



Nortel Networks Multiservice Switch 15000,
Media Gateway 15000 and Preside MDM in
Succession Networks

Fault Management Overview

PT-AAL1/UA-AAL1/UA-IP

NN10092-911



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PT-AAL1/UA-AAL1/UA-IP

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About this document

The following topics are discussed in this section:

- “Who should read this document and why” (page 15)
- “What you need to know” (page 16)
- “How this document is organized” (page 16)
- “What’s new in this document” (page 17)
- “Text conventions” (page 20)
- “Related documents” (page 22)
- “How to get more help” (page 23)

Who should read this document and why

This document, NN10092-911 *Nortel Networks Multiservice Switch 15000, Media Gateway 15000 and Preside MDM in Succession Networks Fault Management Overview PT-AAL1/UA-AAL1/UA-IP*, is intended for people who need to understand fault management of Nortel Networks Preside Multiservice Data Manager (MDM) workstations, Nortel Networks Multiservice Switch 15000 nodes, and Nortel Networks Media Gateway 15000 nodes in Succession Network solutions. The Media Gateway 15000 switch is used in UA - IP solutions.

System administrators and network operators who are responsible for network management will need the information provided by this document as well as fault application writers.

What you need to know

Before you read this document, you need to be familiar with the components that make up your network and the Succession solution architecture that links the components together. For an overview, see

- NN10320-111 *ATM Solutions Basics*
- NN10300-111 *IP Solutions Basics*

For more information on how the Nortel Networks Multiservice Switch 15000 nodes, Media Gateway 15000 nodes and the Preside Multiservice Data Manager (MDM) servers fit into the Succession solution architecture, see

- NN10028-111 *Nortel Networks Multiservice Switch 15000, Media Gateway 15000 and Preside MDM in Succession Networks Product and Technology Basics PT-AALI/UA-AALI/UA-IP*

Some familiarity with fault management of Multiservice Switch 15000 and Media Gateway 15000 equipment using Preside MDM servers is also beneficial. For more information, see

- NN10600-500 *Nortel Networks Multiservice Switch 7400/15000/20000 Alarms Reference*
- 241-6001-501 *Preside MDM Alarms Reference Guide*
- 241-6001-011 *Preside MDM Fault Management User Guide*

How this document is organized

The first section of this document, “Fault management overview” (page 25), begins with a high-level overview of the fault management function and description of the flow of fault management data. The second section, “Interpreting SCC2 logs” (page 31), uses a sample SCC2 log entry to demonstrate how to interpret the information contained in these logs. The next section, “Summary of Multiservice Switch 15000 and Media Gateway 15000 alarm logs” (page 37), lists Multiservice Switch 15000 / Media Gateway 15000 (MSS/MG15000) SET/CLEAR and message alarms and matches them with the corresponding SCC2 log alarm entries. The next section, “Summary of Preside MDM alarm logs” (page 79) lists Preside MDM proxy SET/CLEAR alarms and matches them with the corresponding SCC2 log alarm entries. An appendix, “Telcordia NMA information”

(page 87), summarizes the level of compatibility of the Telcordia NMA application with Succession Voice over ATM (VOA) configurations. It also includes specific information related to fault handling on Multiservice Switch 15000 nodes.

Note: Only those MSS/MG15000 SET/CLEAR and message alarms that are applicable to Succession Networks solutions are included in this document.

What's new in this document

The following features were added to this document:

- “Alarm updates for SN07” (page 17)
- “Shelf Management: Recurring Fan Alarm” (page 19)

Alarm updates for SN07

The following sections have been modified to reflect changes to the alarms that can be generated by Multiservice Switch 15000 and Media Gateway 15000 nodes operating in a Succession Network using SN07:

- Alarm summary tables in sections “Summary of Multiservice Switch 15000 and Media Gateway 15000 alarm logs” (page 37) and “Summary of Preside MDM alarm logs” (page 79) have been modified to consolidate the instance range definitions at the start of the table.
- Sections “Identifying Multiservice Switch 15000 / Media Gateway 15000 alarms in SCC2 logs” (page 39) and “Identifying Preside MDM alarms in SCC2 logs” (page 80) were modified to clarify the contents of the Component field.
- Section “Summary of Multiservice Switch 15000 and Media Gateway 15000 alarm logs” (page 37) has been modified to include SN07 alarm updates. The following tables have been updated or added:
 - “MSS/MG15000 index group: 7011” (page 47)
 - “MSS/MG15000 index group: 7021” (page 56)
 - “MSS/MG15000 index group: 7026” (page 57)
 - “MSS/MG15000 index group: 7056” (page 61)
 - “MSS/MG15000 index group: 7021” (page 72)

- “MSS/MG15000 index group: 7026” (page 73)
- “MSS/MG15000 index group: 7056” (page 75)
- “MSS/MG15000 index group: 7060” (page 76)
- “MSS/MG15000 index group: 7071” (page 76)
- “MSS/MG15000 index group: 7080” (page 77)
- Section “Summary of Multiservice Switch 15000 and Media Gateway 15000 alarm logs” (page 37) has been updated to provide minor clarifications to the following tables:
 - “MSS/MG15000 index group: 7041” (page 58)
 - “MSS/MG15000 index group: 7039” (page 73)
- Section “Summary of Multiservice Switch 15000 and Media Gateway 15000 alarm logs” (page 37) has been updated to remove indications that specific alarms apply to a particular Succession solution. The following alarm tables are affected:
 - “MSS/MG15000 index group 7011: Port management system and automatic protection switching alarms” (page 47) and “MSS/MG15000 index group 7011: Port management system and Automatic Protection Switching alarms” (page 70)
 - “MSS/MG15000 index group 7042: Circuit Emulation Service (CES) alarms” (page 59)
 - “MSS/MG15000 index group 7054: Sparing panel subsystem alarms” (page 60)
- Section “Summary of Multiservice Switch 15000 and Media Gateway 15000 alarm logs” (page 37) has been modified to include SN07 alarm updates. The following tables have been updated or added:
 - “MSS/MG15000 index group: 7011” (page 47)
 - “MSS/MG15000 index group: 7021” (page 56)
 - “MSS/MG15000 index group: 7026” (page 57)
 - “MSS/MG15000 index group: 7056” (page 61)
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- “MSS/MG15000 index group: 7026” (page 73)
- “MSS/MG15000 index group: 7056” (page 75)
- “MSS/MG15000 index group: 7060” (page 76)
- “MSS/MG15000 index group: 7071” (page 76)
- “MSS/MG15000 index group: 7080” (page 77)
- Section “Summary of Preside MDM alarm logs” (page 79) has been modified to include SN07 alarm updates. The following tables have been updated or added:
 - “Preside MDM index group: 0999” (page 82)
 - “Preside MDM index group: 3011” (page 84)

Shelf Management: Recurring Fan Alarm

Nortel Networks Multiservice Switch processor control system alarm 7012 0051 has been modified to support recurring fan alarms. The recurring fan alarm feature is provisionable and is turned on by default for Succession networks. When the feature is turned on, recurring fan failure alarms are sent every eight hours until the condition is cleared. After three alarms have been issued, the severity of the alarm is changed from major to critical. This alarm no longer provides warning of a high shelf temperature condition.

A new processor control system alarm code 7012 0059 has been added to provide warning of a high shelf temperature condition.

The existing alarm 7002 0003 has been modified, changing the severity from warning to major and the alarm type from equipment to environmental.

The following sections were modified for this feature:

- “MSS/MG15000 index group 7002: Backplane control system alarms” (page 44)
- “MSS/MG15000 index group 7012: Processor control system alarms” (page 53)

Other changes made to this document include the following:

- The terms Passport 15000 and Packet Voice Gateway (PVG) have been rebranded in conjunction with the new Nortel Networks' brand simplified naming format.

The Passport 15000 is now referred to as the Nortel Networks Multiservice Switch 15000. The Packet Voice Gateway (PVG) is now referred to as Nortel Networks Media Gateway 15000.

The Multiservice Switch 15000 and Media Gateway 15000 network elements continue to share common hardware and software aspects. Hybrid systems can combine these network elements' capabilities, despite the fact that no specific brand exists for such hybrids.

For more information on the product rebranding, refer to NN10600-000 *Nortel Networks Multiservice Switch 7400/15000/20000 What's New in PCR6.1*.

- "Fault management data flow overview" (page 26) and "Sample SCC2 log entry element description" (page 34) have been modified to include reference to higher level management systems and the Integrated Element Management System (IEMS) for UA - IP solutions.
- The following sections include minor updates for references to UA - IP:
 - "Who should read this document and why" (page 15)
 - "What you need to know" (page 16)
 - "Related documents" (page 22)
 - "Summary of Preside MDM alarm logs" (page 79)
 - "Preside MDM SET/CLEAR alarms" (page 81)

Text conventions

This document uses the following text conventions:

- `nonproportional spaced plain type`

Nonproportional spaced plain type represents system generated text or text that appears on your screen.

- **nonproportional spaced bold type**

Nonproportional spaced bold type represents words that you should type or that you should select on the screen.

- *italics*

Statements that appear in italics in a procedure explain the results of a particular step and appear immediately following the step.

Words that appear in italics in text are for naming.

- [optional_parameter]

Words in square brackets represent optional parameters. The command can be entered with or without the words in the square brackets.

- <general_term>

Words in angle brackets represent variables which are to be replaced with specific values.

- UPPERCASE, lowercase

In Nortel Networks Preside Multiservice Data Manager, uppercase and lowercase letters that appear in UNIX commands and parameters must be matched exactly. The system matches upper and lowercase characters differently.

- UPPERCASE, lowercase

Nortel Networks Multiservice Switch / Media Gateway system commands are not case-sensitive and do not have to match commands and parameters exactly as shown in this document, with the exception of string options values (for example, file and directory names) and string attribute values.

- |

This symbol separates items from which you may select one; for example, ON/OFF indicates that you may specify ON or OFF. If you do not make a choice, a default ON is assumed.

- ...

Three dots in a command indicate that the parameter may be repeated more than once in succession.

The term absolute pathname refers to the full specification of a path starting from the root directory. Absolute pathnames always begin with the slash (/) symbol. A relative pathname takes the current directory as its starting point, and starts with any alphanumeric character (other than /).

Related documents

See the following documents for information related to fault management:

- NN10300-111 *IP Solutions Basics*
- NN10320-111 *ATM Solutions Basics*
- NN10028-111 *Nortel Networks Multiservice Switch 15000, Media Gateway 15000 and Preside MDM in Succession Networks Product and Technology Basics PT-AALI/UA-AALI/UA-IP*
- NN10198-912 *Nortel Networks Multiservice Switch 15000, Media Gateway 15000 and Preside MDM in Succession Networks Fault Management Troubleshooting PT-AALI/UA-AALI/UA-IP*
- NN10600-500 *Nortel Networks Multiservice Switch 7400/15000/20000 Alarms Reference*
- NN10600-520 *Nortel Networks Multiservice Switch 7400/15000/20000 Fault and Performance Management: Troubleshooting*
- NN10600-715 *Nortel Networks Multiservice Switch 7400/15000/20000 ATM Fault and Performance Management*
- 241-6001-309 *Preside MDM Management Data Provider User Guide*
- 241-6001-501 *Preside MDM Alarms Reference Guide*

- 241-6001-011 *Preside MDM Fault Management User Guide*

How to get more help

For information on training, problem reporting, and technical support, see the “Nortel Networks support services” section in NN10600-030 *Nortel Networks Multiservice Switch 7400/15000/20000 Overview*.

