference is given out in seconds
6303 Nil time stamp returned to user because system ran out of buffers
6304 RSM major alarm turned on by the RSM software
6305 RSM minor alarm turned on by the RSM software

64—Operating System Program (OSP)

6401 The specified MSP node has lost physical detection of the Bus Controller card on the other MSP node. Applicable only on MSM systems.
6402 The specified MSP node can detect the Bus Controller card on the other MSP node. Applicable only on MSM systems.
6407 Firmware release on the Bus Controller card is incompatible with current release of the software. Applicable only on MSM systems.
6410 Error occurred in sending status update information to other programs (VCM). Applicable only on MSM systems.
6411 Attempt to enable MSP switchovers failed because the backup MSP could not detect the Bus Controller card on the active MSP Applicable only on MSM systems.

6412 Active Bus Controller is switching to Internal BC Timing Mode. Applicable only on MSM systems.

6413 Active Bus Controller has been successfully synced into External T1 clocking source. Applicable only on MSM systems.

6414 Active Bus Controller has been successfully synced into External T1 clocking source for long enough period of time that, if the problem in External T1 source occurs, the Bus Controller will go to Holdover Mode rather that revert to its own Internal BC Timing. Applicable only on MSM systems.

6415 Some problem has occurred in communication between the Bus Controller card and the OS software. Applicable only on MSM systems.

6417 Active Bus Controller going to Holdover Mode because it can no longer track the External T1 clock source. Applicable only on MSM systems.

6418 Backup Bus Controller going to Holdover Mode because it can no longer track the active Bus Controller. Applicable only on MSM systems.

6419 Active or backup Bus Controller is having problems tracking the clock source it should be tracking, but is still able to do it. Applicable only on MSM systems.

6497 Failure to register online ECS with system.

6498 General debug information useful only to system designers.

6499 General system information.

65—Debugger (DB)

6502 Improper memory area was accessed by software, causing ESBC sanity timer to become activated

6503 System was left in debugger.

6599 Debugger traceback output. The number followed by the word DBGTRACE identifies the trace sequence number

66—Disk Manager (DM)

6600 Start of disk sync

6601 End of disk sync

6602 Disk going offline

6603 Disk error during file system access

6604 Driver error during file system access

6605 Disk error during disk manager access

6606 Driver error during disk manager access

6607 Disk missing

6608 Cannot determine which disk is more current

6609 Disk offline

6610 Partner node fails to bring disk online

6611 Disk offline reminder

6650 Disk sync failure

67—SCSI Driver Utilities (SD_Tools)

6700 Out of memory
6701 Cannot talk to dm on home node
6702 Cannot talk to dm on partner node
6710 Cannot determine amount to sync
6711 Cannot initialize destination disk
6712 Cannot enter sync mode
6713 Sync primitive failure
6714 Cannot leave sync mode
6715 Cannot determine amount to sync
6716 Cannot initialize first disk in pair
6717 Cannot initialize second disk in pair
6718 Cannot leave sync mode
6720 Invalid request
6721 Cannot update surviving disk
6722 Cannot take unshadowed disk down
6730 Invalid request
6731 Invalid request
6732 No disk detected
6733 Cannot spin up
6734 Cannot determine size
6740 Out of memory
6741 Compare primitive failure
6742 Mismatch
6750 Format failure
6751 Cannot stamp disk
6760 Cannot read mi control block
6761 Cannot initialize mi control block
6762 Cannot configure mi maximum size
6763 Cannot move volume up
6764 Cannot move volume down
6765 Cannot add volume to mi control block
6770 Source disk too small for file system
6771 Destination disk too small for file system
6772 Source disk not online

68—David ESDI Emulation Handler (DEEH)

6800 An invalid command was received from the Meridian 1 that is not supported by Meridian Mail.
6801 The AML task did not pick up an AML message in time for proper execution.
6802 The receiving queue for messages from Meridian 1 is full.
6803 An unknown packet was received from the Meridian 1 that is not supported by Meridian Mail.

6805 The AML task is ready to start operation.
6806 The AML link is not established.
6807 Meridian 1 is not accepting Meridian Mail AML packet transmissions.

70—Hospitality Administration Server (HAS)

7001 Error was detected while the hospitality software was initializing
7002 Received a command from the PRM task indicating that HAS should kill itself or shut down
7003 Internal queue used to store commands from the PMS is full
7004 HAS failed to allocate its memory segment
7005 HAS could not get the required information from the customer profile
7006 Failed to open the networking database
7007 HAS is trying to register that it is running with name server
7008 HAS succeeded in its attempt to start
7009 Some type of tasking error has occurred
7010 Hospitality feature has not been enabled on the system
7011 Hospitality customer profile could not be accessed; probably not installed
7012 Tasking error occurred while trying to send to HAS command subtask
7013 If the Resync mode is turned on, then once an hour this SEER will be repeated as a reminder
7014 The DN is not a primary DN
7020 Error was encountered while a task was trying to access HAS
7030 Room check in command is being processed and an error has been encountered
7031 Room checkout command is being processed and an error has been encountered
7032 Room name change command is being processed and an error has been encountered
7035 HAS lost some HEAP memory
7036 Room re-checkin command is being processed and an error has been encountered
7037 Copy Mailbox Command is being processed and an error has been encountered
7038 Copy Mailbox Messages command is being processed and an error has been encountered
7039 Turn MWI On command is being processed and an error has been encountered
7040 Turn MWI Off command is being processed and an error has been encountered
7041 HAS is in the process of shutting down in a controlled manner
7042 Query Voice Counts command is being processed and an error has been encountered
7043 Invalid command was given to the HAS to execute
7044 HAS failed to allocate its memory segment
7045 File was searched for and not found
7046 Attempt to create a file failed
7047 Attempt was made to write to an internal file, the write failed
7048 Attempt was made to commit an internal file, the commit failed

7049 Attempt was made to add a new file to a cabinet, the operation failed
7050 Attempt was made to close an open cabinet, the operation failed
7051 Attempt was made to open a cabinet, the operation failed
7053 Search of the DR database failed
7054 Search of the DR database failed
7055 Attempt was made to read from an internal file, the read failed.
7056 Attempt was made to access the HAS recovery file
7059 Error encountered while processing a language change program
7060 Alarm could not be raised on the Front Desk Console alertline
7061 Attempt to convert a mailbox number to a networking address failed
7062 Failed to do a Send of information to the Meridian 1
7063 Multimatch was found when the HAS did a lookup in the corporate database
7064 Internal limit of the hash table has been reached
7070 Read Audit is running and an error has been encountered
7071 UnRead Audit is running and an error has been encountered
7072 Failed to open a personal cabinet in a post-checkout cabinet
7073 Failed to tidy a personal cabinet in post-checkout
7074 Failed to remove a personal cabinet in post-checkout
7080 Tried to find a FID for a PCOCAB given a volume ID
7081 Could not access the MHVS directory or could not find a MHVS directory on the System volume
7082 Could not open the PCORLIST file. It exists but for some reason could not be accessed
7083 Tried to read the PCORLIST and failed
7084 Attempted to do a pattern matching scan on a file, the scan returned a bad result
7085 Failed to create a record for the specified file
7086 Attempt to update the corporate directory database (read DR) failed
7090 Attempt to open the corporate Directory (DR) failed
7091 Internal table look up was attempted, a match was expected but not found using the sorted lookup, a linear lookup is being attempted.
7092 HAS checking for an existing DRQ file at startup
7093 Problem encountered while attempting to process a Corporate Directory (DR) update
7094 HAS will scan the Post Check Out mailboxes for obsolete ones if there is not PCORLIST on startup
7095 PCO task cannot update the PCORLIST
7096 While creating a PCORLIST an error was encountered
7097 Conversion of a hospitality system to MM9 is failing
7099 Failed to get the OM Data at has_driver for debugging

71—PMS Link Handler (PLH)

7101 Critical error was encountered during initialization
7102 PLH can’t receive from or transmit to the PMS or Meridian 1

7103 PLH can't transmit to the PMS or Meridian 1
7104 Communication is restored on the side specified in the SEER text
7105 Diagnostic message; indicates that the PLH can now receive from the PMS or Meridian 1
7120 Receive queue is full; probably missing ETX
7122 Tasking errors detected
7123 PLH isn't running
7125 RSM isn't there
7128 A SEND to the HAS failed or the HAS task cannot be located
7129 Bad command code from the HAS
7130 Failed to set the bypass switch
7132 Failed to raise an alarm on the guest administration console (GAC)
7134 Too many consecutive NAKS finally resulted in substitution of an ACK
7140 No ETX received, buffer full
7141 STX was received before an ETX, message discarded
7143 Timeout between PMS and MM will adjust timers
7198 Software error
7199 Link handler shutting down

72—Front Desk Console (FD)

7220 Diagnostic information SEER.
7221 Non-critical bug occurred
7224 Tasking error occurred.
7225 GAC failed to register with the Name Server on start up
7226 FD_Server Task failed to initiate.
7227 PRM is not available
7228 FD_Procs failed to locate a GAC program.
7230 Communication problems with HAS
7231 Communication problems with HAS or HAS PCO (post-checkout) list
7232 Communication problems with PLH
7233 Communication problems with the cabinet manager
7234 Timed out trying to retrieve GAC OM information
7235 Startlist parameters for the GAC are incorrect
7236 Startlist parameters for the GAC are incorrect
7237 Heap was lost
7238 Error while attempting to run tool to checkout all guests
7239 Error has occurred attempting to open the customer profile to access the customer hospitality greetings
7240 Error occurred changing the access mode of a profile

76—Selective Backup and Bulk Provisioning (SBR)

Refer to Class 76 SEERS

77—Remote User Procs (RU)

7701 Time stamp record not found
7702 Time stamp record is the wrong size

78—MR Server

7801 Wrong port number received
7802 Error in loading the datafile in memory
7804 Invalid password for open session
7805 Invalid command code
7808 Wrong password length
7809 Invalid tag for a field
7810 The response is too big and cannot be built
7811 The number of fields in the command is too big
7812 Application task returned invalid error code
7813 This command has an invalid session ID
7814 Invalid End Session received
7816 Invalid record type received
7817 Invalid length for a field
7818 MR_Server failed in initiating a session
7819 MR_Server received an invalid control command
7820 Field data is out of ad server interface range.
7821 Logic assert failed.
7822 unknown tag in request.
7823 Attempt to modify read only field.
7824 Inter-tasking error with TCRouter.

