



LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0

Alarm Messages and Trouble-Clearing Guide

365-375-010R3.0
Issue GA
April 2002

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LambdaRouter™ All Optical Switch (AOS) 128/256 Alarm Messages and Trouble-Clearing Guide Release 3.0

365-375-010R3.0 Issue GA Date: April 2002

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About this information product

Purpose The *LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 Alarm Messages and Trouble-Clearing Guide* provides the information necessary to clear alarm messages and trouble conditions on the LambdaRouter™ AOS, a fully optical switch from Lucent Technologies.

This guide describes the LambdaRouter™ AOS fault management and the alarm message and trouble-clearing processes. It gives background information and step-by-step instructions for clearing alarm messages and trouble conditions.

Reason for reissue This is the first issue of this manual.

Safety labels The following safety labels are used in this manual:



WARNING

Indicates the presence of a hazard that can cause death or severe personal injury.



CAUTION

Indicates the presence of a hazard that will, or can, cause minor personal injury or property damage if the hazard is not avoided. Caution is also used for property-damage only accidents, including equipment damage, loss of software, or service interruption.



DANGER

Indicates the presence of an imminently hazardous situation that if not avoided, will result in death or serious injury.

Intended audience This manual is intended for use by all LambdaRouter™ AOS Release 3.0 operations and maintenance technicians.

How to use this information product The *LambdaRouter™ AOS 128/256 Release 3.0 Alarm Messages and Trouble-Clearing Guide* is organized in reference and task-oriented chapters. Reference information is provided in Chapters 1 through 5. Chapters 6 through 11 contain step-by-step procedures in alphabetical order. The following table gives a brief description of each chapter in this manual:

Ch.	Title	Contents
1	Safety	Provides laser safety information, electrostatic discharge considerations, and other important safety information pertaining to the LambdaRouter™ AOS Release 3.0.
2	Alarm Messages and Trouble-Clearing Introduction	Summarizes the LambdaRouter™ AOS Release 3.0 fault management and alarm messages and trouble-clearing processes.
3	Alarm, Event, and Error Message Details	Contains detailed information such as probable cause, definition, reporting type, alarm type, and so on.
4	Alarm Messages and Trouble-Clearing Tasks Background	Provides background information for trouble-clearing tasks that need it.

Ch.	Title	Contents
5	Supporting Tasks Background	Includes background information for supporting tasks or routine tasks that require it.
6	Recovery Tasks Background	Includes background information for recovery tasks that require it.
7	Common Alarm Messages and Trouble-Clearing Tasks	Contains procedures for clearing common alarm conditions.
8	Equipment Alarm Messages and Trouble-Clearing Tasks	Contains procedures for clearing equipment alarm conditions.
9	Optical Channel Alarm Messages and Trouble-Clearing Tasks	Contains procedures for clearing optical channel alarm conditions.
10	Supporting Tasks	Contains procedures such as logging in and out of the system and replacing equipment.
11	Recovery Tasks	Contains procedures for tasks that are not associated with alarm messages, such as system or power failures.
Appendix A:	Abbreviations and Acronyms	Defines abbreviations and acronyms used throughout the LambdaRouter™ AOS Release 3.0 documentation.
GL	Glossary	Defines terms used throughout the LambdaRouter™ AOS Release 3.0 documentation.
IN	Index	Provides detailed access to the contents of this document.

Conventions used The following typographical conventions are used in this information product:

- **Bold** type is used for emphasis and to identify LambdaRouter™ Optical Craft Interface (OCI) graphical user interface (GUI) menu and button selections.
- **Constant-width** type is used to identify user entered information or commands.