Chapter 1

Fault management overview

This document, NN10092-911 *Nortel Networks Multiservice Switch 15000, Media Gateway 15000 and Preside MDM in Succession Networks Fault Management Overview PT-AAL1/UA-AAL1/UA-IP*, describes the fault management of Nortel Networks Multiservice Switch 15000 / Media Gateway 15000 (MSS/MG15000) nodes and Preside Multiservice Data Manager (MDM) servers within Succession Network solutions.

The Preside MDM client-set workstation relies on the Preside MDM server-set/standalone workstation for the Network Model layout and state-based data flows. The following state-based surveillance applications are used to detect, diagnose and view network faults:

- Network Viewer
- Component Information Viewer
- Network Status Bar

The Network Viewer is a network component tool that detects faults on a node. It displays state and topology information for the physical and organizational components that make up the network. The Component Information Viewer is used to diagnose network faults. It provides information on the components and subcomponents of a network element. The Network Status Bar provides a high-level view of the current network status.

See 241-6001-011 *Preside MDM Fault Management User Guide* for information on the fault management tools. See 241-6001-015 *Preside MDM Network Model Administrator Guide* for information on the Network Model.

Fault management data, mostly in the form of alarms, provides the information required for network management including network engineering and troubleshooting. Common causes of alarms include the following occurrences:

- discovery of a fault or failure
- crossing of a threshold by a measured activity
- clearing of a fixed fault or failure condition
- generation of a message alarm in cases where conditions are transient or cannot be repaired

Note: Currently, this document is primarily concerned with one type of fault management data, SCC2 alarm logs. In subsequent Succession Network releases, this document will be expanded to include more information.

The system for generating Multiservice Switch / Media Gateway equipment alarms is event-driven. When an event occurs that results in the production of an alarm, Multiservice Switch / Media Gateway alarms are designed to minimize the number of multiple alarms generated in the event of a failure or error condition. Usually, only the component that fails or detects the failure generates an alarm, thus preventing the generation of an entire chain of alarms from components associated with the failed component.

Fault management data flow overview

The process for collecting SCC2 logs begins when Preside MDM software collects alarm and log data from network nodes and Preside MDM servers. This fault management data, which flows over IP connections from the nodes and servers, is in turn, either forwarded to a higher level management system (HLMS) or directly to the Operations Support Systems (OSS) applications. For PT-AAL1 and UA-AAL1 solutions, the higher level management system is the CS2000 Core Manager. For UA - IP solutions, the higher level management system is the Integrated Element Management System (IEMS).

When a higher level management system is involved, the higher level management application receives node and server alarm logs and converts them into the switch control centre 2 (SCC2) format. The application then transmits the logs to the OSS applications. To the OSS applications, an SCC2

log indicates events that have occurred on the nodes and servers. For more information on interpreting SCC2 log information, see “Interpreting SCC2 logs” (page 31)

When the fault management data flows directly from the network nodes and Preside MDM servers to the OSS applications, the records are received in the API format without ever being converted into the SCC2 format.

For an illustration of the two different fault management data flow paths through the Succession Network solution, see the following figures:

- “Fault data flow to the OSS application by way of a higher level management system” (page 28)
- “Fault data flow to the OSS applications by way of Preside MDM” (page 29)

Note: The figures “Fault data flow to the OSS application by way of a higher level management system” (page 28) and “Fault data flow to the OSS applications by way of Preside MDM” (page 29) do not represent the redundant links between the components. For more information about actual connection links and redundancy between links, see NN10114-511 *Nortel Networks Multiservice Switch 15000, Media Gateway 15000 and Preside MDM in Succession Networks Configuration Overview PT-AAL1/UA-AAL1/UA-IP*.

Figure 1
Fault data flow to the OSS application by way of a higher level management system

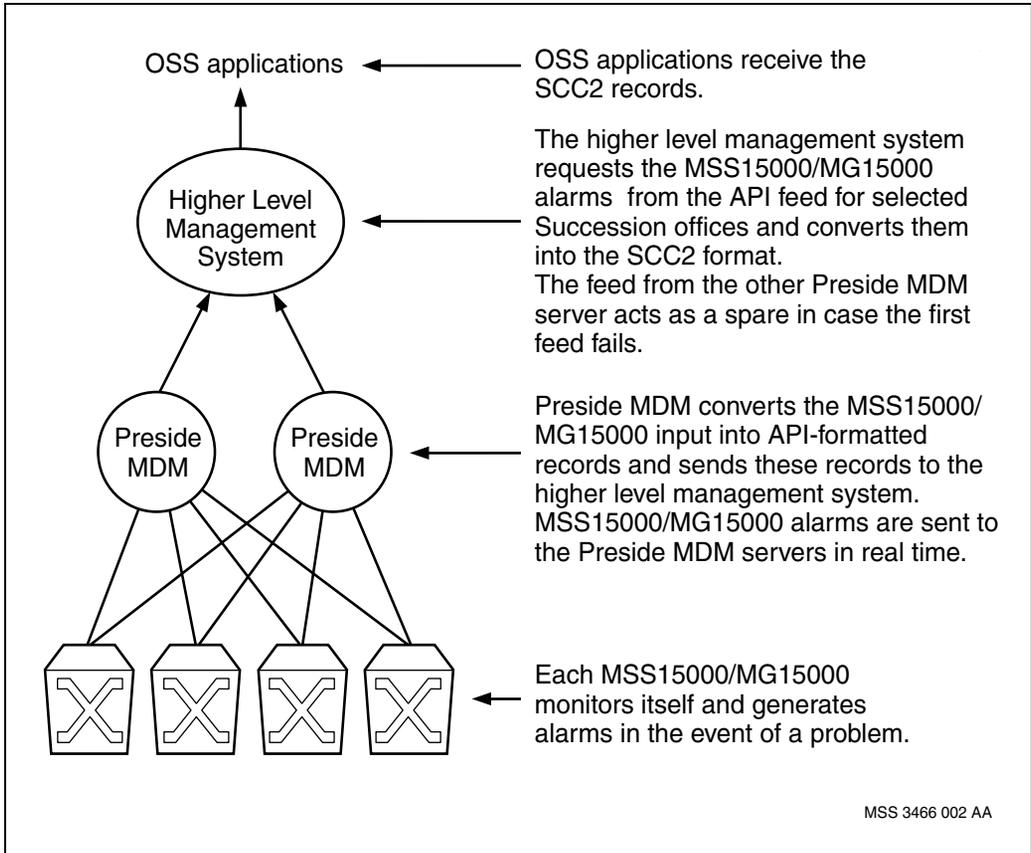
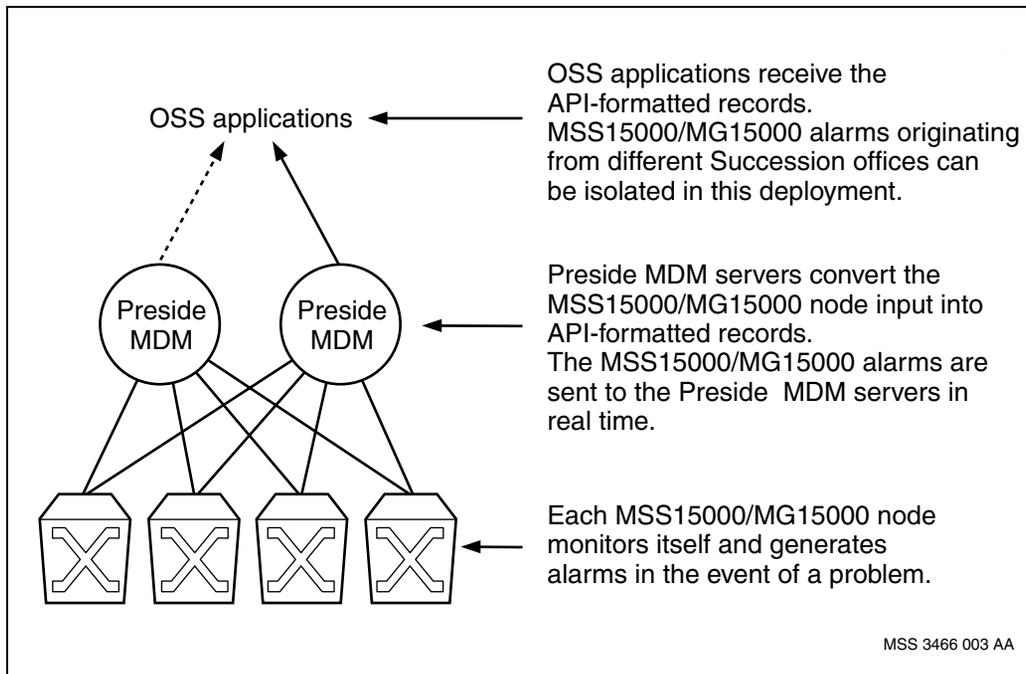


Figure 2
Fault data flow to the OSS applications by way of Preside MDM



Chapter 2

Interpreting SCC2 logs

The various lines and fields within each SCC2 alarm log entry contain alarm data for Nortel Networks Multiservice Switch 15000 / Media Gateway 15000 (MSS/MG15000) nodes and Preside Multiservice Data Manager (MDM) servers. Operators and engineers can use these fields to isolate the fault using the Preside MDM Component Information Viewer.

Sample SCC2 log

The table, “Sample SCC2 log” (page 31), gives an example of an SCC2 log. This sample displays the SCC2 log format.

Table 1
Sample SCC2 log

37 PPEM300 8169 TBL
time: 2003 01 11 15 37 06
event: clear
compld: EM P15KF LP SONET 3
severity: cleared
faultCode: 70115201
alarmType: communications
commentData: Loss of frame condition has been cleared.

A SCC2 log entry consists of the header line and seven lines of body text. The header line is divided into several fields each of which contains a specific piece of information. These fields are explained in the “Labelled header fields in the sample SCC2 log entry” (page 33) and “Sample SCC2 log entry element description” (page 34). The name of each line in the body text of the SCC2 log appears at the beginning of that line. The information in the body text of the SCC2 log also appears in the corresponding node’s alarm. For more information on the corresponding fields in SCC2 log and Multiservice Switch alarms, see “Corresponding SCC2 log and Alarm NTP information” (page 32).