79—Datafile API's

7901 Invalid record type
7902 No field with the specified tag in the specified record
7903 Invalid version
7904 Specified action is not supported by the specified record
7905 Invalid value for the speicified field
7906 Invalid length for the specified field
7907 Record information expected in the flatfile
7908 Field information expected in the flatfile
7909 EOR expected in the datafile
7910 The version in the datafile has a wrong format
7911 Wrong record description in the flatfile
7912 Wrong field description in the flatfile
7913 No field code specified by PC
7914 Invalid field type
7915 Error in loading the flatfile

7916 Wrong record number
7917 Wrong field number

80—Name Server

8000 is_name server full
8001 is failed locate

81—Fax Handler (FH) codes

8100 No memory available to perform function
8102 Command that violates the protocol was received
8103 Value of one or more parameters are out of range
8110 Fax segment is not open
8111 Empty fax segment was encountered
8112 Fax operation was attempted on a non fax/FASCII segment
8113 DSP reports a bad page was received
8114 Bad fax segment was found
8116 Bad session ID
8130 Requested page could not be found
8141 VH timed out on a fax operation
8143 Bad fax block was found
8150 End of segment reached
8151 End of page reached
8152 Page limit exceeded
8155 Remote fax machine ID string received
8156 Session is being ended
8160 VCB does not exist
8161 VH is in the wrong state for the requested operation
8162 FCB is already linked
8163 FCB is still in use and cannot be unlinked
8164 Bad state for update of trimtab information
8165 Receive attempted in non-idle state
8166 Session is already open
8167 DSP reports a bad session
8168 Timed out waiting for a response from fax machine. Can happen on transmit or receive
8169 For receive only. The DSP has timed-out waiting for a response from the far end
8170 Carrier did not drop
8171 Invalid T30 command detected
8172 Unexpected DCN message from far end
8173 Poor line quality or condition
8174 No response from the far end machine
8175 Incompatible far end fax machine

8176 Block under WatchDog timeout
8177 Retransmit WatchDog timeout
8178 VPH aborted the session
8190 Tasking communication error has occurred

82—Fax ASCII Translation (FX)

8202 The amount of data read did not match the amount expected
8203 Version number of the font file does not match the version expected by this software release
8217 Insufficient memory was provided to allocate the needed data structure
8218 Internal consistency check failed

83—Fax Item Maintenance Service (FIM)

8301 Problem occurred during the playing of a prompt
8302 Problem occurred during the recording of voice
8303 Problem occurred while disconnecting the call
8304 Initial resources are not available
8305 Code to handle this situation is not implemented
8306 Invalid logon was attempted
8307 Error occurred during a file system operation
8308 Unexpected event has occurred in the lower layers
8310 Error occurred cleaning up old fax item definitions
8311 Fax or confirmation prompt, or both have been changed
8312 Error occurred reading a profile
8313 Service has been informed to shut down for online upgrade
8314 Failure occurred attempting to modify the update password
8315 Maximum allowable attempts to update the password has been exceeded
8316 Fax Item’s update password has been changed
8317 Volume on which the fax items are stored is greater than 95% full; service will not continue
8318 Error occurred during reception of the fax
8319 Error occurred during the creation of the cover page
8320 Premature disconnect was received during fax reception
8321 Attempted DR operation failed
8322 Error occurred trying to send a verification
8323 Error was returned from the fax handler layer
8324 Operation on a voice segment resulted in an error
8325 Maximum number of pages per fax reception has been exceeded
8326 Number of bytes read does not match the expected record size
8327 Fax item definition’s version number is inconsistent with this version of the software
8328 Error occurred trying to update the system to reference the new fax item
8329 Problem occurred obtaining the system prompt file

8330 Problem occurred obtaining the service prompt file
8331 Error occurred attempting to create the fax batch to send the verification
8332 Error in the fax protocol occurred
8333 Far end fax machine is incompatible with Meridian Mail
8334 Attempt to allocate memory on startup has failed
8335 Attempt to play a prompt was made when the prompt files were not open
8336 A bad page was received during fax reception
8399 Internal error

84—Multimedia Outcalling Agent (MCA)

8404 Fax message cannot be read because it is a message with a version number that is greater than the version allowed for this release of software
8408 Software has encountered an unexpected problem

85—Fax Printing (FP)

8504 Volume that is requested is not being serviced by this OCS or is not currently accessible
8505 Trying to send a message that is not a fax
8506 Failed to read fax or spool cabinet file information
8507 Version of fax is invalid

88—SNMP Server (SN)

8801 SNMP registration or de-registration is successful
8802 No SNMP features are installed
8803 Cannot open or read organization file
8804 No memory
8805 PC packet contains an invalid command type
8806 PC packet contains an invalid command code
8807 PC packet contains an invalid packet length
8808 Invalid registration requests, for example, the requested feature is not installed
8809 PC application not registered yet
8810 Cannot locate TC Router
8811 Cannot communicate with the TC Router or SNMP server
8812 Tasking error encountered - retry rendezvous/send operation
8813 PC application password is invalid
8814 Problem formatting SEER notification message to be sent to PC
8815 Problem formatting OM data message
8816 Problem opening the OM file
8817 Problem reading data from an OM file
8818 Invalid OM data type request
8819 PC application requests OM data with an invalid time period
8820 No data buffer allocated for SEER notification message

8821 Calling an unavailable function or entry
8822 No traffic data for the requested time period
8823 SNMP Reports feature is requested but networking feature is not installed
8824 More then 150 remote sites as defined
8825 Network site list is corrupted
8826 SNMP registration or de-registration fails
8827 Framer task error
8828 Cannot get data from SNMP utility dn

89—Framer (FRA)

8903 Framer task is not started
8904 Framer task is not initialized

90—Outcalling Server (OCS) codes

9001 Request type not configured for system
9002 Request type not part of this software release
9003 Error opening a user's personal profile or a voice service profile; user or voice service not found
9005 Failed to commit or write audit file
9008 OCS not found on system
9009 OCS was given an invalid time
9012 OCS is restarting or is initializing and cannot process requests
9015 Problem occurred with OCS's scheduling array
9021 Internal state problem occurred
9022 Bad return code received from a request-formation routine (RN, DNU, or FP)
9025 Requested service has not been implemented or is not in service
9029 Request invalid or cannot be serviced due to lack of channels with the correct capabilities

91—Message Waiting Indicator (MWI) Audit

9101 MWI audit task cannot register to the name server
9102 There is a problem trying to obtain information from a particular user
9103 One of several failures in preparing for an audit
9104 Time for a regular MWI audit
9105 MWI audit either has checked through all users or there was a problem
9106 Other task has triggered a MWI audit
9107 Other task has requested the MWI audit task to stop auditing
9108 Audit received a bad time
9109 Stale cabinet

92—Delivery to Non-users (DNU)

9204 Volume requested is not in the OCS set or is not accessible.

9205 Trying to send a message that is not a DNU message.
9206 Failed to read a DNU message or DNU cabinet file information record
9207 Message version is invalid
9209 Internal DNU error.

93—Remote Notification (RN)

9302 Volume requested not in STARTLIST parameter set for OCS
9307 RN recovery task problems
9308 RN configuration file was not converted or is corrupt
9309 Corrupt RN administration file

94—Admin Server (AS)

9401 Problems with the allocation of buffer spaces in the program
9402 Program registration failure or a explicit termination request from PRM
9404 Communication with the MMI server failed
9405 Failure to read system organization data
9406 A general or miscellaneous problem
9410 An admin server operation related to user administration has failed
9449 Communication with AMLH failed

95—AD Server (AS)

9501 Program registration failure or explicit termination request from PRM
9502 Communication with MMI server (MS) failure
9503 System organizational data read failure
9504 A system error occurred while processing a request
9505 Error provisioning a user as a result of invalid data or a system error
9520 PULL of data by ADS task from calling task failed
9521 PUSH of data by ADS task to calling task failed
9522 Buffer was overwritten before it could be PULLED
9523 Invalid caller
9524 Invalid data type
9525 Invalid request type
9526 No resources for arbitration
9527 Unable to lock the resource
9528 Not unique
9529 No match found
9530 Unable to find the requested resource in the lock table
9540 Invalid data
9541 Conflict with features
9542 Cannot be empty
9543 Cannot be 0
9544 Must be all digits

9545 Conflict with PDL number
9546 Conflict with the broadcast mailbox number
9547 Conflict with the name dial prefix
9548 Conflict with the PDL prefix
9549 Conflict with the AMIS prefix
9550 Conflict with a DNU prefix
9551 Conflict with a system distribution list
9552 Conflict with a remote site
9553 Conflict with a location prefix
9554 Must equal the system DN length
9555 Password is not long enough
9556 Field cannot be set as requested because operation is invalid given setting of other correlated fields.
9557 Integer data out of range.
9558 A RN time period was expected to be nill.
9559 A RN time period was expected to be non-nill
9560 Attempted to perform RN operations on a user who does not have RN capability
9561 Generated when a time period From time is after time period To time
9562 Generated when two or more time periods in a schedule overlap
9563 Flags an attempt to modify a field that was previously marked for deletion
9564 The data specified for a field is out of range.
9565 Attempt to modify RN Targets but no time period exists for specified target(s)
9566 Attempt to delete a RN Time period but both time periods of a RN Schedule were not nil
9567 DN Type must be Service in given context
9568 DN Type must be Numeric in given context
9569 DN Type must be Voice in given context
9570 The user must specifed null data for the field when it should not be null
9571 The user does not have capability to modify given field
9572 Attempt to specify a time period, however no targets exists
9573 Attempt to specify duplicate MWI DNs
9574 Time period was expected to be nil
9575 Given current context, DNAux cannot be null
9576 Give current context, PagerId cannot be null
9577 Two or more entry point settings are the same. They cannot be
9578 Two or more message sort order setting are the same. They cannot be
9579 The associated field setting must be none

98—Unviersal Link Message Analyzer (ULMA)

9802 Failed to initiate Data Acquisition task
9803 Failed to log message
9804 Failed to fetch message to Presentation Layer
9808 Message to Presentation Layer was lost due to slow console rate

9809 Messages between Data Acquisition and link handler are lost
9812 Changing to specified mode is not allowed
9813 Mode change is allowed but not from current mode
9815 The buffer required is too big
9816 Cannot register Data Acquisition task with link handler because the task is already being monitored
9820 Unregistered link found in hardware database
9823 Information debug message

100—System Operation (SYSOP)

10001 No LIFN in system
10002 Failed to save current dsp_config file
10003 Cannot change mode on voice service cabinet
10004 Keycode required to add nodes
10005 Expected more VPs in the Linked List than found
10006 Error during auto-configure of patching the VSA
10007 Error during VsaChgDefVSDN
10008 Error adding users during AutoConfigure
10009 Fatal errror converting personal profiles
10010 Minor error converting
10011 Fatal error calling co_FeatInstall
10012 Unable to get NEWVAR
10013 Conversion base SEER
10014 Failed to convert hardware database
10015 Failed to convert personal profiles
10016 Failed to convert system profile
10017 Failed to convert voice services
10018 Current SW release is not allowed for conversion
10019 CPTD Index out of Range, using generic CPTD
10020 Error - Old transition modules are detected
10021 Error - Mix of transition modules
10022 Error - Storage hours not valid for number of nodes
10025 MMP40 s/w loaded on non-MMP40 voice nodes
10026 MMP40 nodes detected, but not on the prime node
10027 Voice nodes have a mix of MMP40 and 68010
10028 A MMP40 node is being downgraded on node
10029 H/W detection found an unsupported MMP40 on system
10030 CPU detected is not supported
10031 Unsupported hybrid system is detected
10032 You may not expand to include VMUIF without Multi-Customer
10033 Operation has failed
10036 Component type out of range

10037 Invalid system type
10038 Failed to update the default baud rate in NVRAM
10039 Failed to convert the security file
10045 Platform migration is not supported
10046 Failed in the OM conversion
10047 Failed in the network database conversion
10048 Failed in the outcalling conversion
10049 Failed in the HVS conversion
10050 Too many voice ports are found on the system
10051 Flexible Disk related problem
10097 Operation aborted since D2D is enabled
10099 Operation cancelled by user