Table 2
Corresponding SCC2 log and Alarm NTP information

Line number	Line name	The corresponding field in NN10600-500 Nortel Networks Multiservice Switch 7400/15000/20000 Alarms Reference
1	header (name does not appear in the line)	N/A
2	time	date & time
3	event	Status
4	compld	Component
5	severity	Severity
6	faultCode	Alarm NTP Index
7	alarmType	Type
8	commentData	Com

Figure 3
Labelled header fields in the sample SCC2 log entry

	37	PPEM	300	81	69	TBL			
a	b	c	d	e	f	g	h	i	j

- a. Alarm severity
- b. Minute indicator
- c. Single space
- d. Log name
- e. Log number
- f. Single space
- g. Global sequence number
- h. Device sequence number
- i. Single space
- j. Event type

PPT 3328 001 AA

Table 3
Sample SCC2 log entry element description

Line number	Field	Description	Applicable log values and formats
1	a.	Alarm severity MSS/MG15000 node/Preside MDM alarm log severity	<p>“*C” = critical alarm “**” = major alarm “* ” = minor, warning, and indeterminate alarms (one blank) “ ” = clear alarm (two blanks)</p> <p>Two-character indicator representing one of the values listed above in quotation marks, left justified, padded with blanks</p>
1	b.	Minute indicator Generated by the higher level management system (HLMS) at the time as the HLMS receives the alarm log from Preside MDM	<p>Ranges from 00 to 59, right justified, padded with zeros</p> <p>Two-character numeric indicator representing the minutes after the hour</p>
1	c.	Single space	“ ” = space (one blank)
1	d.	Log name Name assigned by the higher level management system and is based on the first four digits (Index group) of the eight digit MSS/MG15000 node or Preside MDM alarm identifier	<p>“CA ” for index group 0000 (two blanks) “PPEM” for index groups beginning with 70xx and some fault codes in group 0999 “MDM ” for index groups beginning with 30xx and some fault codes in group 0999 (one blank)</p> <p>Four characters, left justified, padded with blanks</p>
(Sheet 1 of 3)			

Table 3 (Continued)
Sample SCC2 log entry element description

Line number	Field	Description	Applicable log values and formats
1	e.	Log number Note: The Alarm Type 'debug' is translated as an information log rather than as a fault.	"300" = communications "301" = quality of service "302" = processing "303" = equipment "304" = environmental "305" = security "306" = operator "307" = unknown Three-character numeric indicator representing the Multiservice Switch node or Preside MDM alarm type
1	f.	Single space	" " = single space (one blank)
1	g.	Global sequence number Number incremented by the higher level management system upon receipt of every alarm log	Two-character numeric indicator ranging from 00 to 99, right justified, padded with zeroes
1	h.	Device sequence number Generated and incremented by the higher level management system upon receipt of every device-specific alarm log from Preside MDM (originating from MSS/ MG15000 node or Preside MDM server)	Two-characters numeric indicator ranging from 00 to 99, right justified, padded with zeroes
1	i.	Single space	" " = single space (one blank)
1	j.	Event type	"TBL " (one blank) Four characters, left justified, padded with blanks
2	N/A	time	
(Sheet 2 of 3)			

Table 3 (Continued)
Sample SCC2 log entry element description

Line number	Field	Description	Applicable log values and formats
3	N/A	event	One of the following: set, clear, message
4	N/A	compld	The name of the node followed by the component name
5	N/A	severity	
6	N/A	faultCode	
7	N/A	alarmType	
8	N/A	commentData	Comment data is truncated so that the entire log does not exceed 900 bytes
(Sheet 3 of 3)			

Chapter 3

Summary of Multiservice Switch 15000 and Media Gateway 15000 alarm logs

For information about fault management involving Nortel Networks Multiservice Switch 15000 and Nortel Networks Media Gateway 15000 (MSS/MG15000) alarms applicable to Succession Network solutions, see the following sections:

- “Multiservice Switch 15000 / Media Gateway 15000 Alarm logs” (page 37)
- “Identifying Multiservice Switch 15000 / Media Gateway 15000 alarms in SCC2 logs” (page 39)
- “MSS15000 / MG15000 SET/CLEAR alarms” (page 40)
- “MSS15000 / MG15000 Message alarms” (page 64)

Multiservice Switch 15000 / Media Gateway 15000 Alarm logs

This section lists those MSS/MG15000 SET/CLEAR and message alarms that are applicable to Multiservice Switch 15000 and Media Gateway 15000 nodes in Succession Networks. These SET/CLEAR and message alarms are matched with the corresponding record for the same type of alarm in a SCC2 alarm log. SET/CLEAR alarms are those alarms where the *event* line has a value indicating a *set* or *clear* alarm. For more information of the lines in a SCC2 alarm log, see “Interpreting SCC2 logs” (page 31).

Note: The following sections do not include all corresponding CLEAR and SET alarm logs. The SCC2 header for the CLEAR alarm is distinguished from the corresponding SET alarm by the first two characters in the header. For example, the alarm severity field for a SET alarm reads “aa”, while the alarm severity field for the CLEAR alarm replaces the “aa” with two blank spaces. For more information on the SCC2 alarm log header line, see “Sample SCC2 log entry element description” (page 34).

Identifying Multiservice Switch 15000 / Media Gateway 15000 alarms in SCC2 logs

This section tells you how to identify SCC2 alarm log headers and the corresponding network node alarm.

For specific information on each of the node's proxy SET/CLEAR and message alarms that are applicable to Succession Networks, see the following sections:

- “MSS15000 / MG15000 SET/CLEAR alarms” (page 40)
- “MSS15000 / MG15000 Message alarms” (page 64)

Alarm NTP index field

The Multiservice Switch 15000 / Media Gateway 15000 alarm NTP index consists of an eight digit number that uniquely identifies each alarm. The alarm NTP index is composed of two parts

- four initial digits that identify the Index Group to which the alarm belongs
- four subsequent digits that identify the SubIndex number for the alarm

All of the records for Multiservice Switch 15000 / Media Gateway 15000 alarms in this document are grouped on the basis of a common index group number. For example, all the records for backplane control system alarms that are applicable to Succession Networks appear below the heading “Index group: 7002”. The SubIndex number field uniquely identifies each alarm within an index group by giving the second four digit identifying number. For example, 7002 0002, the index group and subindex numbers, indicates a specific Multiservice Switch 15000 backplane control system alarm.

Component field

The Component name field for each Nortel Networks Multiservice Switch 15000 / Media Gateway 15000 alarm is also used to identify the alarm in the SCC2 alarm log. The component name indicates the managed object against which the alarm log is generated. For example, the component name of the 7002 0002 alarm is `Shelf FabricCard/<n>`. The component name is preceded by the node name of the module which typically starts with EM.

SCC2 header field

The SCC2 header field presents the corresponding header from the SCC2 alarm log that matches the specific alarm already identified in the record. For example, the SCC2 header that matches the 7002 0002 alarm is `**bb PPEM303 gghh TBL`.

Comment field

The Comment field includes additional descriptive information about either a specific alarm or a group of alarms.

MSS15000 / MG15000 SET/CLEAR alarms

Nortel Networks Multiservice Switch SET/CLEAR alarms that are applicable to Succession Networks are divided into the following index groups:

- “MSS/MG15000 index group: 0000” (page 42)
- “MSS/MG15000 index group 7000: Provisioning alarms” (page 43)
- “MSS/MG15000 index group 7002: Backplane control system alarms” (page 44)
- “MSS/MG15000 index group 7003: Data collection system alarms” (page 45)
- “MSS/MG15000 index group 7008: File system alarms” (page 45)
- “MSS/MG15000 index group 7011: Port management system and automatic protection switching alarms” (page 47)
- “MSS/MG15000 index group 7012: Processor control system alarms” (page 53)
- “MSS/MG15000 index group 7013: Message block usage alarms” (page 54)
- “MSS/MG15000 index group 7014: Memory management alarms” (page 55)
- “MSS/MG15000 index group 7015: Network time-of-day (TOD) synchronization” (page 55)
- “MSS/MG15000 index group 7017: Network clock synchronization alarms” (page 56)
- “MSS/MG15000 index group 7021: Internet protocol alarms” (page 56)

- “MSS/MG15000 index group 7026: LAN port management system alarms” (page 57)
- “MSS/MG15000 index group 7039: ATM core alarms” (page 57)
- “MSS/MG15000 index group 7041: ATM networking alarms” (page 58)
- “MSS/MG15000 index group 7042: Circuit Emulation Service (CES) alarms” (page 59)
- “MSS/MG15000 index group 7054: Sparing panel subsystem alarms” (page 60)
- “MSS/MG15000 index group 7056: Voice Services Processor (VSP) and Narrowband service trunk over ATM (Nsta) alarms” (page 61)
- “MSS/MG15000 index group 7060: ATM and frame resource control alarms” (page 63)

MSS/MG15000 index group: 0000

The alarms in this index group include OSI administrative state changes, general engineering and memory alarms, and internal software error detected alarms.

Table 4
MSS/MG15000 index group 0000

Alarm NTP Index	Component name	SCC2 header
0000 0000	This alarm can apply to many node components	bb CA eee gghh TBL where: eee = 302, 303, 306
0000 1000	This alarm can apply to many node components	aabb CA eee gghh TBL where: aa = "C", "C", "C" eee = 300, 306
0000 1001	This alarm can apply to many node components	aabb CA 303 gghh TBL where: aa = "C", "C", "C"
0000 3000	This alarm can apply to many node components	aabb CA eee gghh TBL where: aa = "C", "C", "C" eee = 300, 302
0000 3001 0000 3002	These alarms can apply to many node components	aabb CA 302 gghh TBL where: aa = "C", "C", "C"

MSS/MG15000 index group: 7000

The alarms in this index group apply to failures resulting from provisioning attempts. For example, the failure of a provisioning file to load results in an alarm.

Table 5
MSS/MG15000 index group 7000: Provisioning alarms

Alarm NTP Index	Component name	SCC2 header
7000 0007	Prov	aabb PPEM306 gghh TBL where: aa = “*C”, “**”, “* ”
7000 0010	This alarm can apply to many node components	* bb PPEM302 gghh TBL
7000 0033	Prov migration	aabb PPEM306 gghh TBL where: aa = “*C”, “* ”
7000 0036	Prov	aabb PPEM301 gghh TBL where: aa = “**”, “* ”
7000 0037	Prov	*Cbb PPEM301 gghh TBL
7000 0038	Prov	* bb PPEM301 gghh TBL
7000 0040	Prov	**bb PPEM302 gghh TBL
7000 0041	Provisioning Patch	* bb PPEM306 gghh TBL

MSS/MG15000 index group: 7002

The alarms in this index group apply to failures involving the backplane. For example, a communication failure between an FP and the backplane results in an alarm.

Instance ranges for SET/CLEAR index group: 7002

FabricCard instance range (<i>): X or Y

Card instance range (<n>): 0 to 15

Table 6

MSS/MG15000 index group 7002: Backplane control system alarms

Alarm NTP Index	Component name	SCC2 header
7002 0002	Shelf FabricCard/<i>	**bb PPEM303 gghh TBL
7002 0003	Shelf FabricCard/<i>	**bb PPEM304 gghh TBL
7002 0005	Shelf FabricCard/<i>	**bb PPEM302 gghh TBL
7002 0006	Shelf FabricCard/<i>	**bb PPEM302 gghh TBL
7002 0007	Shelf FabricCard/<i>	**bb PPEM302 gghh TBL
7002 0008	Shelf Card/<n>	* bb PPEM303 gghh TBL
7002 0009	Shelf FabricCard/<i>	* bb PPEM303 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7002" (page 44)		

MSS/MG15000 index group: 7003

The alarms in this index group apply to failures of the data collection system. For example, an alarm or log queue size that has exceeded a threshold results in an alarm.