101—User Interface (UI) [Man Machine Interface (MMI)]

10101 Attempt to add already existing mailbox
10102 No users exist that satisfy the specified view criteria
10110 Attempt to open new cab with old one(s) still open
10111 Write user not preceded by read user
10112 Delete user not preceded by read user
10113 Write organization profile not preceded by read organization profile
10116 Client ID of list entry does not exist

102—User Interface (UI) [Man Machine Interface (MMI)]

10200 Error committing voice file
10201 Unable to read Security file
10202 Failed to write Security file
10203 Invalid administrator logon attempt
10204 Administrator password changed
10205 Alarm silenced by administrator
10206 Failed to open the security file
10207 Failed to close the security file
10208 Failed to find the security file record
10209 Failed to get the security file FID
10211 Failed to get system record
10215 Failed to open console printer
10216 Failed to create print buffer
10217 File in which MMI text is stored does not match MMI software
10220 Failed to verify that the customer exists
10221 Failed to set the RVU time stamp
10222 Failed to open DR
10223 Failed to close DR
10232 Failed to initiate polling task
10233 MMI failed to communicate with the MMI Server program

10234 Console port speed utility failed to communicate with PRM_PROCS
10235 Unable to obtain console port speed information for a specified node
10240 Problem with MMI system, directory server, or volume server
10241 Problem with MMI system, directory server, or volume server
10242 Problem with MMI system, directory server, or volume server
10243 Problem with MMI system, directory server, or volume server
10244 Problem with MMI system, directory server, or volume server
10245 Problem with MMI system, directory server, or volume server
10246 Problem with MMI system, directory server, or volume server
10247 Problem with MMI system, directory server, or volume server
10248 Problem with MMI system, directory server, or volume server
10249 Problem with MMI system, directory server, or volume server
10250 Could not allocate storage
10251 Failed to open network database
10252 User pressed [Cancel]
10272 Failed to print OM files, such as traffic and voice menu
10273 Failed to obtain the traffic OM record
10275 Failed to view next SEER in SEER file
10278 MMI was unable to get the specified alarm status because of a communication problem
10280 Failed to allocate storage for organization operation
10281 Failed to obtain resources for organization operation
10282 Failed to read organization profile
10283 Failed to write organization profile
10284 Failed to restart OM server
10285 Failed to close all files
10286 Failed to restart or stop SEER printer
10287 Failed to check User Mailbox
10289 Failed to access the customer profile during customer administration
10290 Failed to view user; possible data corruption
10292 95% or 100% of mailbox limitation reached
10297 Failed to notify OCS of user or organizational changes
10298 Failed to modify/add dynamic personal or organizational records
10299 Failed to record personal verification

103—User Interface (UI) [Man Machine Interface (MMI)]

10300 Problem with MMI system, directory server, or volume server
10301 Problem with MMI system, directory server, or volume server
10302 Problem with MMI system, directory server, or volume server
10303 Problem with MMI system, directory server, or volume server
10304 Failed to allocate storage to modify list
10305 Reset occurred during an add, change, or deletion to a list; no change made

10306 Failed to validate mailbox for lists
10307 Failed to read list of mailboxes
10308 Failed to close all files in list operation
10309 Failed to obtain storage for list operation
10310 Failed to obtain resources for list operation
10311 Failed to add list
10312 Failed to delete list
10320 Failed to find hardware database
10321 Failed to open hardware database
10322 Failed to initiate ScreenTask
10323 Disk pair's partner locations don't match
10330 Failed to find hardware record
10331 Failed to open hardware database
10332 No heap
10333 Failed to read hardware database
10334 Failed to update Cobra with the new port speed
10335 Failed to update the hardware database
10336 Node number out of range
10337 Invalid baudrate
10340 Could not obtain volume status information
10341 Backup failed
10342 Failed to initiate backup task
10343 UI Main: attempt to login from user admin terminal without feature enabled
10344 Back up attempted when one was already in progress
10350 Failed to retrieve audit trail records
10351 Incompatible version number for audit trail
10360 Failed to obtain resources for COS operation
10361 Failed to read the specified COS
10362 Failed to write the specified COS
10363 Failed to delete the specified COS
10364 Failed to find COS
10370 Invalid severity assigned to SEER: Remap Table
10371 Error writing SEER record
10380 Selective Restore; general error code
10381 Data conversion error
10399 Failed to register the MMI

104—Voice Menus, Announcements, Time-of-Day services, and Fax Information Service (VMU)

10402 Unable to disconnect to Meridian 1 operator
10403 Unable to properly disconnect the service
10404 Unable to initialize system and Voice Service prompt files
10405 Unable to play a prompt from the Voice Service prompt file

10406	Unable to call revert DN
10407	Unable to open the system or Voice Service prompt files
10408	Unable to switch to specified service
10409	Class of service file is unknown
10410	Voice service file version is not compatible
10411	Error reading the Voice Service file
10412	Voice recorded indicators are corrupt in the Voice Service file
10413	Unable to play voice in the service
10414	No greeting or choices were found in the Voice Service file
10415	Unable to place a call
10416	Unable to add to the service stack
10417	Unable to initiate the Voice Service task
10418	Unable to bind start and clean up procs.
10419	Unable to query VSS information
10420	Unable to perform close voice on VCB
10421	Unable to close Voice Service
10422	Menu was found instead of the expected announcement
10423	Announcement was found instead of the expected menu
10424	Unable to get a digit from the VSS
10425	Unknown menu action choice found; file corrupt
10426	Unknown or invalid action found; voice menu service corrupt
10427	Error code was given in the ”voice I/O event” entry
10428	Time-of-day service file version is not up-to-date
10429	Object file not found or problem reading the time-of-day file
10430	Cannot answer incoming call
10431	Cannot send peg counts to OM
10432	Unable to open system file
10433	Unable to convert the service ID and customer number to a search pattern
10434	The Service Application was asked to terminate because the online update is about to begin
10435	A Voice Menu Service was found instead of the expected Fax Information Service
10436	An Announcement was found instead of the expected Fax Information Service
10437	A Fax Information Service was found instead of the expected Voice Menu Service
10438	A Fax Information Service was found instead of the expected Announcement
10439	There was a problem in starting a fax transmission
10440	The sponsor fax item could not be added to the list of fax items because of incorrect id, not a fax item or no image
10441	The batch fax callback delivery has detected an error
10442	The service could not find the service id entered
10443	The sponsor service id in the session profile is not a fax item
10444	The fax item does not have a faxed-in faxed image

10445 Fax batching (that is, creating and collecting all the faxes selected) detected an error
10446 The session profile was not configured correctly to handle fax selection

105—Voice Service Administration (VSA)

10501 Unable to set up a data menu
10502 Unable to delete a Voice Service file
10503 Unable to validate a Voice Service file ID
10504 Unable to translate a customer number
10505 Unable to determine the correct VSH service type
10506 Unable to print Voice Service data
10507 Form or menu requires more memory than in the CLI heap
10508 Unable to read system/customer profiles on startup
10509 Failed to communicate with the MMI server
10510 Info only; service definition of VSDN entry has been added, modified, or deleted
10511 Unable to read the hardware database
10512 Unable to read time-of-day file
10513 Unable to write time-of-day file
10516 Unable to read the session profile detail file associated with a VSDN
10517 Unable to write the session profile detail file when trying to save a VSDN entry
10522 Unable to write Voice Service profile
10531 When trying to create voice, record was found to be missing
10532 Unable to read, create, or set up an announcement service file
10533 Unable to write announcement service file
10534 Unable to read, create, or set up a Fax Information Service file
10535 Unable to write a Fax Information Service file
10541 Unable to read, create, or setup a through-dial service file
10542 Unable to write through-dial service file
10551 Unable to read the channel allocation table
10555 Unable to access the hardware database
10558 T1 channels are out of sync/in sync with DSP ports
10559 Channels on the same or different node or link which share the same DN have different capabilities or types / T1 channel data & DSP port data are out of sync
10560 Unable to read the system profile
10561 Failed to validate DN
10562 Unable to read or create the VSDN file
10563 Unable to write the VSDN file
10564 Unable to delete DN from VSDN file
10565 Unable to set up VSDN data menu
10572 Unable to delete voice record from Voice Service file
10573 Unable to read, create, or set up a voice menu service file
10574 Unable to write voice menu service file

10581 Unable to read, create, or set up a voice form service file
10582 Unable to lock a form information file, or delete caller responses
10583 Unable to access a voice record in a voice form service file
10584 Unable to write voice form service file
10585 Unable to update status of voice form service file in corporate directory
10586 Unable to set up list of fields data menu
10587 Unable to read, create, or set up a field in a voice form service file
10588 Unable to manipulate a field in a voice form service file
10589 Unable to validate the mailbox field on the voice form due to a DR error
10591 Existing Voice Service cabinet will not be replaced by new VS cabinet and files
10592 Warning that cabinet still contains some files; cabinet not deleted
10593 Problem occurred with a service definition file listed in this SEER when moving cabinets
10595 Source and destination cabinets are the same
10596 Cannot retrieve a proper garbage collection cabinet from sc_types or one cannot be opened
10597 Voice service file name cannot be found in the Voice Service cabinet

106—Thru-dialing (TD)

10601 Initial resources not available
10603 Bad opcode received from VH
10604 VP synchronization error
10605 Failed to make the connection request
10606 Failed to make the connection request during custom revert
10607 Asking for help when none is expected
10608 Unknown time–out state
10609 Could not clean up resources
10610 General purpose error code
10611 The thru dial application was asked to terminate because the online update is about to begin.

107—Voice Prompt Maintenance (VPM), Remote Activation (RA)

10701 Playing problem
10702 Record problem
10703 Disconnect problem
10704 Initial resources not available
10705 Code does not handle all possibilities
10706 Attempt to access with invalid password
10707 Bad operation on a file
10708 Some synchronization or miscellaneous error
10709 Service file is currently being opened by another application
10710 Service ID being mapped is not a service information address

10711 Voice recording changed using Voice Prompt Maintenance
10713 The maximum number of attempted password changes was exceeded
10714 Unable to change UPDATE password in voice service file
10715 The Voice Prompt Maintenance/Remote Activation was asked to terminate because the online update is about to begin.
10716 The voice service UPDATE password has been changed by VPM
10799 The software encountered an unexpected problem. The problem may be caused by “binding startup” procedures.

108—Network Administration (NA)

10801 Failed to gain access to network database
10802 Failed to gain access to network message transfer agent
10803 Failed to get dynamic information from terminal
10804 Failed to gain access to cabinet access method
10805 Failed to gain access to disk data interface
10806 Failed to gain access to message transfer agent
10807 Failed to gain access to directory server
10808 Error occurred while using command line interpreter
10809 Error occurred while using remote voice services
10810 Failed to gain access to the hardware database
10811 Failed to gain access to administration base

109—Remote Voice Services (RVS)

10901 When prompted for DN, user entered the cancel key; the VceSize will not be valid
10902 All channels are busy so call cannot be placed
10903 Error during call processing
10904 Tasking error with Voice Service task
10905 Failed while opening or creating voice
10906 Failed to record or stop recording
10907 Failed to play voice
10908 Errors in disconnecting process
10909 VP/VPDH time-out
10910 VPIO task crashed
10911 Failed to delete voice record
10912 RVS failed to make a call to the DN specified by the user
10914 Outgoing call failed due to a collision
10915 Call disconnected before the RVS component determined it had been answered

110—Outcalling Agent (OCA)

11007 Delivery to nonuser message cannot be read because it is a message with a version number greater than the version allowed for this release of software
11011 Software encountered an unexpected problem

11013 RN configuration file is corrupt or was not converted

111—Voice Forms Service Unit (VFSU)

11101 Initial resources were not available to start up the service
11102 Caller's response file could not be created
11103 Request for something which has not been implemented has been received
11104 Error has occurred while trying to play voice
11105 Error was encountered while cleaning up resources
11106 Attempt to revert the caller has failed
11107 Forms manager has been deemed to have a major problem which prevents further use of this service
11108 Problem has occurred while attempting to access a caller's response file
11109 Problem has occurred while attempting to access a voice form definition file
11110 Form definition file for a particular session is found to be out of service
11111 Lower level error has been encountered which is beyond control of this service

112—Restore and Recovery (RR)

11204 Error occurred while trying to clean out messages from the user profiles
11205 Error occurred copying the prompts from tape to VS2
11206 Error reading the features of the system from VS1
11207 Could not copy user profiles from volume VS901 or VS902 to the destination user volume
11211 Error occurred while trying to restore VS1 from a disk backup
11212 Error occurred during the restore of a volume from tape to disk
11213 Error occurred while checking the user cabinets against the directory
11214 Error occurred while checking the user entries in the directory for matching cabinets
11217 Error occurred while synchronizing the Voice Services to the directory
11218 Error occurred while synchronizing the directory to the Voice Services
11219 Error occurred trying to synchronize the voice forms for the system
11224 User aborted restore
11225 Tape retension failed
11226 The system version has been verified

115—Network Dialing Translation (DT)

11501 NA failed to gain access to the Network Database
11502 Error occurred while using the command line interpreter

121—Circular files for ULMA (CF)

12101 Read to the last record
12102 Perform a write operation in read mode
12103 File is already open

12104	The file status is incorrect
12105	The file path is invalid
12106	Failed to complete the operation
12107	The file is corrupted
12108	The requested record is not in the file
12109	The number of bytes read is not equal to the size of buffer read
12110	The MarkFCB is dirty, it is marked
12111	The MarkFCB is not marked

BOOTROM diagnostic codes

System configuration diagnostics

000F	SP configuration setup tests

SBC diagnostics

0035	CPU self tests
0036	BOOTROM checksum tests
0037	Exception handling tests
0038	Memory mapper tests
0039	Memory protection tests
003A	Mapper adders tests
003B	Timer tests
003C	TAP register tests
003D	TAP data lines tests
003E	TAP memory tests

RSM diagnostics

006F	RSM watchdog timer test
0061	Address decoding test
0062	Data lines test
0063	Address lines test
0064	Bank control tests
0065	Control/status registers tests
0066	Configuration register test
0067	Static RAM test
0068	Bytewise memory test
0069	SBC-driven UART loopback test
006A	Peripheral interrupt test
006B	Real time clock sanity test
006C	Real time clock oscillator test
006D	Real time clock interrupt test
006E	SBC to RAM diag. download test
0071	MPU 68010 self tests
0072	MPU exception handling tests
0073	MPU address lines test
0074	Shared memory arbitration test
0075	MPU serial ports access tests
0076	MPU serial port interrupt test

SBC DRAM diagnostics

0031 Data lines test
0032 Address lines test
0033 DRAM memory tests
0034 Parity tests

2M RAM1 (bottom 2Mbytes) diagnostics

0011 Data lines test
0012 Address lines test
0013 DRAM memory tests
0014 Parity tests

2M RAM2 (upper 2Mbytes) diagnostics

0021 Data lines test
0022 Address lines test
0023 DRAM memory tests
0024 Parity tests

HABC diagnostics

0051 Data lines test
0052 Address lines test
0053 DRAM memory tests
0054 Parity tests
0055 Polling RAM tests
0056 Register tests
0058 TAP register tests
0059 TAP data lines tests
005A TAP memory tests

SCSI/RAM diagnostics

0041 Data lines test
0042 Address lines test
0043 DRAM memory tests
0044 Parity tests
0045 DMA register tests
0046 DMS transfer tests
0047 SCSI bus tests
0048 SCSI disk diagnostics

Internal states of VSS (shellstate)

0	VSS loaded, logging in with handlers
1	Logged on, no service on call (idle)
2	Allocated for a service
3	Connecting an incoming call
4	Making an outgoing call
5	Waiting for service completion on collision
6	Call is established
7	Adding a third party to a call
8	Transferring a call
9	Disconnecting a call
10	Shutting down the service or VSS
11	Waiting for time-out to initiate call transfer

Call progress status

1	Call is established
3	Called party is being rung
8	Called party is busy
9	Call request is rejected, receiving re-order tone
11	Call connection attempt failed
12	Call requests collision
13	Call transfer/conference/re-connect completed

Supplementary information to call progress status (Voice Services generates SEER)

1	Waiting in ACD queue
2	Waiting in Attendant queue
3	Trunk has been seized
4	Call is parked
5	Waiting in ESN off-hook queue
6	Idle ACD agent is found and being rung
7	Idle attendant is found and is being rung
8	Blocked due to no resources
9	Access restricted
10	Bad originating DN
11	Bad called DN
12	Internal error of the switch
13	Incomplete originating DN
14	Incomplete called DN
15	Originating party is busy
16	Originating party is maintenance busy

17	500/2500 set is on-hook
18	Originating party disconnects before call is answered
19	Originating party is multiple appearance single call arrangement with another user using the DN
20	Invalid TN
21	Incorrect customer number
22	Initiate transfer failed
23	Re-connect failed
24	Complete conference failed
25	Complete transfer failed
26	Other party does not answer
27	Unrecognized signal
28	Long silence is detected
29	SIT-based tone is detected
30	Call redirectionf failed.
31	Bad billing DN.
32	Bad client/subscriber's DN.
57	Digit outpulsing completed.
58	Pager tone is detected
59	Voice is detected
60	Short silence is detected
61	Collision with the same service
62	Collision with a different service
63	GTI internal error

Service ID codes

0	Voice Messaging
1	Call Answering
2	Express Messaging
3	Through-dialing
4	Analog Transfer Agent (Networking)
5	Voice Menus
6	Voice Announcements
7	Meridian Access
8	Outcalling Agent
9	Voice Administration service, "IVT" service
10	Voice Prompt Administration service
11	Time-of-Day Control service
12	Hospitality Voice Messaging
13	Hospitality Post-checkout Service
14	Remote Activation Service
15	Delivery to Non-User Service
16	Remote Notification Service

17	Test Tool Service
18	Open Access Transfer Agent
19	Voice Form Transcription Service
20	Voice Form Call Interpreter.
21	CCA Change Greeting Service
22	Fax information service
23	Fax item maintenance
24	Same-call fax on demand delivery
25	Out-call fax on demand delivery
26	Multimedia outcalling agent

SCSI Sense Key Codes in decimal (first number in SEER 6603)

Sense key codes	Meaning	Disk	Tape
0	No sense key information	Successful command	Successful command
1	Recovered error	Command successful, some recovery done ***Note:*** for some mode settings the last command may have terminated before completing	Command successful, some recovery done
2	Not ready	Logical unit addressed cannot be accessed	No cartridge in drive
3	Medium error	Flaw in medium; error in recorded data; may also indicate hardware error	Unrecovered data error
4	Hardware error	Non-recoverable hardware failure while performing a command or during self-test. Includes: SCSI interface parity error, controller failure, device failure.	Non-recoverable hardware failure while performing a command or during self-test. Includes: SCSI interface parity error, controller failure, device failure, etc.
5	Illegal request	Illegal parameter in CDB (command descriptor block). Additional parameters supplied to some commands (medium may have been altered).	Illegal parameter in CDB or conflict with Mode Select parameters. Tape not positioned to end of data. Attempt to write to DC300XLP tape. Attempt to write in QIC-24 mode.
6	Unit attention	Reset occurred since last selection by initiator (includes power off/on)	Reset occurred since last selection by initiator (includes power off/on) Cartridge changed with LED on
7	Data protect	Write operation attempted on write protected device	Write operation attempted on write protected cartridge. Wrong type of cartridge used.

Sense key codes	Meaning	Disk	Tape
8	Blank check	On read: A write-once device encountered blank medium or format-defined end-of-data. On write: a write-once device encountered non-blank medium.	End of data on tape. Wrong data format on tape.
9	Vendor unique	Not supported.	Not supported.
10	Copy/Compare aborted	Error detected on source or destination device during COPY, COMPARE or COPY AND VERIFY operation.	Not supported.
11	Aborted command	Disk drive aborted the command. The initiator may try again.	Disk drive aborted the command. The initiator may try again.
12	Equal	SEARCH DATA command has satisfied an equal comparison.	Not supported.
13	Volume overflow	A buffered peripheral device has reached the end of medium, and data remains in the buffer that has not been written to the medium.	Physical end-of-tape reached and write data remains in buffer.
14	Miscompare	Source data did not match data read from medium.	Source data did not match tape data during VERIFY command.

SCSI error codes in decimal (second number in SEER 6603)

0	No additional sense information
1	No index/address mark found
2	No seek—disk drive could not complete a seek operation
3	Write fault—fault occurred during a write operation
4	Drive not ready
5	Drive not selected
6	No track zero—disk drive could not re-zero the positioner
7	Multiple peripheral devices selected
8	Logical unit communication failure
9	Track following error

10	Error log overflow
12	Write error/auto reallocation failed
16	ID field CRC/ECC Error: could not read sector ID without CRC error
17	Unrecovered Data Error: block could not be read despite retries
18	ID field address mark not found: no address mark for a sector header
19	Data address mark not found: no address mark for a sector data area
20	Record not found—improper block sequence or block cannot be read
21	Seek / positioning error: data header cylinder address wrong
22	Data synchronization mark error
23	Recovered read error (with retries): error recovered without ECC
24	Recovered read error (with ECC)—error recovered using ECC
25	Defect list error: error accessing one of disk drive’s defect list
26	Parameter overrun: parameter list is too long for the drive
27	Synchronous transfer error
28	Primary defect list not found
29	Compare error: data wrong in VERIFY or WRITE AND VERIFY commands
30	Recovered id with ECC correction
32	Invalid command operation code issued to disk drive
33	Invalid block address given to disk drive
34	Illegal function for device type
36	Illegal field in command descriptor block
37	Invalid/unsupported LUN: bad logical unit number in command
38	Illegal field in parameter list
39	Write protected: disk drive is write protected
40	Medium changed: NOT READY followed by READY condition
41	Power up or reset: disk drive has been reset
42	Mode select changed condition/log parameters changed
43	Microcode download or copy error since host cannot disconnect
44	Command sequence error
45	Overwrite error on tape update in place
47	Commands cleared by another initiator
48	Cannot read medium: incompatible/unknown format, cleaning cartridge
49	Format failed
50	No defect spare location available: no remaining spare tracks
51	Tape length error
55	Rounded parameter
57	Saving parameters not supported
58	Medium not present
59	Sequential repositioning error
61	Invalid bits in identify message
62	Logical unit has not self-configured yet
63	Changed operating definition/microcode has changed
64	RAM failure or other internal component diagnostic failure