Instance ranges for SET/CLEAR index group: 7003

Collector instance range (<t>): accounting, alarm, log, debug, scn, trap, stats, rtstats, appl

Agent instance range (<n>): 0 to15

Lp instance range (<n>): 0 to15

Table 7

MSS/MG15000 index group 7003: Data collection system alarms

Alarm NTP Index	Component name	SCC2 header
7003 0001	Collector/<t> Agent/<n>	**bb PPEM301 gghh TBL
7003 0002	Collector/<t> Spooler	**bb PPEM302 gghh TBL
7003 0003	Collector/<t> Spooler	* bb PPEM301 gghh TBL
7003 0007	Lp/<n> Eng AAList	**bb PPEM301 gghh TBL
7003 0008	Collector/<t> Spooler	* bb PPEM306 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7003" (page 45)		

MSS/MG15000 index group: 7008

Instance ranges for SET/CLEAR index group: 7008

Disk instance range (<n>): 0 or 1

Table 8

MSS/MG15000 index group 7008: File system alarms

Alarm NTP Index	Component name	SCC2 header
7008 1001	FileSystem	**bb PPEM302 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7008" (page 45)		
(Sheet 1 of 2)		

Table 8 (Continued)
MSS/MG15000 index group 7008: File system alarms

Alarm NTP Index	Component name	SCC2 header
7008 1002	FileSystem	*Cbb PPEM302 gghh TBL
7008 1004	FileSystem	*Cbb PPEM303 gghh TBL
7008 1005	FileSystem	* bb PPEM303 gghh TBL
7008 1006	FileSystem	**bb PPEM302 gghh TBL
7008 1008 7008 1009 7008 1010 7008 1011	FileSystem Disk/<n>	**bb PPEM303 gghh TBL
7008 1019	FileSystem	* bb PPEM303 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7008" (page 45)		
(Sheet 2 of 2)		

MSS/MG15000 index group: 7011

Instance ranges for SET/CLEAR index group: 7011

Lp instance range (<n>): 0 to 15

Port types (<type>): SONET, EDS1, DS3, BridgedSonet (Bso), Ethernet, SDH

SONET instance range (<n2>): 0 to 3 (4-port); 0 to 15 (16-port FP)

EDS1 instance range (<n2>): 0 or 1

IMA instance range (<n3>): 0 to 13

LK instance range (<n4>): 0 to 31

DS3 instance range (<n2>): 0 to 3 (4-port FP); 0 to 11 (12-port FP)

DS1 instance range (<n3>): 1 to 28

Ethernet instance range (<n2>): 0 to 3

LAPS instance range (<n>): 0 to 15999

Chan instance range (<n4>): 0 to 23

BridgedSonet instance range (<n2>): 0 to 15

Pbg instance range (<n>): 0 to 15999

SDH instance range (<n2>): 0 to n, where n is one less than the number of ports on the card

Sts instance range (<n2>): 0 to 11

Vt1dot5 instance ranges (<x>,<y>): <x> is 1 to 7; <y> is 1 to 4

Vc12 instance ranges (<k>,<l>,<m>): <k> is 1 to 3; <l> is 1 to 7; <m> is 1 to 3

Lag instance range (<y>): 0 to 7

Lag Link instance range (<z>): 0 to 31

Table 9

MSS/MG15000 index group 7011: Port management system and automatic protection switching alarms

Alarm NTP Index	Component name	SCC2 header
7011 1100	Lp/<n> DS3/<n2> IMA/<n3>	*Cbb PPEM300 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7011" (page 47)		
(Sheet 1 of 6)		

Table 9 (Continued)
MSS/MG15000 index group 7011: Port management system and automatic protection switching alarms

Alarm NTP Index	Component name	SCC2 header
7011 1200 7011 1210 7011 1211 7011 1212 7011 1213 7011 1214 7011 1215 7011 1216	Lp/<n> DS3/<n2> IMA/<n3> LK/<n4>	*Cbb PPEM300 gghh TBL
7011 1500	Lp/<n> Lag/<y>	*Cbb PPEM300 gghh TBL
7011 1501	Lp/<n> Lag/<y> Link/<z>	*Cbb PPEM300 gghh TBL
7011 2000	Lp/<n> <type>/<n2>	*Cbb PPEM303 gghh TBL
7011 5000	Lp/0 EDS1/<n2> Lp/<n> DS3/<n2> DS1/<n3> Lp/<n> SDH/0 Vc4/0 Vc12/<k>, <l>, <m> E1 Lp/<n> SONET/<n2> Sts/<n2> Vt1dot5/<x>, <y> DS1	*Cbb PPEM300 gghh TBL
7011 5001	Lp/0 EDS1/<n2> Lp/<n> DS3/<n2> DS1/<n3> Lp/<n> SDH/0 Vc4/0 Vc12/<k>, <l>, <m> E1 Lp/<n> SONET/<n2> Sts/<n2> Vt1dot5/<x>, <y> DS1	* bb PPEM300 gghh TBL
7011 5002	Lp/0 EDS1/<n2> Lp/<n> SDH/0 Vc4/0 Vc12/<k>, <l>, <m> E1 Lp/<n> SONET/<n2> Sts/<n2> Vt1dot5/<x>, <y> DS1	*Cbb PPEM300 gghh TBL
7011 5003	Lp/<n> DS3/<n2> DS1/<n3> Lp/<n> SDH/<n2> Vc4/0 Vc12/<k>, <l>, <m> E1 Lp/<n> SONET/<n2> Sts/<n2> Vt1dot5/<x>, <y> DS1	*Cbb PPEM300 gghh TBL
7011 5004	Lp/<n> DS3/<n2> DS1/<n3> Lp/<n> SDH/<n2> Vc4/0 Vc12/<k>, <l>, <m> E1 Lp/<n> SONET/<n2> Sts/<n2> Vt1dot5/<x>, <y> DS1	*Cbb PPEM300 gghh TBL
Note: Refer to “Instance ranges for SET/CLEAR index group: 7011” (page 47)		
(Sheet 2 of 6)		

Table 9 (Continued)
MSS/MG15000 index group 7011: Port management system and automatic protection switching alarms

Alarm NTP Index	Component name	SCC2 header
7011 5005	Lp/<n> DS3/<n2> DS1/<n3> Lp/<n> SDH/<n2> Vc4/0 Vc12/<k>, <l>, <m> E1 Lp/<n> SONET/<n2> Sts/<n2> Vt1dot5/<x>, <y> DS1	*Cbb PPEM300 gghh TBL
7011 5006	Lp/<n> DS3/<n2> DS1/<n3> Lp/<n> SDH/<n2> Vc4/0 Vc12/<k>, <l>, <m> E1 Lp/<n> SONET/<n2> Sts/<n2> Vt1dot5/<x>, <y> DS1	**bb PPEM300 gghh TBL
7011 5010	Lp/<n> DS3/<n2> DS1/<n3> Lp/<n> SDH/0 Vc4/0 Vc12/<k>, <l>, <m> E1 Lp/<n> SONET/<n2> Sts/<n2> Vt1dot5/<x>, <y> DS1	* bb PPEM300 gghh TBL
7011 5011	Lp/<n> DS3/<n2> DS1/<n3>	* bb PPEM300 gghh TBL
7011 5050	Lp/0 EDS1/<n2>	aabb PPEM303 gghh TBL where: aa = “*C”, “* ”
7011 5100 7011 5101 7011 5102 7011 5103 7011 5104	Lp/<n> DS3/<n2>	*Cbb PPEM300 gghh TBL
7011 5105	Lp/<n> DS3/<n2>	* bb PPEM300 gghh TBL
7011 5110	Lp/<n> DS3/<n2>	*Cbb PPEM300 gghh TBL
7011 5111 7011 5120 7011 5121 7011 5122	Lp/<n> DS3/<n2>	* bb PPEM300 gghh TBL
7011 5200 7011 5201 7001 5202	Lp/<n> SONET/<n2> Lp/<n> SDH/<n2>	*Cbb PPEM300 gghh TBL
Note: Refer to “Instance ranges for SET/CLEAR index group: 7011” (page 47)		
(Sheet 3 of 6)		

Table 9 (Continued)
MSS/MG15000 index group 7011: Port management system and automatic protection switching alarms

Alarm NTP Index	Component name	SCC2 header
7011 5203 7011 5204 7011 5210 7011 5211	Lp/<n> SONET/<n2> Lp/<n> SDH/<n2>	* bb PPEM300 gghh TBL
7011 5250 7011 5251	Lp/<n> SONET/<n2> Sts/<n2> Lp/<n> SDH/<n2> Vc4/0 Laps/<n> Sts/<n2> Laps/<n> Vc4/0 Pbg/<n> Sts/0	*Cbb PPEM300 gghh TBL
7011 5252	Lp/<n> SONET/<n2> Sts/<n2> Lp/<n> SDH/<n2> Vc4/0 Laps/<n> Sts/<n2> Laps/<n> Vc4/0 Pbg/<n> Sts/0	* bb PPEM300 gghh TBL
7011 5253	Lp/<n> SONET/<n2> Sts/<n2> Lp/<n> SDH/<n2> Vc4/0 Laps/<n> Sts/<n2> Laps/<n> Vc4/0 Pbg/<n> Sts/0	*Cbb PPEM300 gghh TBL
7011 5254	Lp/<n> SONET/<n2> Sts/0 Lp/<n> SDH/<n2> Vc4/0 Laps/<n> Sts/0 Laps/<n> Vc4/0 Pbg/<n> Sts/0	*Cbb PPEM300 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7011" (page 47)		
(Sheet 4 of 6)		

Table 9 (Continued)
MSS/MG15000 index group 7011: Port management system and automatic protection switching alarms

Alarm NTP Index	Component name	SCC2 header
7011 5255	Lp/<n> SONET/<n2> Path/<n2> Lp/<n> SONET/<n2> Sts/<n2> Lp/<n> SONET/<n2> Vc4/<n2> Lp/<n> SDH/<n2> Path/0 Lp/<n> SDH/<n2> Sts/0 Lp/<n> SDH/<n2> Vc4/0 Laps/<n> Path/0 Laps/<n> Sts/0 Laps/<n> Vc4/0 Pbg/<n> Sts/0	*Cbb PPEM300 gghh TBL
7011 5256	Lp/<n> SONET/<n2> Sts/<n2> Lp/<n> SDH/<n2> Vc4/0 Lp/<n> SDH/<n2> Vc4/0 Vc12/<k>,<l>,<m> Laps/<n> Sts/<n2> Laps/<n> SDH/<n2> Vc4/0 Laps/<n> SDH/<n2> Vc4/0 Vc12/<k><l><m> Pbg/<n> Sts/<n2>	*Cbb PPEM300 gghh TBL
7011 5260 7011 5261	Lp/<n> SONET/<n2> Sts/<n2> Lp/<n> SDH/<n2> Vc4/0 Laps/<n> Sts/<n2> Laps/<n> Vc4/0 Pbg/<n> Sts/0	* bb PPEM300 gghh TBL
7011 5270	Laps/<n>	**bb PPEM300 gghh TBL
7011 5271 7011 5272 7011 5273 7011 5274	Laps/<n>	* bb PPEM300 gghh TBL
7011 5275	Laps/<n>	*Cbb PPEM300 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7011" (page 47)		
(Sheet 5 of 6)		

Table 9 (Continued)
MSS/MG15000 index group 7011: Port management system and automatic protection switching alarms