65	Data path diagnostic failure
66	Power on or self-test diagnostic failure
67	Message reject error—initiator rejected message from disk drive
68	SCSI controller hardware/firmware error
69	Reselect failed—timeout detected while attempting reselection
70	Unsuccessful soft reset
71	Parity error—parity error on SCSI bus results in unrecoverable data
72	Initiator detected error
73	Inappropriate / illegal message
74	Command phase error
75	Data phase error
76	Logical unit failed self-configuration
78	Overlapped commands attempted
80	Write append error/position error related to timing
81	Tape erase failure
82	Tape cartridge fault
83	Media load/eject failed / medium removal prevented
90	Operator request (medium removal/state change/write protect or permit)
91	Log error / threshold condition met
92	RPL status change/spindles synchronized or unsynchronized
128-143	Correctable ECC (low nibble = length) (Seagate)
144	Configuration error (Seagate)
160-175	Self-test error (low nibble = test #) (Seagate)
176	Servo command time out (Seagate)
177	Servo command failure (Seagate)
178	Servo command rejected (Seagate)
179	Servo interface failure (Seagate)
192	Defect list full (Seagate)
193	Failure writing G list (Seagate)

SCSI driver errors

129	Selection timeout
130	Unexpected disconnect
131	Bus reset
132	Parity error
133	Timeout

tt htape error codes

02	Not ready: no tape drive
03	Medium error: bad tape
04	Hardware error: bad drive
06	Unit attention: drive reset

07	Data protect: tape write-protected
16	See SCSI sense keys
17	Time-out: tape operation timed out
18	SCSI driver exception
19	No tape drive present
20	Seek error: tape positioning operation out-of-bound.

Operating system error classes

1	Run time errors
2	Tasking errors
3	I/O errors
4	User errors
5	PIO errors
6	Kernel errors
7	Program errors
8	Boot errors

Run time errors

0	Bbus error
1	Divide by zero
2	Odd address
3	Illegal construction
4	Range error
5	Stack overflow
6	Privilege exception
8	No pool
9	No control blocks
10	Segment error
11	Region timeout
12	Parity error
13	Kernel error
14	Floating point overflow
15	NIL pointer reference
16	Set error
17	Long integer error
18	Long integer divide error
19	Multiplication overflow
20	Exit error
21	Mini-error
22	Invalid negative input
23	Floating point format error

Task result errors

1	Accept time-out
4	Invalid task ID
5	Reply error - accepting task died
7	Invalid time given to WAITTIME
9	Initiate or re-initiate error
15	POOL error

17	Mini-task tried to initiate another task
21	No appropriate buffer for tasking operation
22	No transmit buffer, network overloaded
23	Invoker stack overflow
24	Invalid push/pull parameters
25	Parameter mismatch in remote operation
26	Entry not found in remote operation
27	Remote communication problem
28	trlocale
29	Bad event passed to SetTimer
30	No control blocks

I/O error results (Helix IO results—IO error class)

-1	End of file
0	No error
1	Mixing I/O operation types (e.g. READLN, BLOCKREAD)
2	Resource limit reached
20	Illegal character written to terminal driver
30	Out of bounds
40	Attempting I/O operation on unopened file
41	File already open
42	File not committable
43	Illegal attempt to seek
44	Bad file set ID
45	Server not found
46	Operation not allowed across file systems
47	Already logged on
48	Client elix resource limit
49	Value overflow
51	Accept timeout
54	Invalid task ID
55	Reply error—accepting task died
57	Invalid time given to WAITTIME
59	Initiate or re-initiate error
65	Pool error
67	Mini-task tried to initiate another task
71	No appropriate buffer for tasking operation
72	No transmit buffer, network overloaded
73	Invoker stack overflow
74	Invalid push/pull parameters
75	Parameter mismatch in remote operation
76	Entry not found in remote operation
77	Remote communication problem

78	trLocale
79	Bad event passed to SetTimer
80	No control blocks
81	Server accept time-out
84	Bad task
100	Mismatch in server/client interface
101	Bad pathname
102	File not found
103	Cannot create
104	Attempt to create file with duplicate name
105	Bad address
106	I/O operation attempted outside file limits
107	Mode conflict
108	Bad object type
109	Access denied
110	Invalid password
111	Server does not support command
112	Device off-line, could not communicate
113	Server resource limit
114	Parity error reading data from server
115	Disk write-protected
116	No directory
117	Attempt to write read-only file
118	Bad access mode
119	Bad remote pointer
120	Transaction timeout on close/commit of file set
121	Date not set - attempted file commit with no time
130	No directory on floppy
131	Too many files on floppy
132	No room on volume
133	New volume mounted
134	Time-out on volume
140	Serious error level
148	Invalid site address
149	Protocol error between communication servers
150	Communication link failure
151	Remote site failure
152	FID not recognized by server
153	Software consistency check failed
154	File set transaction ID invalid
155	Bad volume ID in FID
156	dpares field input non-zero
157	Invalid UNIX object type

158	File exists already
159	Source pathname invalid
160	Illegal parameter
161	Destination pathname invalid
162	Bad volume ID in destination FID
163	invalid input parameter
164	Bad password input
165	Bad volume control parameter
166	Invalid agent ID on logout
167	No std delete of directory
168	Bad instance key
169	Read error in user data
170	Write error in user data
171	Bad agent or object task ID
172	Bad command length
173	Bad volume ID in source FID
174	Permission denied
175	Bad block count
176	Bad sequence number
177	FOS data timeout

User errors

1	Audit failed
2	Switch over attempt before backup ready
3	User initiated switch over - not an error
4	Bus controller detected bus error

Kernel errors

1	No supervisor
2	Daddy no buffers
3	Supervisor no buffers
4	Rendez bad buffer
5	Bind no delay
6	Illegal bind
7	Non-nil event queue
8	Error parity
9	Unknown interrupt
10	Map not present
11	Map out of range
12	Map supervisor protected
13	Map write-protected
14	No debug buffers
15	Bad queue

16	Bad monitor code
17	Bad monitor data
18	Bad OSP code
19	Bad OSP data

Program control errors

1	No file
2	Locale gone query
3	Disk read error
4	Bad file type
5	Link error
6	Unable to create locale
7	init error
8	Execution error
9	Bad PD
10	No task segment
11	No program
12	Program error
13	No buffer
14	Interface mismatch
15	Bad program ID
16	No segment
17	No PD File
20	No buffer memory
22	No heap init
25	No openPD memory
26	Wrong PD version
27	Error reading PD
28	Old PD
29	Monitor mismatch
30	Version error
32	Used units error
33	Out of heap
34	Adopted error
35	Bad state
36	No program agent
37	Not the right parent
38	Not an orphan
39	Access denied
40	Trying to load a new segment
41	Try to start process again

AutoAdmin PC error codes

Class 201 AutoAdmin API

20100	Could Not Allocate Memory
20101	Inalid Transaction State
20102	Init Failure
20103	Invalid Session ID
20104	Invalid Transaction ID
20105	Wait Failed
20106	Could Not Set Event
20107	Could Not Reset Event
20108	Null Memory Deallocation
20111	Empty Data Structure
20112	Read To End Of Data
20113	Null Element Reference
20115	Duplicate Tag Specified
20116	No Matching Tag Found
20117	Transaction Not Removed
20119	Transaction Timed Out
20120	Delete Transaction Failed
20121	Transaction Read Failed
20122	Failed To Clear Memory
20124	Invalid Session ID
20125	Exceeded Maximum Sessions

Class 202 PC-MR

20200	No Transaction Server
20201	No Transaction
20202	Transaction Server Busy
20203	Parsing Error
20205	Packet Buffer Full

Class 203 PC Datafile and API

20301	Invalid record type specified
20302	No field with the specified tag in the specified record
20303	Invalid version
20304	Specified action is not supported by the specified record
20305	Invalid value for the specified field
20306	Invalid length for the specified field
20307	Datafile corrupted
20308	Datafile not found
20309	Datafile not loaded

20310 Invalid field type

Class 204 PC-TC

20401 Memory, registry, PCTC.DLL error
20402 Invalid transaction ID
20403 Invalid command issued
20404 Invalid site ID
20405 Request missing data
20406 Invalid request length
20407 Invalid event ID
20408 Different transaction ID
20409 No request in progress
20410 Session not established
20411 Cannot read registry
20412 Session is being initiated
20413 Cannot initiate session
20414 Session already active
20415 Cannot establish connection
20416 Session is being terminated
20417 End session request error
20418 Drop link command failed
20419 MSLink down
20420 Request in progress
20423 Send request timeout
20424 Receive reply timeout
20426 Cannot send request
20429 Invalid toolkit ID
20432 Wrong reply message received
20440 Link info: Dialing modem
20441 Link info: Modem connected
20442 Link info: Initiating link
20445 Link info: Shutting down MSLink
20446 Link error: Timeout shutting down MSLink
20457 Link error: Retry limit exceeded
20458 Link error: Link is down
20459 Link error: Incompatible version
20460 Link error: Lost synchronization
20461 Link error: No reply to teminate link request
20462 Link error: Internal system error
20463 Link info: PC is in sync with Meridian Mail
20464 Link info: COM port error cleared
20465 Link error: Unknown signal

20467	Link error: Cannot connect to Meridian Mail
20470	Link error: MSLink signal error
20471	Link error: Connection lost
20480	COM I/O error: General I/O error
20481	COM I/O error: Specified device not found
20482	COM I/O error: Specified device in use by other application
20483	COM I/O error: Cannot initialize COM port
20484	COM I/O error: Error writing character
20485	Modem error: Cannot initialize modem
20486	Modem error: Connection timeout
20487	Modem error: Unknown modem response
20488	Modem error: Connection failed
20489	Modem error: Disconnection failed

Generic PC and UNIX error codes

Code	Symbolic constant	Description
0	MMS_OKAY	Success
1	MME_BAD_PARAMETER	Bad parameter passed to function
2	MMS_NOT_READY	No result available yet
3	MME_TIMEOUT	No result—command timed out
4	MME_NO_LOCAL_MEMORY	Out of memory (local)
5	MME_INVALID_CLASS	Invalid application class
6	MME_NOT_ACQUIRED	Command invalid before “Acquire”
7	MME_NOT_REGISTERED	Calling process is not registered with the LH
8	MME_ALREADY_REGISTERED	Calling process is already registered with the LH
9	MME_BUSY_DN	DN is busy
10	MME_NOT_ANSWERED	No answer at DN
11	MME_CALL_REORDER	Call has been rejected
12	MME_CALL_FAILURE	Call connection attempt has failed
13	MME_CALL_COLLISION	Call resulted in collision
14	MME_OPER_TIMEOUT	Timeout performing operation
15	MME_CALL_DISCONNECTED	Call has disconnected
16	MME_NO_QUEUE_SPACE	Msg send failed: no queue space
17	MME_BAD_PROCESS_TYPE	Invalid process type
18	MME_API_QUEUE_DOWN	System error accessing API queue
19	MME_EVENT_QUEUE_DOWN	System error accessing Event queue
20	MME_MONITOR_EXISTS	Monitor function already installed
21	MME_NOT_MONITOR	Client is not the monitor process
22	MME_FUNCTION_NOT_AVAIL	API not usable: wrong ACCESS ver.
23	MME_BAD_SEM_KEY	Could not access/open a semaphore
24	MME_BAD_PATH	No file at path specified
25	MME_FORK_ERROR	Couldn’t fork process at path
26	MMW_ALREADY_DEAD	Link Manager was already dead