Alarm NTP Index	Component name	SCC2 header
7011 5290 7011 5291 7011 5292 7011 5293 7011 5294	Lp/<n> SDH/<n2> Vc4/0 Vc12/<k>, <l>, <m> Lp/<n> SONET/<n2> Sts/<n2> Vt1dot5/<x>, <y> Laps/<n> Vc4/0 Vc12/<k>, <l>, <m> Laps/<n> Sts/<n2> Vt1dot5/<x>, <y>	* bb PPEM303 gghh TBL
7011 5295 7011 5296	Lp/<n> SDH/<n2> Vc4/0 Vc12/<k>, <l>, <m> Lp/<n> SONET/<n2> Sts/<n2> Vt1dot5/<x>, <y> Laps/<n> Vc4/0 Vc12/<k>, <l>, <m> Laps/<n> Sts/<n2> Vt1dot5/<x>, <y>	*Cbb PPEM303 gghh TBL
7011 5297	Lp/<n> SDH/<n2> Vc4/0 Vc12/<k>, <l>, <m> Lp/<n> SONET/<n2> Sts/<n2> Vt1dot5/<x>, <y> Laps/<n> Vc4/0 Vc12/<k>, <l>, <m> Laps/<n> Sts/<n2> Vt1dot5/<x>, <y>	*Cbb PPEMeee gghh TBL where: eee = 303, 306
7011 5400 7011 5401 7011 5402 7011 5403	Lp/<n> Ethernet/<n2>	*Cbb PPEM300 gghh TBL
7011 5480	Lp/<n> Ethernet/<n2> OpticalModule	**bb PPEM300 gghh TBL
7011 5501	Lp/<n> SONET/<n2> Lp/<n> SONET/<n2> Sts/0 Laps/<n> Sts/0 Lp/<n> DS3/<n2> Lp/<n> DS3/<n2> DS1/<n3> Lp/<n> DS3/<n2> DS1/<n3> Chan/<n4> Pbg/<n> Sts/0	**bb PPEM300 gghh TBL
7011 5601 7011 5602	Lp/<n> DS3/<n2>	* bb PPEM300 gghh TBL
7011 5603 7011 5604	Lp/<n> DS3/<n2>	**bb PPEM300 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7011" (page 47)		
(Sheet 6 of 6)		

MSS/MG15000 index group: 7012

Instance ranges for SET/CLEAR index group: 7012

Lp instance range (<n>): 0 to 15

Card instance range (<n>): 0 to 15

FabricCard instance range (<i>): X or Y

Table 10

MSS/MG15000 index group 7012: Processor control system alarms

Alarm NTP Index	Component name	SCC2 header
7012 0050	Shelf	**bb PPEM303 gghh TBL
7012 0051	Shelf	aabb PPEM303 gghh TBL where: aa = “*C”, “**”
7012 0052	Shelf Shelf FabricCard/<i>	**bb PPEM303 gghh TBL
7012 0053	Shelf	**bb PPEM303 gghh TBL
7012 0055	Shelf	aabb PPEM303 gghh TBL where: aa = “**”, “* ”
7012 0056	Shelf	* bb PPEM303 gghh TBL
7012 0057 7012 0058	Shelf	**bb PPEM303 gghh TBL
7012 0059	Shelf	*Cbb PPEM304 gghh TBL
7012 0100	Shelf Card/<n>	aabb PPEM303 gghh TBL where: aa = “*C”, “* ”
7012 0103 7012 0104	Shelf Card/<n>	**bb PPEM303 gghh TBL
7012 0105	Shelf Card/<n>	* bb PPEM306 gghh TBL
7012 0200	Lp/<n>	*Cbb PPEM302 gghh TBL
Note: Refer to “Instance ranges for SET/CLEAR index group: 7012” (page 53)		
(Sheet 1 of 2)		

Table 10 (Continued)

MSS/MG15000 index group 7012: Processor control system alarms

Alarm NTP Index	Component name	SCC2 header
7012 0202	Lp/<n>	* bb PPEM306 gghh TBL
7012 0301	Shelf Card/<n> SparedServices	* bb PPEM302 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7012" (page 53)		
(Sheet 2 of 2)		

MSS/MG15000 index group: 7013

Instance ranges for SET/CLEAR index group: 7013

Lp instance range (<n>): 0 to 15

Table 11

MSS/MG15000 index group 7013: Message block usage alarms

Alarm NTP Index	Component name	SCC2 header
7013 0000	Lp/<n>	* bb PPEM301 gghh TBL
7013 0001	Lp/<n>	**bb PPEM301 gghh TBL
7013 0002 7013 0003 7013 0004 7013 0005 7013 0011	Lp/<n>	* bb PPEM301 gghh TBL
7013 0021	Lp/<n>	**bb PPEM301 gghh TBL
7013 0022	Lp/<n>	* bb PPEM301 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7013" (page 54)		

MSS/MG15000 index group: 7014**Instance ranges for SET/CLEAR index group: 7014**

Lp instance range (<n>): 0 to 15

Table 12**MSS/MG15000 index group 7014: Memory management alarms**

Alarm NTP Index	Component name	SCC2 header
7014 0000	Lp/<n>	* bb PPEM301 gghh TBL
7014 0001	Lp/<n>	**bb PPEM301 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7014" (page 55)		

MSS/MG15000 index group: 7015**Instance ranges for SET/CLEAR index group: 7015**

Server instance range (<n>): 1 to 10

Table 13**MSS/MG15000 index group 7015: Network time-of-day (TOD) synchronization**

Alarm NTP Index	Component name	SCC2 header
7015 0000 7015 0002	Time	**bb PPEM304 gghh TBL
7015 0010 7015 0011	Time Server/<n>	* bb PPEM300 gghh TBL
7015 0012	Time Server/<n>	* bb PPEM300 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7015" (page 55)		

MSS/MG15000 index group: 7017

Table 14

MSS/MG15000 index group 7017: Network clock synchronization alarms

Alarm NTP Index	Component name	SCC2 header
7017 1000	NS	* bb PPEM300 gghh TBL

MSS/MG15000 index group: 7021

Instance ranges for SET/CLEAR index group: 7021

Cache instance range (<n>): 0 to 15

Vr instance range (<i>): any string; usually the digit 0 for the management Vr

Vrf instance range (<y>): name of the vrf

IP address (<ipaddress>): address of the local IpLogicalInterface

Table 15

MSS/MG15000 index group 7021: Internet protocol alarms

Alarm NTP Index	Component name	SCC2 header
7021 0006	Vr/<i> Ip Cache/<n>	**bb PPEM302 gghh TBL
7021 0013	Vr/<i> Ip Cpp IsolatedDa/<ipaddress>,<n> Rtr/<i> Cpp IsolatedDa/<ipaddress>,<n> Rtr/<i> Vrf/<y> Cpp IsolatedDa/<ipaddress>,<n>	* bb PPEM305 gghh TBL
7021 0014	Vr/<i> Ip Cpp IsolatedDa/<ipaddress>,<n> Rtr/<i> Cpp IsolatedDa/<ipaddress>,<n> Rtr/<i> Vrf/<y> Cpp IsolatedDa/<ipaddress>,<n>	**bb PPEM305 gghh TBL
7021 1002 7021 1003 7021 1017	Vr/<i> Ip Ospf	* bb PPEM305 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7021" (page 56)		

MSS/MG15000 index group: 7026

Table 16

MSS/MG15000 index group 7026: LAN port management system alarms

Alarm NTP Index	Component name	SCC2 header
7026 3000	Lp/0 OamEnet/0	*Cbb PPEMeee gghh TBL where: eee = 300, 303
7026 3005	Lp/0 OamEnet/0	* bb PPEMeee gghh TBL where: eee = 300, 303

MSS/MG15000 index group: 7039

Instance ranges for SET/CLEAR index group: 7039

AtmIf instance range (<n>): 1 to 4095

Vcc instance range (<n2.n3>): where n2 is VPI, n3 is VCI

VPI instance range (<n2>): 0 to 4095

VCI instance range (<n3>): 0 to 65535

Table 17

MSS/MG15000 index group 7039: ATM core alarms

Alarm NTP Index	Component name	SCC2 header
7039 1000	AtmIf/<n>	* bb PPEM300 gghh TBL
7039 2000 7039 2003	AtmIf/<n> Vcc/<n2.n3>	* bb PPEM302 gghh TBL
7013 3000	AtmIf/<n> Vpt/<n2>	* bb PPEM300 gghh TBL
7039 4001	AtmIf/<n>	**bb PPEM300 gghh TBL
7039 5000	AtmIf/<n>	*Cbb PPEM300 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7039" (page 57)		

MSS/MG15000 index group: 7041**Instance ranges for SET/CLEAR index group: 7041**

AtmIf instance range (<n>): 1 to 4095

CfgNode instance range (<n>): 0 to 104

Table 18**MSS/MG15000 index group 7041: ATM networking alarms**

Alarm NTP Index	Component name	SCC2 header
7041 0050	AtmIf/<n> Uni Ilmi	**bb PPEMeee gghh TBL where: eee = 300, 303
7041 0150	AtmIf/<n> Uni Sig AtmIf/<n> Pnni Sig	**bb PPEM300 gghh TBL
7041 0200	AtmIf/<n> Uni Sig AtmIf/<n> Pnni Sig AtmIf/<n> Uni Ilmi AtmIf/<n> Pnni Rcc	**bb PPEM300 gghh TBL
7041 0250	AtmIf/<n> Pnni Rcc	**bb PPEM300 gghh TBL
7041 0253	AtmIf/<n> Pnni Rcc	**bb PPEM300 gghh TBL
7041 0301	Artg Pnni	**bb PPEM300 gghh TBL
7041 0302	Artg Pnni CfgNode/<n> Rcc	**bb PPEM300 gghh TBL
7041 0400	AtmIf/<n> Uni AtmIf/<n> Pnni	* bb PPEM300 gghh TBL
7041 0401	AtmIf/<n>	**bb PPEM300 gghh TBL
7041 0500	AtmIf/<n> Uni AtmIf/<n> Pnni	* bb PPEM300 gghh TBL
7041 0600 7041 0601	AtmIf/<n> Uni AtmIf/<n> Pnni	* bb PPEM302 gghh TBL
7041 0700	Artg Pnni CfgNode /<n>	**bb PPEM300 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7041" (page 58)		
(Sheet 1 of 2)		

Table 18 (Continued)**MSS/MG15000 index group 7041: ATM networking alarms**

Alarm NTP Index	Component name	SCC2 header
7041 0701	Atmif/<n> Pnni Rcc	**bb PPEM300 gghh TBL
7041 0703	Artg Pnni CfgNode /<n>	* bb PPEM300 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7041" (page 58)		
(Sheet 2 of 2)		

MSS/MG15000 index group: 7042**Instance ranges for SET/CLEAR index group: 7042**

Aal1Ces instance range (<n>): 1 to 16383

Table 19**MSS/MG15000 index group 7042: Circuit Emulation Service (CES) alarms**

Alarm NTP Index	Component name	SCC2 header
7042 0001	Aal1Ces/<n>	**bb PPEM301 gghh TBL
7042 0002	Aal1Ces/<n>	**bb PPEM302 gghh TBL
7042 0003	Aal1Ces/<n>	**bb PPEM300 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7042" (page 59)		

MSS/MG15000 index group: 7054

Instance ranges for SET/CLEAR index group: 7054

Card instance range (<n>): 1 to 15

Table 20

MSS/MG15000 index group 7054: Sparing panel subsystem alarms

Alarm NTP Index	Component name	SCC2 header
7054 0100 7054 0101 7054 0102 7054 0103 7054 0104 7054 0105	Shelf Card/<n>	**bb PPEM303 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7054" (page 60)		

MSS/MG15000 index group: 7056

The alarms in this index group apply to failures of the Voice Services Processor (VSP) and Narrowband Service Trunk over ATM (Nsta). This alarm group is specific to the Media Gateway 15000 application. For example, severe failure of the VSP card results in an alarm.