Code	Symbolic constant	Description
27	MME_NOT_PARENT	Did not spawn LMP via m_StartLink
28	MMW_DEAD_CHILD	Caller had dead child besides LMP
29	MME_LH_DEFUNCT	LMP took too long to die
30	MME_LH_NOT_SYNCH	LH not synch with MM cmmd failed
31	MMS_LH_NOT_SYNCH	LH not synch with MM cmmd succeeded
32	MMS_LH_IN_SYNCH	LH is synchronized with MM
33	MME_LH_SICK	LH returned an unexpected value
34	MME_MON_RESTRICTED	API is restricted from monitor
35	MME_NO_CONFIG	No LH configuration file found
99	MME_NOT_SUPPORTED	Operation not currently supported
102	MME_BAD_PSWD	Invalid Password
103	MME_NO_TASK	No MM ACCESS Toolkit available
104	MME_FULL_SERVER	No free blocks, server is full
105	MME_FULL_CABINET	No free disk space in User Cabinet
106	MME_DO_LOGON	Must be logged on to use this cmd
109	MME_ACCESS_DENIED	Access to account denied
111	MME_COMMAND_FAILED	Command Failed, check SEER console
115	MME_ALREADY_ACQUIRED	Already Acquired
117	MME_MAX_LOGONS	Too many failed m_Logon attempts
120	MME_INVALID_FUNCTION	API function not supported
122	MME_NO_MEMORY	Out of memory
126	MME_BAD_ID	Bad userid or mailbox number
128	MME_BAD_FLAG	Invalid flag (0 or 1 are valid)
129	MMW_DUP_LOGON	Warning: Logged on elsewhere
131	MME_BAD_VERSION	API library being used not supported by Meridian Mail
133	MME_INVALID_CUST	Invalid Customer number specified
134	MME_ALREADY_LOGON	Command not valid while logged in
135	MME_ENS_EXISTS	An application has already acquired ENS

Code	Symbolic constant	Description
136	MME_NOT_ENS	Must be an ENS app to use this command
150	MME_OPTION_NOT_AVAIL	Option not available to customer
151	MME_MAX_REQUESTS	Max. # of acquire requests reached
152	MMW_ALREADY_RELEASED	Session already released by system
200	MME_NO_ACTV_CHNL	No active voice channel
203	MME_BAD_POSITION	Invalid voice start position
204	MME_BAD_TO_POS	Invalid play position
205	MME_BAD_RECORD_POS	Invalid recording position
208	MME_BAD_DIRECTION	Invalid direction (parameter)
211	MME_CHAN_IN_USE	Voice channel already in use
212	MME_NO_ACQUIRED_CHNL	No voice channel has been acquired
213	MME_NO_INC_CALL	No incoming call to answer
214	MME_DO_ADDONCALL	Must call m_AddOnCall first
215	MME_CHANNEL_READY m_Accept	Call (already) issued
217	MME_OTHER_TELEPHONY	Other telephony command in progress
223	MME_PLAYING	Play command already in progress
224	MME_BAD_SEQUENCE	Invalid command sequence
225	MME_RECORDING	Record command already in progress
227	MME_VOICE_FAILURE	Voice operation failure
228	MMS_NO_VOICE	No voice in segment to play
229	MMS_AT_EOS	At end of voice segment
231	MME_SILENCE_TIMEOUT	Ended because too much silence
232	MME_RECORD_LIMIT	Recording limit reached
233	MME_BAD_NUM_SEGS	Bad number of segments specified
235	MME_SEG_Q_FULL	Segment play queue is full
236	MME_INVALID_DTMF	Invalid DTMF string
237	MME_BAD_DETECTION	Context must be SOUND/SILENCE
238	MME_BAD_DURATION	Duration must be <= 5 mins.

Code	Symbolic constant	Description
239	MME_NO_PREV_DETECT	No Previous Detect in progress
240	MME_DETECT_INPROG	Sound Detect already in progress
250	MME_INSTL_EVENT	Must install event handler first
309	MME_NO_ENTRY_FOUND	No such entry found in directory
400	MME_CABINET	Unable to access user’s cabinet
401	MME_INVALID_HANDLE	Invalid file handle passed to command
402	MME_BAD_HANDLE	Unassigned file handle
403	MME_BAD_COMMIT	Invalid commit flag (parameter)
405	MMS_AT_BOF	Reached the beginning of file
406	MME_READ_MODE	Cannot open Read file in Write mode
407	MMS_AT_EOF	Reached the end of file
409	MME_FILE_OPEN	File is already open
410	MMW_COMMIT_IGNORED	Read-only file: Not committed
411	MME_READ_ONLY	Cannot do command on Read-only file
415	MME_FNAME_FORMAT	Invalid filename format
416	MME_MAX_OPEN	Maximum open file limit reached
419	MME_DO_FILEPAT	Must call m_FilePattern first
420	MME_FILE_DNE	File does not exist
425	MME_BAD_NEW_FLAG	Invalid new flag passed
426	MME_BAD_MODE	Invalid file access mode used
431	MME_BAD_IMMED	Invalid delete parameter
432	MME_BAD_COMMAND	Command invalid on this file type
433	MME_BAD_SEG_ID	Segment ID not found in file
434	MME_TITLE_LENGTH	Invalid length in field
436	MME_DO_SEGPAT	Must call m_SegPattern first
437	MME_SCRIPT_LENGTH	Invalid script length
438	MME_SCRIPT_RETV	Issue retrieve script cmd first
439	MME_NO_SEGS	No voice segments in the file

Code	Symbolic constant	Description
441	MME_MAX_SEG_FILES	Too many open seg. files for play
442	MME_MAX_SCRIPT_SIZE	Script for voice segment too long
444	MME_MAX_SEGS	Reached max # segs allowed in file
445	MME_BAD_SEG_TYPE	Bad voice segment file type
446	MME_BAD_LANGUAGE	Invalid language specified
448	MME_BAD_EDIT_POS	Invalid segment editing position
449	MME_BAD_OPERATOR	Invalid segment editing operator
450	MME_BAD_AMOUNT	Invalid amount specified
500	MME_FILE_NOT_MSG	File is not a message file
508	MME_BAD_RCVR	Invalid receiver in address list
509	MME_MAX_RCVRS	Exceeded max. # of msg recipients
511	MME_BAD_SUBJECT	Invalid subject string
512	MME_EMPTY_MSG	Cannot send an empty message
513	MME_NOT_RECEIVED	CallSendr/Reply only on recvd msgs
515	MME_DO_ADDRPAT	Must call m_AddrPattern first
519	MME_EXTERNAL	Cannot reply to external messages
520	MME_FORWARD_PRIVATE	Cannot forward a private message
522	MME_NEED_RCVR	Need 1 or more receivers to send
523	MME_MULTIMATCH	Multiple names matched, specify
524	MME_INCOMING	Cannot be used on this message type
525	MME_MAX_DELAY	Delay delivery time too long
526	MME_REMOTE	Remote site not recognized
527	MME_SYS_MSG	Operations invalid on system msgs
528	MME_BROADCAST	Cannot ReplyAll to Broadcast msg
529	MME_AMIS_REPLY	Cannot reply all on AMIS message
600	MME_PDL_DNE	List number not found
601	MME_BAD_PDL_NUM	Invalid PDL list number
602	MME_MAX_PDL_ENTRIES	Exceeded number of entries in PDL

Code	Symbolic constant	Description
603	MME_USER_PROFILE	Unable to access user profile
622	MME_RESTRICTED	Restricted to admin access only
623	MME_BAD_BOX	Invalid box number
625	MME_BAD_SURNAME	Invalid last name
626	MME_BAD_GIVEN	Invalid first name
627	MME_BAD_LIST	Invalid list number
628	MME_PSWD_TOO_SHORT	Password too short
629	MME_BAD_GREET	Invalid personal greeting type
630	MME_DUP_OLD	Old password and logged on elsewhere
631	MME_PSWD_OLD (for m_Logon)	User's password has expired (for m_UserPassword) Old passwords cannot be reused
632	MME_OPEN_PERS_VERIF	Personal Verification already open
633	MME_OPEN_GREETING	Greeting already open
634	MME_NOT_NUMERIC	Non-numeric in numeric field
636	MME_NO_MATCHING_BOX	No matching box address in PDL
637	MME_DO_PDLPAT	Must call m_PDLPattern first
638	MME_NOT_PDL	Not a PDL file
639	MME_BAD_MSG_TYPE	Invalid external message type
700	MME_API_NOT_INIT	Set HiLev flag before invoking API
701	MME_BAD_EXIT_DIGIT	Invalid digit in ExitDigits
702	MME_INTER_KEY_TO	Inter Digit Timeout occurred
703	MME_KEY_OVERFLOW	Key buffer overflow occurred
704	MME_API_INTERRUPTED	API interrupted by MM event
705	MME_BAD_ITEMTOPLAY	ItemToPlay in invalid format
706	MME_BAD_PLAYTYPE	Invalid PlayType specified
707	MME_PLAY_TIMEOUT	PlayEnd event not received
806	MME_BAD_DN	Invalid Directory Number passed
808	MME_BAD_ANSWER	Invalid answer flag
811	MME_RESTRICTED_DN	DN has a restricted prefix

Code	Symbolic constant	Description
900	MME_LH_TABLE_FULL	LH Register Table full
910	MME_TRANS_TABLE_FULL	LH Trans Table full
1000	MME_ECHO_FAIL	Echo test failed: corrupted string
1005	MME_AUTOEVENTON m_Event	Check with autoeventon

Appendix B

Meridian Mail AutoAdmin PC Errors

Introduction

The Meridian Mail AutoAdmin software provides users with the ability to add, replace, update, and delete mailboxes from a PC. In order to assist users and Nortel Networks support personnel in identifying the cause of a problem, the following classes of error codes are presented:

Classes	Description
messages	Presented by the Meridian Mail AutoAdmin GUI when an event/request is initiated, completed, or when an problem occurs.
201	Presented by the AutoAdmin Application Programming Interface (API) layer which validates and sends input requests to PC-MR for packaging.
202	Presented by the PC-MR (PC Message Router) which packages and routes input requests to PC-TC for sending to Meridian Mail.
203	Presented by the PC Datafile which help validate input request.
204	Presented by the PC-TC (PC Toolkit Communciations) which helps send messages to Meridian Mail.

AutoAdmin Utilities Error Messages

Presented by the Meridian Mail AutoAdmin GUI when an event/request is initiated, completed, or when an problem occurs.

Reports

Error: More data items than tag items.

Cause: Invalid tag specification. Less tags specified than columns in user data file.

Impact: Non action will be performed by Meridian Mail.

Error: More tag items than data.

Cause: Invalid tag specification. More tags specified than columns in user data file.

Impact: Non action will be performed by Meridian Mail.

Error: End of file.

Cause: Unexpected read beyond end of user data file.

Impact: None.

Error: Could not open file.

Cause: Invalid file name or file not found.

Impact: None.

Error: Request failed due to memory allocation problems.

Cause: Memory allocation problems.

Impact: Requests cannot be submitted.

Error: Could not perform request.

Cause: Internal error.

Impact: Request will be ignored.

Error: Request denied due to unknown error.

Cause: Internal error.

Impact: Request will be ignored.

Error: Unreadable site ID.

Cause: An error has occurred in the Registry.

Impact: Session will not be established.

Error: Invalid options specification, cannot open data file.

Cause: User entered invalid data on the options sheet (example: the skip to line value exceeds the last valid line in the data file).

Impact: None.

Error: Error occurred while setting up for DR audit.

Cause: Could not allocate resources.

Impact: None.

Error: Error occurred while requesting DR audit.

Cause: Meridian Mail failed to perform the DR audit.

Impact: None.

Error: Error occurred while polling DR audit.

Cause: Meridian Mail failed to perform the DR audit.

Impact: None.

Error: Unknown command.

Cause: Could interpret user command request.

Impact: None.

Error: Request failed.

Cause: User request failed as a result on an unknown error.

Impact: Request will not be serviced.

Error: Failed to initiate session.

Cause: The session could not be initiated as a result of a link connection error, mismatch baud rates, invalid site ID, or invalid password.

Impact: Utility will not perform bulk requests.

Error: Invalid state.

Cause: Utility is operating in an invalid mode.

Impact: Utility is unstable and unexpected conditions may result.

Error: Request denied. Required data could not be retrieved.

Cause: Utility could not retrieve required user input.

Impact: Utility will not perform bulk requests.

Error: Invalid tag specification.

Cause: Utility could not read user tag selection.

Impact: The request being passed will fail.

Error: Invalid data specification.

Cause: Utility could not read user data selection.

Impact: The request being passed will fail.

Error: Invalid tag and/or data specification.

Cause: Utility could not read tag on data specifications.

Impact: The request being passed will fail.

Error: Could not read site ID.

Cause: Utility could not read registry entries.

Impact: User cannot select site to administer. Utility will not run.

Error: Invalid tag specification.

Cause: The user has incorrectly specified tags.

Impact: The user must correct the tag specification. The utility will not run bulk requests.

Error: Internal error.

Cause: Unknown error encountered.

Impact: Utility may be unstable and unexpected results may occur.

Error: Session terminated with an error.

Cause: Failed to end the session with Meridian Mail.

Impact: None.

Error: Data file failure.

Cause: Could not load internal structures.

Impact: No tag selection will be available. Utility will not run.

Message: DR audit successfully completed.

Cause: Audit is finished.

Impact: None.

Message: Polling for DR audit status is ...

Cause: Utility has polled Meridian Mail for the completion of the DR audit.

Impact: None.

Message: Running auto DR audit, please wait.

Cause: DR audit has been started by utility.

Impact: Processing requests is diferred until audit is complete.

Message: Request succeeded.

Cause: Meridian Mail has succesfully performed the request.

Impact: Ignore.

Message: Session established.

Cause: Meridian Mail has accepted the session request.

Impact: Ignore.

Message: Session Terminated.

Cause: Meridian Mail has terminated the session.

Impact: Ignore.

Message: Session requested.

Cause: User has requested a session with Meridian Mail.

Impact: Ignore.

Message: Abort processing.

Cause: User request failed, either as a result of an internal error or exceeded threshold.

Impact: Session will be terminated.

Message: Execution paused.

Cause: User clicked the Pause button.

Impact: None.

Message: Execution resumed.

Cause: User click the Resumed button.

Impact: None.

Class 201 AutoAdmin API

Presented by the AutoAdmin Application Programming Interface (API) layer which validates and sends input requests to PC-MR for packaging.

Reports

20100 Could Not Allocate Memory Action 1

Cause: No memory available to perform operations.

Impact: Restart application. If problem persists, restart system.

20101 Inalid Transaction State Action 2

Cause: Logic error.

Impact: Resubmit transaction or request.

20102 Init Failure Action 3

Cause: AutoAdmin initialization failure.

Impact: Application will not start.

20103 Invalid Session ID Action 4

Cause: Invalid Session ID.

Impact: Establish a new session.

20104 Invalid Transaction ID Action 5

Cause: Call for another transaction ID (MM_newData), or invalid user request from API.

Impact: Internal API error, application will not start.

20105 Wait Failed Action 5

Cause: Wait failed.

Impact: Internal API error, application will not start.

20106 Could Not Set Event Action 5

Cause: Could not set event.

Impact: Internal API error, application will not start.

20107 Could Not Reset Event Action 5

Cause: Could not reset event.

Impact: Internal API error, application will not start.

20108 Null Memory Deallocation. Action 5

Cause: Null memory deallocation.

Impact: Internal API error, application will not start.

20111 Empty Data Structure No Action

Cause: User tried to read from an empty transaction.

Impact: No transaction data defined by user.

20112 Read To End Of Data No Action

Cause: User called a read API after it returned “more=false”.

Impact: None.

20113 Null Element Reference No Action

Cause: User called an API that has referenced invalid memory.

Impact: Transaction data cannot be retrieved.

20115 Duplicate Tag Specified No Action

Cause: User tried to define a second occurrence of a tag in the same transaction.

Impact: Tag will not be added.

20116 No Matching Tag Found No Action

Cause: User tried to read a non-existent tag from a transaction.

Impact: None.

20117 Transaction Not Removed No Action

Cause: Could not free memory associated with a transaction.

Impact: Memory associated with the transaction will not be freed.

20119 Transaction Timed Out Action 6

Cause: Meridian Mail took too long to reply to request.

Impact: Operation may not have performed.

20120 Delete Transaction Failed Action 7

Cause: User attempted to delete a transaction while it was being serviced.

Impact: None

20121 Transaction Read Failed Action 7

Cause: User attempted to read a transaction while it was being serviced.

Impact: None

20122 Failed To Clear Memory No Action

Cause: Failed to clear MAPER memory, resources could not be released.

Impact: Loss of system memory.

20124 Invalid Session ID Action 8

Cause: User specified an unknown session ID.

Impact: User action will not be performed.

20125 Exceeded Maximum Sessions Action 9

Cause: Exceeded maximum number of active sessions.

Impact: New sessions will not be established.

20126 Session Not Active Actions 5, 8

Cause: Session ID does not refer to an active session.

Impact: User must specify the correct session ID. If it has been lost, restart the system.

20127 Invalid Parameter Length No Action

Cause: User has entered too small of a buffer size for a parameter in an API.

Impact: API call will fail.

20128 Invalid Input Parameter No Action

Cause: Pointers to user specified buffers are invalid.

Impact: API call will fail.

Actions

Action 1 Restart application. If problem persists, restart system.

Action 2 Resubmit transaction or request.

Action 3 Make sure required files exist.

Action 4 Either call MM_InitSession or exit and restart system.

Action 5 End session and re-establish. If problem persists, call your Nortel Networks support oganization.

Action 6 Rebuild and submit transaction.

Action 7 Do not free transaction while it is being serviced.

Action 8 Use correct ID.

Action 9 Restart application to free up additional sessions.

Class 202 PC-MR

Presented by the PC-MR (PC Message Router) which packages and routes input requests to PC-TC for sending to Meridian Mail.

Reports

20200 No Transaction Server Action 1

Cause: Could not allocate system resources.

Impact: Application will stop functioning.

20201 No Transaction Action 1

Cause: Internally lost track of transaction request.

Impact: User request will be ignored.

20202 Transaction Server Busy Action 2

Cause: A transaction is already being processed.

Impact: Transaction will not be processed until the current transaction is completed.

20203 Parsing Error Action 3

Cause: Cannot parse the Meridian Mail acknowledgement.

Impact: Request could not be verified as being completed.

20205 Packet Buffer Full Action 4

Cause: Packet buffer is full or unexpected packet size.

Impact: Transaction cannot be serviced.

Actions

Action 1 Restart application.

Action 2 Wait until preivous request is completed.

Action 3 Resubmit request or ignore.

Action 4 Move to next transaction.

Class 203 PC Datafile and API

Presented by the PC Datafile which help validate input request.

Reports

20301 Major Error Action 1

Cause Invalid record type specified.

Impact The Meridian Mail AutoAdmin utility will not function correctly.

20302 Major Error Action 2

Cause No field with the specified tag in the specified record.

Impact The Meridian Mail AutoAdmin utility will not function correctly.

20303 Critical Error Action 3

Cause Invalid version.

Impact The Meridian Mail AutoAdmin utility will not run. There is a problem with the AutoAdmin datafile.

20304 Major Error Action 1

Cause Specified action is not supported by the specified record.

Impact The Meridian Mail AutoAdmin utility will not function correctly.

20305 Major Error Action 1

Cause Invalid value for the specified field.

Impact The Meridian Mail AutoAdmin utility will not function correctly.

20306 Major Error Action 4

Cause Invalid length for the specified field.

Impact The Meridian Mail AutoAdmin utility will not function correctly.

20307 Critical Error Action 5

Cause Datafile corrupted.

Impact The Meridian Mail AutoAdmin utility will not run. There is a problem with the AutoAdmin datafile.

20308 Critical Error Action 6

Cause Datafile not found.

Impact The Meridian Mail AutoAdmin utility will not run. There is a problem with the AutoAdmin datafile.

20309 Critical Error Action 5

Cause Datafile not loaded.

Impact The Meridian Mail AutoAdmin utility will not run. There is a problem with the AutoAdmin datafile.

20310 Major Error Action 2

Cause Invalid field type.

Impact The Meridian Mail AutoAdmin utility will not function correctly.

Actions

Action 1 Delete the transaction and create a new one.

Action 2 Check all the tags to ensure that they are valid. Change the invalid tags and try again.

Action 3 Check the version of the PC software for compatibility with the version of the Meridian Mail software.

Action 4 Check the values to ensure that they are valid. Change the invalid values and try again.

Action 5 Replace the CMADF.TEXT file in the PC with a new one.

Action 6 Check for the existence of the MCADF.TEXT file in the PC. Place a copy of the file in the PC software directory if it is missing.

Class 204 PC-TC

Presented by the PC-TC (PC Toolkit Communciations) which helps send messages to Meridian Mail.

Reports

20400 Critical Error Case 1 Action 1
Case 2 Action 2
Case 3 Action 3

Cause 1. There is not enough memory to load the PCTC.DLL.
2. Cannot read registry information on port and/or modem settings.
3. PCTC.DLL is corrupt.

Impact No request can be processed.

20401 Critical Error Action 1

Cause There is not enough memory to allocate for the PCTC.DLL.

Impact DLL cannot be loaded and no request will be sent to Meridian Mail.

20402 Major Error Action 4

Cause Request has an invalid transaction id.

Impact Request will not be processed.

20403 Major Error Action 4

Cause An invalid command is issued for the request.