Instance ranges for SET/CLEAR index group: 7056

Lp instance range (<x>): 0 to 15
 PModule instance range (<y>): 1 to 24
 PBlock instance range (<z>): 1 to 2
 Nsta instance range (<i>): 0 to 15999
 GigE instance range (<m>): 0 or 1
 Control instance range (<n>): mg or sg
 Conn instance range (<l>): 0 to 128
 Brag instance range (<d>): 0 to 159999
 Q921 instance range (<r>): 1 to 31
 LapV5 instance value (<w>): 15, 16, 31
 Tag instance range (<u>): 0 to 16777215
 AtmTConn instance range (<h>): 1 to 2700 (max 4094)
 dBrag instance range (<t>): 0 to 127
 BragS instance range (<k>): 0 to 15
 CasDefn instance range (<z>): 0 to 24

Table 21

MSS/MG15000 index group 7056: Voice Services Processor (VSP) and Narrowband service trunk over ATM (Nsta) alarms

Alarm NTP Index	Component name	SCC2 header
7056 0002	Lp/<x> Vsp PModule/<y>	** bb PPEM306 gghh TBL
7056 0003	Lp/<x> Vsp PModule/<y> PBlock/<z>	*C bb PPEM303 gghh TBL
7056 0500 7056 0501 7056 0502	Lp/<x> Vsp GigE/<m>	** bb PPEM300 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7056" (page 61)		
(Sheet 1 of 2)		

Table 21 (Continued)
MSS/MG15000 index group 7056: Voice Services Processor (VSP) and Narrowband service trunk over ATM (Nsta) alarms

Alarm NTP Index	Component name	SCC2 header
7056 1000	Nsta/<i> Conn/<l> Nsta/<i> Vgs AtmTConn/<h>	**bb PEM300 gghh TBL
7056 1200	Nsta/<l> Vgs	* bb PPEM300 gghh TBL
7056 1201	Nsta/<i> Vgs IpMConn	** bb PPEM300 gghh TBL
7056 1202	Nsta/<i> Vgs Control/<n> Mediagateway Nsta/<i> Vgs Control/<n> Signalingateway	** bb PPEM300 gghh TBL
7056 1203	Nsta/<i> Vgs Control/<n> Mediagateway Aap Nsta/<i> Vgs Control/<n> Signalingateway Aap Nsta/<i> Vgs Control/<n> SpvcAp Nsta/<i> Vgs IpMConn Aap Nsta/<i> Vgs IpMConn SpvcAp Nsta/<l> Vgs AtmTConn/<h> Aap Nsta/<l> Vgs AtmTConn/<h> SpvcAp	** bb PPEM300 gghh TBL
7056 1204	Nsta/<i> Vgs	* bb PPEM302 gghh TBL
7056 1208	Nsta/<i> Vgs CasDefn/<z>	* bb PPEM302 gghh TBL
7056 1209	Lp/<x> Vsp PModule/<y>	* bb PPEM303 gghh TBL
7056 1210	Nsta/<x> Vgs Brag/<d> Q921/<r> Nsta/<i> Vgs BragS/<k> dBrag/<t> Q921	** bb PPEM300 gghh TBL
7056 1211	Nsta/<x> Vgs lua Nsta/<x> Vgs lua	** bb PPEM300 gghh TBL
7056 1213	Nsta/<x> Vgs Brag/<d> V5Link LapV5/<w>	** bb PPEM300 gghh TBL
7056 1217	Nsta/<x> Vgs Tag/<u>	*Cbb PPEM302 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7056" (page 61)		
(Sheet 2 of 2)		

MSS/MG15000 index group: 7060**Instance ranges for SET/CLEAR index group: 7060**

Lp instance range (<n>): 1 to 15

Aqm instance range (<n2>): 0 to 3

Table 22**MSS/MG15000 index group 7060: ATM and frame resource control alarms**

Alarm NTP Index	Component name	SCC2 header
7060 1000	Lp/<n> Eng Fcrc	**bb PPEM300 gghh TBL
7060 1100	Lp/<n> Eng Arc Aqm/<n2>	* bb PPEM300 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 7060" (page 63)		

MSS15000 / MG15000 Message alarms

Nortel Networks Multiservice Switch 15000 / Media Gateway 15000 (MSS/ MG15000) message alarms that are applicable to Succession Networks are divided into the following index groups:

- “MSS/MG15000 index group: 0000” (page 65)
- “MSS/MG15000 index group 7000: Provisioning alarms” (page 65)
- “MSS/MG15000 index group 7002: Backplane control system alarms” (page 67)
- “MSS/MG15000 index group 7003: Data collection system alarms” (page 68)
- “MSS/MG15000 index group 7006: Network management interface system alarms” (page 68)
- “MSS/MG15000 index group 7008: File system alarms” (page 69)
- “MSS/MG15000 index group 7011: Port management system and Automatic Protection Switching alarms” (page 70)
- “MSS/MG15000 index group 7012: Processor control system alarms” (page 70)
- “MSS/MG15000 index group 7015: Network time-of-day (TOD) synchronization alarms” (page 71)
- “MSS/MG15000 index group 7017: Network clock synchronization alarms” (page 72)
- “MSS/MG15000 index group 7021: Internet protocol alarms” (page 72)
- “MSS/MG15000 index group 7026: LAN port management system alarms” (page 73)
- “MSS/MG15000 index group 7039: ATM core alarms” (page 73)
- “MSS/MG15000 index group 7041: ATM networking alarms” (page 74)
- “MSS/MG15000 index group 7056: Voice Services Processor (VSP) and Narrowband service trunk over ATM (Nsta) alarms” (page 61)
- “MSS/MG15000 index group 7060: ATM and frame resource control alarms” (page 76)

- “MSS/MG15000 index group: 7071” (page 76)
- “MSS/MG15000 index group: 7080” (page 77)

MSS/MG15000 index group: 0000

The alarms in this index group include OSI administrative state changes, general engineering and memory alarms, and internal software error detected alarms.

Table 23
MSS/MG15000 index group 0000

Alarm NTP Index	Component name	SCC2 header
0000 9000 0000 9001 0000 9002 0000 9003	This alarm can apply to many node components. Frequently, the component is EM/<nodename>	* bb CA eee gghh TBL where: eee = 300, 302

MSS/MG15000 index group: 7000

The alarms in this index group apply to failures resulting from provisioning attempts. For example, the failure of a provisioning file to load results in an alarm.

Table 24
MSS/MG15000 index group 7000: Provisioning alarms

Alarm NTP Index	Component name	SCC2 Header
7000 0001	Prov	*Cbb PPEM302 gghh TBL
7000 0002	Prov	* bb PPEM302 gghh TBL
7000 0003	Prov	*Cbb PPEM302 gghh TBL
7000 0004	Prov	*Cbb PPEM302 gghh TBL
7000 0005	Prov	* bb PPEM302 gghh TBL
7000 0006	Prov	*Cbb PPEM302 gghh TBL
(Sheet 1 of 2)		

Table 24 (Continued)
MSS/MG15000 index group 7000: Provisioning alarms

Alarm NTP Index	Component name	SCC2 Header
7000 0008	Prov	**bb PPEM302 gghh TBL
7000 0009	Prov	**bb PPEM302 gghh TBL
7000 0012	Prov	* bb PPEM306 gghh TBL
7000 0013	Prov	* bb PPEM302 gghh TBL
7000 0015	Prov	* bb PPEM302 gghh TBL
7000 0016	Prov	* bb PPEM30x gghh TBL
7000 0029	Prov	* bb PPEM30x gghh TBL
7000 0030	Prov	* bb PPEM30x gghh TBL
7000 0031	Prov	* bb PPEM302 gghh TBL
7000 0032	Prov	* bb PPEM30x gghh TBL
7000 0035	This alarm can apply to many node components	* bb PPEM307 gghh TBL
7000 0039	Prov	* bb PPEM306 gghh TBL
(Sheet 2 of 2)		

MSS/MG15000 index group: 7002

The alarms in this index group apply to failures involving the backplane. For example, a communication failure between a card and the backplane results in an alarm.

Instance ranges for message index group: 7002

FabricCard instance range (<i>): X or

Card instance range (<n>): 0 to 15

Table 25**MSS/MG15000 index group 7002: Backplane control system alarms**

Alarm NTP Index	Component name	SCC2 Header
7002 0010	Shelf FabricCard/<i>	* bb PPEM303 gghh TBL
7002 0012	Shelf FabricCard/<i>	* bb PPEM303 gghh TBL
7002 0013	Shelf FabricCard/<i>	* bb PPEM303 gghh TBL
7002 0014	Shelf FabricCard/<i>	* bb PPEM303 gghh TBL
7002 1000	Shelf Card/<n>	*Cbb PPEM303 gghh TBL
Note: Refer to "Instance ranges for message index group: 7002" (page 67)		

MSS/MG15000 index group: 7003

The alarms in this index group apply to failures involving the data collection system. For example, an alarm or log queue size that has exceeded a threshold results in an alarm.

Instance ranges for message index group: 7003

Collector instance range (<t>): accounting, alarm, log, debug, scn, trap, stats, rtstats, appl

Agent instance range (<n>): 0 to15

Table 26**MSS/MG15000 index group 7003: Data collection system alarms**

Alarm NTP Index	Component name	SCC2 Header
7003 0004	Collector/<t> Agent/<n>	* bb PPEM301 gghh TBL
7003 0008	Collector/<t> Spooler	* bb PPEM306 gghh TBL
Note: Refer to "Instance ranges for message index group: 7003" (page 68)		

MSS/MG15000 index group: 7006**Instance ranges for message index group: 7006**

Management Interface type (<type>): Fmip, Ftp, Local, Telnet

Session instance range (<n>): 1 to 35 (Fmip); 1 to 16 (Ftp); 1 to 2 (Local); 1to16 (Telnet)

Table 27**MSS/MG15000 index group 7006: Network management interface system alarms**

Alarm NTP Index	Component name	SCC2 Header
7006 0001	Nmis/<type>	**bb PPEM305 gghh TBL
7006 0002	Nmis/<type> Session/<n>	* bb PPEM305 gghh TBL
7006 0003	Nmis/<type> Session/<n>2	**bb PPEM300 gghh TBL
Note: Refer to "Instance ranges for message index group: 7006" (page 68)		
(Sheet 1 of 2)		

Table 27 (Continued)**MSS/MG15000 index group 7006: Network management interface system alarms**

Alarm NTP Index	Component name	SCC2 Header
7006 0005	Nmis Ftp	**bb PPEM302 gghh TBL
7006 0006	Nmis Fmip	**bb PPEM305 gghh TBL
7006 0007	Nmis/<type> Session/<n>	**bb PPEM300 gghh TBL
7006 0008	Nmis Fmip	**bb PPEM300 gghh TBL
Note: Refer to "Instance ranges for message index group: 7006" (page 68)		
(Sheet 2 of 2)		

MSS/MG15000 index group: 7008**Instance ranges for message index group: 7008**

Disk instance range (<n>): 0 or 1

Card instance range (<x>): 0 or 1

Table 28**MSS/MG15000 index group 7008: File system alarms**

Alarm NTP Index	Component name	SCC2 Header
7008 1003	FileSystem	**bb PPEM302 gghh TBL
7008 1012	FileSystem Disk/<n>	* bb PPEM303 gghh TBL
7008 1013	FileSystem Disk/<n>	**bb PPEM303 gghh TBL
7008 1014	FileSystem Disk/<n>	**bb PPEM307 gghh TBL
7008 1015	FileSystem Disk/<n>	* bb PPEM307 gghh TBL
7008 1016	FileSystem Disk/<n>	* bb PPEM307 gghh TBL
7008 1018	FileSystem Disk/<n>	* bb PPEM303 gghh TBL
7008 1020	FileSystem	* bb PPEM303 gghh TBL
7008 1021	Shelf Card/<x>	**bb PPEM303 gghh TBL
Note: Refer to "Instance ranges for message index group: 7008" (page 69)		

MSS/MG15000 index group: 7011

Instance ranges for message index group: 7011

Lp instance range (<n>): 0 to 15

Port types (<type>): SONET, DS3

SONET instance range (<n2>): 0 to 3 (4-port FP); 0 to 15 (16-port FP)

DS3 instance range (<n2>): 0 to 3 (4-port FP); 0 to 11 (12-port FP)

Table 29

MSS/MG15000 index group 7011: Port management system and Automatic Protection Switching alarms

Alarm NTP Index	Component name	SCC2 Header
7011 2002	Lp/<n> <type>/<n2>	**bb PPEM303 gghh TBL
7011 5112	Lp/<n> DS3/<n2>	* bb PPEM300 gghh TBL
7011 8000	Lp/<n> <type>/<n2>	* bb PPEM300 gghh TBL
Note: Refer to "Instance ranges for message index group: 7011" (page 70)		

MSS/MG15000 index group: 7012

Instance ranges for message index group: 7012

Lp instance range (<n>): 0 to 15

Card instance range (<n>): 0 to 15

Table 30

MSS/MG15000 index group 7012: Processor control system alarms

Alarm NTP Index	Component name	SCC2 Header
7012 0054	Shelf	**bb PPEM303 gghh TBL
7012 0101	Shelf Card/<n>	* bb PPEM303 gghh TBL
7012 0102	Shelf Card/<n>	* bb PPEM301 gghh TBL
Note: Refer to "Instance ranges for message index group: 7012" (page 70)		
(Sheet 1 of 2)		

Table 30 (Continued)**MSS/MG15000 index group 7012: Processor control system alarms**

Alarm NTP Index	Component name	SCC2 Header
7012 0151 7012 0152 7012 0153	Shelf Card/<n>	**bb PPEM302 gghh TBL
7012 0154 7012 0155 7012 0156	Shelf Card/<n>	**bb PPEM303 gghh TBL
7012 0201	Lp/<n>	* bb PPEM306 gghh TBL
7012 0203	Lp/0	* bb PPEM303 gghh TBL
7012 0204	Lp/<n>	* bb PPEM306 gghh TBL
7012 0300	Shelf Card/<n> SparedServices	aabb PPEMeee gghh TBL where: aa = “*C”, “* ” eee = any
Note: Refer to “Instance ranges for message index group: 7012” (page 70)		
(Sheet 2 of 2)		

MSS/MG15000 index group: 7015**Table 31****MSS/MG15000 index group 7015: Network time-of-day (TOD) synchronization alarms**

Alarm NTP Index	Component name	SCC2 Header
7015 0001	Time	* bb PPEMeee gghh TBL where: eee = 304, 306, 307

MSS/MG15000 index group: 7017**Table 32****MSS/MG15000 index group 7017: Network clock synchronization alarms**

Alarm NTP Index	Component name	SCC2 Header
7017 1001	Ns	* bb PPEM301 gghh TBL

MSS/MG15000 index group: 7021**Instance ranges for message index group: 7021**

Vr instance range (<i>): any string; usually the digit 0 for the management Vr

Table 33**MSS/MG15000 index group 7021: Internet protocol alarms**

Alarm NTP Index	Component name	SCC2 Header
7021 0000	Vr/<i> lp	* bb PPEM302 gghh TBL
7021 1000 7021 1001 7021 1011	Vr/<i> lp Ospf	* bb PPEM302 gghh TBL
7021 1016	Vr/<i> lp Ospf	**bb PPEM302 gghh TBL
7021 1021	Vr/<i>	**bb PPEM302 gghh TBL
7021 1100	Vr/<i> lp Ospf	* bb PPEM300 gghh TBL
7021 1101	Vr/<i> lp Ospf	* bb PPEM302 gghh TBL
Note: Refer to "Instance ranges for message index group: 7021" (page 72)		

MSS/MG15000 index group: 7026**Table 34****MSS/MG15000 index group 7026: LAN port management system alarms**

Alarm NTP Index	Component name	SCC2 Header
7026 3002	LP/0 OamEthernet/0	* bb PPEM30x gghh TBL
7026 3003	LP/0 OamEthernet/0	* bb PPEM303 gghh TBL
7026 3006	LP/0 OamEthernet/0	* bb PPEM302 gghh TBL

MSS/MG15000 index group: 7039**Instance ranges for message index group: 7039**

AtmIf instance range (<n>): 1 to 4095

Vcc instance range (<n2.n3>): where n2 is VPI, n3 is VCI

VPI instance range (<n2>): 0 to 4095

VCI instance range (<n3>): 0 to 65535

Table 35**MSS/MG15000 index group 7039: ATM core alarms**

Alarm NTP Index	Component name	SCC2 Header
7039 2001	AtmIf/<n> Vcc/<n2.n3>	* bb PPEM302 gghh TBL
7039 4000	AtmIf/<n>	* bb PPEM300 gghh TBL
Note: Refer to "Instance ranges for message index group: 7039" (page 73)		

MSS/MG15000 index group: 7041

Instance ranges for message index group: 7041

AtmIf instance range (<n>): 1 to 4095

CfgNode instance range (<n>): 0 to 104

Top instance range (<n>): 0 to 104

Node instance range (<id>): 44 character hexadecimal digit

Vpt instance range (<n2>): 0 to 4095

Table 36

MSS/MG15000 index group 7041: ATM networking alarms

Alarm NTP Index	Component name	SCC2 Header
7041 0000	AtmIf/<n> Uni	* bb PPEM306 gghh TBL
7041 0001	AtmIf/<n> Uni	* bb PPEM303 gghh TBL
7041 0051	AtmIf/<n> Uni lImi	**bb PPEM300 gghh TBL
7041 0151	AtmIf/<n> Uni AtmIf/<n> Pnni AtmIf/<n> Vpt/<n2> Uni AtmIf/<n> Vpt/<n2> Pnni	*Cbb PPEM300 gghh TBL
7041 0251	AtmIf/<n> Pnni Rcc	**bb PPEM300 gghh TBL
7041 0252	AtmIf/<n> Pnni Rcc	**bb PPEM300 gghh TBL
7041 0602	ARtg Pnni Top/<n> Node/<id>	**bb PPEM301 gghh TBL
7041 0603	ARtg	**bb PPEM303 gghh TBL
Note: Refer to "Instance ranges for message index group: 7041" (page 74)		

MSS/MG15000 index group: 7056

The alarms in this index group apply to failures of the Voice Services Processor (VSP) and Narrowband service Trunk over ATM (Nsta). This alarm group is specific to the Media Gateway application. For example, severe failure of the VSP card results in an alarm.

Instance ranges for message index group: 7056

Lp instance range (<x>): 0 to 15

PModule instance range (<y>): 1 to 24

PBlock instance range (<z>): 1 to 2

Nsta instance range (<i>): 0 to 15999

Conn instance range (<l>): 0 to 128

Brag instance range (<d>): 0 to 159999

BragS instance range (<p>): 0 to 15

Table 37

MSS/MG15000 index group 7056: Voice Services Processor (VSP) and Narrowband service trunk over ATM (Nsta) alarms

Alarm NTP Index	Component name	SCC2 Header
7056 0006	Lp/<x> Vsp PModule/<y>	* bb PPEM303 gghh TBL
7056 1101	Nsta/<i> Conn/<l> Brag/<d> Ccst	* bb PPEM300 gghh TBL
7056 1212	Nsta/<i> Vgs lua	* bb PPEM300 gghh TBL
7056 1214	Lp/<x> Vsp PModule/<y>	** bb PPEM302 gghh TBL
7056 1215	Nsta/<i> Vgs BragS/<p>	** bb PPEM302 gghh TBL
Note: Refer to "Instance ranges for message index group: 7056" (page 75)		

MSS/MG15000 index group: 7060

Instance ranges for message index group: 7060

Lp instance range (<n>): 1 to 15

Table 38

MSS/MG15000 index group 7060: ATM and frame resource control alarms

Alarm NTP Index	Component name	SCC2 Header
7060 1200 7060 1300 7060 1400 7060 1500 7060 1600	Lp/<n> Eng Arc Ov Lp/<n> Eng	* bb PPEM301 gghh TBL
Note: Refer to "Instance ranges for message index group: 7060" (page 76)		

MSS/MG15000 index group: 7071

Instance ranges for message index group: 7071

LAN application instance range (<n>): 1 to 255

Table 39

MSS/MG15000 index group 7071: LAN Application alarms

Alarm NTP Index	Component name	SCC2 Header
7071 1000	La/<n>	*Cbb PPEM302 gghh TBL
Note: Refer to "Instance ranges for message index group: 7071" (page 76)		

MSS/MG15000 index group: 7080

Instance range for message index group: 7080

Software application (<name>): the name of the software application

Table 40

MSS/MG15000 index group 7080: Software file system alarms

Alarm NTP Index	Component name	SCC2 Header
7080 0100	Sw Av/<name>	**bb PPEM302 gghh TBL
Note: Refer to "Instance range for message index group: 7080" (page 77)		

Chapter 4

Summary of Preside MDM alarm logs

For information about fault management involving Nortel Networks Preside Multiservice Data Manager (MDM) alarms applicable to Succession Network solutions, see the following sections:

- “Preside MDM alarm logs” (page 79)
- “Identifying Preside MDM alarms in SCC2 logs” (page 80)
- “Preside MDM SET/CLEAR alarms” (page 81)

Preside MDM alarm logs

This section lists those Nortel Networks Preside MDM proxy SET/CLEAR alarms that are applicable to Succession Networks. These proxy SET/CLEAR alarms include software failure alarms and alarms from the Solaris or Sun Fire platforms, which Preside MDM software is monitoring. These alarms are initiated by Preside MDM on behalf of Nortel Networks Multiservice Switch 15000 / Media Gateway 15000 (MSS/MG15000) nodes and injected into the node’s alarm log stream. In the following sections, Preside MDM SET/CLEAR and message alarms are matched with the corresponding record for the same type of alarm in a SCC2 alarm log. Preside MDM SET/CLEAR alarms are those alarms where the *event* line has a value indicating a *set* or *clear* alarm. For more information of the lines in a SCC2 alarm log, see “Interpreting SCC2 logs” (page 31).

Note: The following sections do not include all corresponding Preside MDM CLEAR and SET alarm logs. The SCC2 header for the CLEAR alarm is distinguished from the corresponding SET alarm by the first two characters in the header. For example, the alarm severity field for a SET

alarm reads “aa”, while the alarm severity field for the CLEAR alarm replaces the “aa” with two blank spaces. For more information on the SCC2 alarm log header line, see “Interpreting SCC2 logs” (page 31).

Identifying Preside MDM alarms in SCC2 logs

This section tells you how to identify a SCC2 alarm log header and the corresponding Nortel Networks Preside Multiservice Data Manager (MDM) alarm.