Impact Request will not be processed.

20404 Major Error Action 4

Cause Request contains an invalid site id.

Impact Request will not be processed.

20405 Major Error Action 4

Cause Request does not contain any data.

Impact Request will not be processed.

20406 Major Error Action 4

Cause Length of request is either 0 or greater than 1024 bytes.

Impact Request will not be processed.

20407 Major Error Action 4

Cause Request contains an invalid event id.

Impact Request will not be processed.

20408 Major Error Action 4

Cause The reply contains a different transaction id from the original request.

Impact Cannot return result of the request.

20409 Major Error Action 4

Cause There is no request in progress.

Impact No request result is returned.

20410 Major Error Action 4

Cause A session is not yet established for the request.

Impact Request will not be processed.

20411 Major Error Action 2

Cause Cannot read registry information.

Impact A session cannot be established and all subsequent requests will not be processed.

20412 Major Error Action 4

Cause Session is being initiated.

Impact Request will not be processed while the session is being initiated.

20413 Major Error Action 4

Cause Cannot initiate a session.

Impact A session cannot be established and all subsequent requests will not be processed.

20414 Major Error Action 4

Cause A session is already active. Cannot initiate more than one session.

Impact The initiate session request will fail.

20415 Critical Error Action 5

Cause Cannot establish a connection between PC and Meridian Mail.

Impact A session cannot be established and all subsequent requests will not be processed.

20416 Minor Error Action 6

Cause Session is being terminated.

Impact Request will not be processed while the session is being terminated.

20417 Minor Error Action 6

Cause End session request encounters an error.

Impact Session will not be terminated successfully although the COM port on the PC will still be closed. All subsequent requests will not be processed.

20418 Minor Error Action 6

Cause Cannot drop the connection between PC and Meridian Mail. Meridian Mail is not responding to the drop link command.

Impact End session request will fail although the COM port on the PC will still be closed. All subsequent requests will not be processed.

20419 Major Error Action 4

Cause MSLink is down.

Impact Request will not be processed.

20420 Major Error Action 4

Cause A request is currently in progress.

Impact Only one request can be processed at any one time.

20423 Major Error Action 7

Cause Timeout in sending request to Meridian Mail.

Impact Request will not be processed.

20424 Major Error Action 7

Cause Timeout in receiving reply from Meridian Mail.

Impact Request might have been processed successfully in Meridian Mail but no result is returned.

20426 Major Error Action 4

Cause Cannot send this request to Meridian Mail.

Impact Request will not be processed.

20429 Major Error Action 4

Cause A message with an invalid toolkit id is received from Meridian Mail.

Impact Request will not be processed.

20432 Major Error Action 4

Cause A wrong reply message is received for the current request.

Impact Request might have been processed successfully in Meridian Mail but no result is returned.

20440 System Info No Action

Cause Link info: Dialing modem.

Impact N/A.

20441 System Info No Action

Cause Link info: Modem is connected.

Impact N/A.

20442 System Info No Action

Cause Link info: Initiating link.

Impact N/A.

20445 System Info No Action

Cause Link info: Shutting down MSLink.

Impact N/A.

20446 Minor Error Action 6

Cause Link error: Timeout in shutting down MSLink.

Impact End session request will fail although the COM port on the PC will still be closed. All subsequent requests will not be processed.

20457 Major Error Action 8

Cause Link error: Retry limit exceeded on sending signal to Meridian Mail.

Impact Request will not be processed.

20458 Major Error Action 7

Cause Link error: Cannot send a character out on the COM port because the link is down.

Impact Request will not be processed.

20459 Major Error Action 9

Cause Link error: Incompatible TC version in Meridian Mail .

Impact Request will not be processed.

20460 Major Error Action 8

Cause Link error: Lost synchronization with Meridian Mail.

Impact Request will not be processed.

20461 Minor Error Action 6

Cause Link error: Meridian Mail does not respond to the terminate link request.

Impact End session request will fail although the COM port on the PC will still be closed. All subsequent requests will not be processed.

20462 Major Error Action 8

Cause Link error: Internal system error.

Impact Request will not be processed.

20463 System Info No action

Cause Link info: PC is in sync with Meridian Mail.

Impact N/A

20464 System Info No action

Cause Link info: COM port error has cleared.

Impact N/A

20465 Major Error Action 8

Cause Link error: Unknown signal.

Impact Request will not be processed.

20467 Minor Error Action 7

Cause Link error: Cannot connect with Meridian Mail.

Impact Request will not be processed.

20470 Major Error Action 8

Cause Link error: Received signal error on MSLink.

Impact Request will not be processed.

20471 Major Error Action 7

Cause Link error: Connection is lost. Meridian Mail might have been rebooted or the cable is disconnected.

Impact Request will not be processed. All subsequent requests will not be processed.

20480 Major Error Action 10

Cause COM I/O error: General I/O error. Usually caused by other application locking the specified I/O port.

Impact Session cannot be established. All subsequent requests will not be processed.

20481 Major Error Action 2

Cause COM I/O error: PC does not have the specified device, i.e. COM port.

Impact Session cannot be established. All subsequent requests will not be processed.

20482 Major Error Action 10

Cause COM I/O error: Device specified is currently in use by another PC application.

Impact Session cannot be established. All subsequent requests will not be processed.

20483 Major Error Action 2

Cause COM I/O error: Cannot initialize COM port for communication.

Impact Session cannot be established. All subsequent requests will not be processed.

20484 Major Error Action 11

Cause COM I/O error: Cannot write a character to the COM port because the port buffer is full.

Impact Session cannot be established. All subsequent requests will not be processed.

20485 Major Error Action 12

Cause Modem error: Cannot initialize the modem. Possibly invalid modem initialization string.

Impact Session cannot be established. All subsequent requests will not be processed.

20486 Major Error Action 13

Cause Modem error: Timeout connecting to the remote modem.

Impact Session cannot be established. All subsequent requests will not be processed.

20487 Major Error Action 13

Cause Modem error: Unknown modem response. Cannot send any data to the modem.

Impact Session cannot be established. All subsequent requests will not be processed.

20488 Major Error Action 13

Cause Modem error: Failed to connect with remote modem.

Impact Session cannot be established. All subsequent requests will not be processed.

20489 Minor Error Action 13

Cause Modem error: Failed to disconnect with remote modem.

Impact End session request will fail although the COM port on the PC will still be closed. All subsequent requests will not be processed.

Actions

Action 1 Terminate the AutoAdmin application. Close any Windows applications that are currently running. Restart AutoAdmin.

Action 2 Terminate the AutoAdmin application. Start AutoAdmin Configurator and make sure that all settings are correct. If not, modify the settings and close off the Configurator. Restart AutoAdmin.

If problem persists, the application may be corrupted. Reinstall AutoAdmin and retry.

Action 3 Terminate the AutoAdmin application. Reinstall AutoAdmin from installation disk.

Action 4 Reselect all commands and then resend requests. If problem persists, terminate and restart the AutoAdmin application.

If problem persists, the application maybe corrupted. Then reinstall AutoAdmin and retry.

Action 5 Check to see if the cable is securely connected between the PC COM port and the Meridian Mail dataport. A null modem might be required on a direct serial connection. Reselect all commands and then resend requests. If problem persists, terminate and restart the AutoAdmin application.

If problem persists, reboot PC and restart the AutoAdmin application.

If problem persists, the application maybe corrupted. Reinstall AutoAdmin and retry.

Action 6 Even though the end session request fails, the link is already disbaled. No further action is required to complete the current process. However, you should still check to see if the cable is securely connected between the PC COM port and the Meridian Mail dataport.

Action 7 Check to see if the cable is securely connected between the PC COM port and the Meridian Mail dataport. A null modem might be required on a direct serial connection. Reselect all commands and then resend requests.

If problem persists, terminate and restart the AutoAdmin application.

If problem persists, reboot PC and restart the AutoAdmin application.

If problem persists, the Meridian Mail may be heavily loaded or running a DR audit, VS audit or MWI audit. Wait till a quieter time and re-run the requests.

If problem persists and it is a modem connection, the remote connection maybe too noisy. Try the requests on another phone line.

If problem persists and it is a serial connection, the cable may be bad. Try using another cable.

Action 8 Another PC application is using up too much CPU time, causing PCTC to timeout and the request to fail. Try to avoid running other PC applications while the AutoAdmin is in progress. Reselect all commands and then resend requests.

If problem persists, terminate and restart the AutoAdmin application. Then repeat step 2.

Action 9 Meridian Mail is running a unsupported version of TC. Make sure that Meridian Mail is running MM12 software with the AutoAdmin feature installed. Once the Meridian Mail problem is fixed, restart AutoAdmin.

Action 10 Terminate the AutoAdmin application. Close any Windows applications that are currently using the specified I/O port. Restart AutoAdmin.

If problem persists, the I/O port might not have been closed properly by other applications. Reboot PC and restart the AutoAdmin application.

Action 11 Terminate and restart the AutoAdmin application.

If problem persists, the I/O port might not have been closed properly by other applications. Reboot PC and restart the AutoAdmin application.

Action 12 Terminate the AutoAdmin application. Start AutoAdmin Configurator and make sure that all modem settings are correct. If not, modify the settings and close off the Configurator. Also check the cable connection between PC and the modem. Restart AutoAdmin.

If problem persists, reboot the PC and try again.

If problem persists, the application may be corrupted. Reinstall AutoAdmin and retry.

Action 13 Terminate the AutoAdmin application. Check to see if the problem is one of the following:

- the line was busy.
- the remote modem failed to go off-hook.
- the remote modem disconnected.
- the modem was not connected to the phone line
- a modem error.

Start AutoAdmin Configurator and make sure that all modem settings are correct. If not, modify the settings and close off the Configurator. Also. check to see if the local and remote modems were programmed properly. For example, the local modem (i.e. the modem that is connected to the Meridian Mail) should have been programmed to go into answer mode. Also check the cable connection between PC and the modem. Correct the problem and restart AutoAdmin.

Reader Response Form

Meridian Mail 13
Maintenance Messages (SEERs) Reference Guide
NTP 555-7001-510

Tell us about yourself:

Name: _____

Company: _____

Address: _____

_____

Occupation: _____ **Phone:** _____

1. What is your level of experience with this product?

   ❑ New User ❑ Intermediate ❑ Experienced ❑ Programmer

2. How do you use this book?

   ❑ Learning ❑ Procedural ❑ Reference ❑ Problem solving

3. Did this book meet your needs?

   ❑ Yes ❑ No

   If you answered No to this question, please answer the following questions.

4. What chapters, sections, or procedures did you find hard to understand?

   _____

   _____

   _____

5. What information (if any) was missing from this book?

   _____

   _____

   _____

6. How could we improve this book?

   _____

   _____

   _____

Please return your comments by fax to (416) 597-7104, or mail your comments to:

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How the world shares ideas.

Reader Response Form

Reader Response Form

Meridian Mail
Maintenance Messages (SEERs) Reference Guide

Toronto Information Products
Nortel
522 University Avenue, 14th Floor
Toronto, Ontario, Canada M5G 1W7

Publication number: 555-7001-510
Product release: 13
Document release: Standard 1.0
Date: November 1999

Printed in the United States of America

How the world shares ideas.