Preside MDM alarm NTP index field

Preside MDM alarm NTP index consists of an eight digit number that uniquely identifies each type of alarm. The alarm identifier is composed of two parts

- four initial digits that identify the Index Group to which the alarm belongs
- four subsequent digits that identify the SubIndex number for the alarm

All of the records for Preside MDM alarms in this document are grouped on the basis of a common index group number. For example, all the records for a Preside MDM server monitoring alarms in Index Group 3011 that are applicable to Succession Networks, appear below the heading “Preside MDM index group: 3011”. The SubIndex number field uniquely identifies each alarm within an index group by giving the second four digit identifying number. For example, 3011 0100, the index group and SubIndex numbers, indicates a specific monitoring alarm.

Component field

The Component name field for each Nortel Networks Preside Multiservice Data Manager (MDM) alarm is also used to identify the alarm in the SCC2 alarm log. The component name indicates the managed object against which the alarm log is generated. For example, the component name of the 3011 0100 alarm is `NMS/<x> DISK/<y>`. The component name is preceded by the node name of the module which typically starts with EM.

SCC2 header field

The SCC2 header field presents the corresponding header from the SCC2 alarm log that matches the specific Preside MDM alarm already identified in the record. For example, the SCC2 header that matches the 3011 0100 alarm is aabb MDM 303 gghh TBL.

Comment field

The Comment field includes additional descriptive information about either a specific alarm or a group of alarms.

Preside MDM SET/CLEAR alarms

Nortel Networks Preside Multiservice Data Manager (MDM) SET/CLEAR alarms that are applicable to Succession Networks are divided into the following index groups:

- “Preside MDM index group 0999” (page 82)
- “Preside MDM index group 3010: Preside MDM server alarms” (page 83)
- “Preside MDM index group 3011: Preside MDM platform monitoring alarms” (page 84)
- “Preside MDM index group 600x: MDP application alarms” (page 86)

Note: All of Preside MDM SET/CLEAR alarms for Succession Network solutions are applicable to the Packet Trunking - AAL1, Universal Access - AAL1, and Universal Access - IP solutions.

Preside MDM index group: 0999

Alarm 0999 0001 indicates the loss of access between a Nortel Networks Multiservice Switch 15000 / Media Gateway 15000 node and Preside MDM server. The server tries to reconnect and when successful, does a state walk of major components on the shelf before issuing alarms for those components that are out-of-service.

Alarm 0999 0004 indicates that a duplicated device name has been detected. An attempt was made to add a Multiservice Switch 15000 or a Media Gateway 15000 device using the same name as a device that has already been defined.

Alarm 0999 0012 is a Preside MDM proxy alarm. This alarm, originating on the server, is sent on behalf of the node, as a result of a state walk or state change notification.

Instance ranges for SET/CLEAR index group: 0999

EM instance range (<nodename>): a string, typically the CLLI identifier for the MSS15000 or MG15000 node

Table 41
Preside MDM index group 0999

Alarm NTP index	Component name	SCC2 Header
0999 0001	EM/<nodename>	*Cbb MDM 303 gghh TBL
0999 0004	EM/<nodename>	**bb MDM 306 gghh TBL
0999 0012	This alarm can apply to many node components.	**bb PPEMeee gghh TBL where: eee = 300, 301, 302, 303, 304, 305, 306, 307
Note: Refer to "Instance ranges for SET/CLEAR index group: 0999" (page 82)		

Preside MDM index group: 3010

The alarms in this index group appear when there are faults with a Nortel Networks Preside Multiservice Data Manager (MDM) server processes, which are needed by Preside MDM tools and applications. The Preside MDM Log Display or corresponding UNIX utility (nmslog) may also be used to find the information for the cause of the problem.

Instance ranges for SET/CLEAR index group: 3010

NMS instance range (<x>): a string, typically the hostname of the Preside MDM server platform

APP instance range (<a>): a string, denoting the name of a Preside MDM software application

GROUP instance range (<g>): a string, denoting the HGDS group name for a set of Multiservice Switch nodes

PP instance range (<nodename>): a string, typically the CLI identifier for the node

Table 42

Preside MDM index group 3010: Preside MDM server alarms

Alarm NTP Index	Component name	SCC2 Header
3010 0000	NMS/<x> APP/<a>	**bb MDM 302 gghh TBL
3010 0700	NMS/<x> GROUP/<g>	* bb MDM 305 gghh TBL
3010 0701	NMS/<x> PP/<nodename>	* bb MDM 300 gghh TBL
3010 0702	NMS/<x> PP/<nodename>	* bb MDM 300 gghh TBL
3010 0703	NMS/<x> APPL TODCHANGEOVER	* bb MDM 304 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 3010" (page 83)		

Preside MDM index group: 3011

Nortel Networks Preside Multiservice Data Manager (MDM) servers monitoring of platforms such as Solaris and Sun Fire includes monitoring of the CPU, disk space, memory, local ports, and connectivity to adjacent neighbors. The severity of resource problems are determined with pre-set threshold values. Connectivity problems are determined using the ping command.

The alarms 3011 xxFF, where xx can be 01 through 07, are CLEAR alarms only. A single 3011 xxFF alarm clears all outstanding alarms from 3011 xx00 through 3011 xx99.

Instance ranges for SET/CLEAR index group: 3011

NMS instance range (<x>): a string, typically the hostname of the Preside MDM server platform

APP instance range (<a>): a string, denoting the name of a Preside MDM software application

DISK instance range (<v>): a string, denoting disk volume name

CPU instance range (<c>): a string, denoting the CPU id

PORT instance range (<ip>): an iP address or host name

CONNECTION instance range (<ip>): an IP address or host name

SDS instance range (<d>): logical disk name

Table 43

Preside MDM index group 3011: Preside MDM platform monitoring alarms

Alarm NTP Index	Component name	SCC2 Header
3011 0001	NMS/<x> APP/<a>	*Cbb MDM 303 gghh TBL
3011 0100	NMS/<x> DISK/<v>	aabb MDM 303 gghh TBL where: aa = "**C", "***", "** "
3011 01FF	NMS/<x>	bb MDM 303 gghh TBL
Note: Refer to "Instance ranges for SET/CLEAR index group: 3011" (page 84)		
(Sheet 1 of 2)		

Table 43 (Continued)**Preside MDM index group 3011: Preside MDM platform monitoring alarms**

Alarm NTP Index	Component name	SCC2 Header
3011 0200	NMS/<x> CPU/<c>	aabb MDM 303 gghh TBL where: aa = “*C”, “***”, “* ”
3011 02FF	NMS/<x>	bb MDM 303 gghh TBL
3011 0300	NMS/<x> MEMORY	aabb MDM 303 gghh TBL where: aa = “*C”, “***”, “* ”
3011 03FF	NMS/<x>	bb MDM 303 gghh TBL
3011 0401	NMS/<x> PORT/<ip>	**bb MDM 303 gghh TBL
3011 04FF	NMS/<x>	bb MDM 303 gghh TBL
3011 0501	NMS/<x> CONNECTION/<ip>	*Cbb MDM 303 gghh TBL
3011 05FF	NMS/<x>	bb MDM 303 gghh TBL
3011 0600	NMS/<x> SDS/<d>	*Cbb MDM 303 gghh TBL
3011 06FF	NMS/<x>	bb MDM 303 gghh TBL
3011 0700	NMS/<x>	aabb MDM 303 gghh TBL where: aa = “*C”, “***”
3011 07FF	NMS/<x>	bb MDM 303 gghh TBL
Note: Refer to “Instance ranges for SET/CLEAR index group: 3011” (page 84)		
(Sheet 2 of 2)		

Preside MDM index group: 600x**Instance ranges for SET/CLEAR index group: 600x**

NMS instance range (<x>): a string, typically the hostname of the Preside MDM server platform

MDP instance range (<a>): a string, denoting the name of an MDP software application

Table 44
Preside MDM index group 600x: MDP application alarms

Alarm NTP Index	Component name	SCC2 header
6000 0001 to 6004 0000	NMS/<x> MDP/<a>	aabb MDM 307 gghh TBL where: aa = "*C", "***", "* "
Note: Refer to "Instance ranges for SET/CLEAR index group: 600x" (page 85)		

Appendix A

Telcordia NMA information

This section summarizes the level of compatibility of the Telcordia NMA application with Succession Voice over ATM (VOA) configurations. Also included is specific information related to fault handling on Nortel Networks Multiservice Switch 15000 nodes. For a full description of the integration of Succession VOA configurations into Telcordia NMA, refer to the Telcordia NMA Operations System Impact Analysis (OSIA) reports. These reports are made available to customers by Telcordia Technologies, Incorporated.

As of the Succession VOA SN04 release, Telcordia NMA System release 12.0.1 incorporates fault handling on Multiservice Switch 15000 nodes for alarms that are common to both the Succession Network Packet Trunking - AAL1(PT-AAL1) and Universal Access - AAL1 (UA-AAL1) solutions. This release does not incorporate alarms specific only to a UA-AAL1 configuration.

As of the Succession VOA SN06 release, Telcordia NMA System release 13.0 is updated to incorporate fault handling on Multiservice Switch 15000 nodes for both the PT-AAL1 and UA-AAL1 solutions with exceptions for equipment and facility faults specific to the following configurations:

- 1:1 DS3 PNNI interfaces between Multiservice Switch 15000 nodes
- bridged SONET ports linking a Multiservice Switch 15000 node to either a CS2000 or SAM21 shelf controller

The following information should also be noted regarding Telcordia NMA handling of equipment and facility faults specific to a configuration of DS1-IMA (DS1 Inverse Multiplexing over ATM) interfaces linking a Multiservice Switch 15000 node to MG9000:

- Even though the DS1-IMA capability is available in the UA-AAL1 solution for SN05, the Telcordia NMA integration is introduced as part of the UA-AAL1 solution for SN06.
- The DS1-IMA capability on Multiservice Switch 15000 nodes is provided by a 1:1 equipment-protected pair of 4-port DS3 Channelized ATM (4-portDS3Ch ATM) FPs. The FP provides electrical DS3 facilities and connects via a sparing panel to a DS3:DS1 multiplexor.
- Telcordia NMA provides equipment-level fault handling for the 4-port DS3Ch ATM FPs.
- Telcordia NMA provides facility-level fault handling only for the DS3 facility layer, not for the DS1 or DS0 layers. In other words, the Telcordia NMA system handles faults as a non-channelized DS3 facility. Multiservice Switch 15000 nodes generate faults at the DS1 layer, but if required, those faults would be processed by the NMA user.
- In order to provide the DS3 facility, Telcordia NMA requires the specification of a 'Unit Identifier'. For this particular FP, the unit identifier is a 5-digit number of the following format: 'XYYZZ' where:

Table 45
Telcordia NMA Unit Identifier structure

X	identifies the shelf within a frame. The range is 1 to 2; 1 means the lower shelf in a frame, 2 means the upper shelf in a frame.
YY	identifies the slot within a shelf. The range is 02 through 15. A Multiservice Switch 15000 shelf has 16 slots (0 to 15) but FPs can not reside in slots 0 or 1.
ZZ	identifies the DS3 port within the slot. The range is 00 through 03.

Note: The unit identifier format is the same for optical FPs (for example, the 16-port OC-3 ATM FP). Unit identifiers are defined as part of the Telcordia TIRKS OSIA in SN04.

Nortel Networks Multiservice Switch 15000, Media Gateway 15000 and Preside MDM in Succession Networks

Fault Management Overview

PT-AAL1/UA-AAL1/UA-IP

(I)SN07

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