Related documentation The *LambdaRouter™ AOS 128/256 Release 3.0 Alarm Messages and Trouble-Clearing Guide* is part of a set of documents that support the LambdaRouter™ AOS 128/256 as follows:

Select Code	Document Title
365-375-011	<i>LambdaRouter™ AOS 128/256 Release 3.0 Installation Guide</i> Available to Lucent installers.
365-375-008	<i>LambdaRouter™ AOS 128/256 Release 3.0 Applications and Planning Guide</i> Available on paper and on the customer documentation CD-ROM.
365-375-009	<i>LambdaRouter™ AOS 128/256 Release 3.0 User Operations Guide</i> Available on paper and on the customer documentation CD-ROM.
365-375-010	<i>LambdaRouter™ AOS 128/256 Release 3.0 Alarm Messages and Trouble-Clearing Guide</i> Available on paper and on the customer documentation CD-ROM.
N/A	<i>LambdaRouter™ AOS 128/256 Release 3.0 Software Release Description</i> Available on paper.
365-375-013	<i>LambdaRouter™ AOS 128/256 Release 3.0 Operations Systems Engineering Guide</i> Available on paper and on the customer documentation CD-ROM.

Other documents

Customers may need information from the vendor of the personal computer used for the Optical Craft Interface (OCI) for LambdaRouter™ or other managing systems, for example, the Navis™ Optical Element Management System. Contact your account executive.

Related training

Lucent Technologies offers courses in various aspects of the LambdaRouter™ AOS, including an Operations and Maintenance course based in part on this *Alarm Messages and Trouble-Clearing Guide*.

Instructor-led courses are offered at Lucent facilities in Altamonte Springs, Florida, or they may be given at customer locations.

Course Registration

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International customers can reach the Lucent Technologies Customer Training Center by calling

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The LambdaRouter™ AOS 128/256 courses are listed in the table below.

Course Number	Course
LW2259	LambdaRouter™ AOS 128/256 Applications and Planning—instructor-led
LW2459	LambdaRouter™ AOS 128/256 Installation and Testing—instructor-led, hands-on
LW2659	LambdaRouter™ AOS 128/256 Operations and Maintenance—instructor-led, hands-on

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1 Safety

Overview

Purpose This chapter provides important laser, electrostatic discharge, and other safety information that must be read and understood to ensure the safety of the operator as well as the equipment.

Contents

Laser Safety Information	1 - 2
Electrostatic Discharge (ESD) Considerations	1 - 7
Important Safety Instructions	1 - 9



Laser Safety Information

Overview Lightwave/lightguide systems, their associated test sets, and similar operating systems use semiconductor laser transmitters that emit infrared light at wavelengths between approximately 800 nanometers (nm) and 1600 nm. The emitted light is above the red end of the visible spectrum, which is normally not visible to the human eye. Although radiant energy at near-infrared wavelengths is officially designated invisible, some people can see the shorter wavelength energy even at power levels several orders of magnitude below any that have been shown to cause injury to the eye.

Conventional lasers can produce an intense beam of monochromatic light. The term monochromatic light means a single wavelength output of pure color that may be visible or invisible to the eye. A conventional laser produces a small-size beam of light, and because the beam size is small the power density (also called irradiance) is very high. Consequently, lasers and laser products are subject to federal and applicable state regulations, as well as international standards, for their safe operation.

A conventional laser beam expands very little over distance, or is said to be very well collimated. Thus, conventional laser irradiance remains relatively constant over distance. However, lasers used in lightwave systems have a large beam divergence, typically 10 to 20 degrees. Here, irradiance obeys the inverse square law (doubling the distance reduces the irradiance by a factor of 4) and rapidly decreases over distance.

Lasers and eye damage The optical energy emitted by laser and high-radiance LEDs in the 400-1400 nm range may cause eye damage if absorbed by the retina. When a beam of light enters the eye, the eye magnifies and focuses the energy on the retina, magnifying the irradiance. The irradiance of the energy that reaches the retina is approximately 10^5 or 100,000 times more than at the cornea and, if sufficiently intense, may cause a retinal burn.

The damage mechanism at the wavelengths used in telecommunications is thermal in origin, that is, damage caused by heating. Therefore, a specific amount of energy is required for a definite time to heat an area of retinal tissue. Damage to the retina occurs only when one looks at the light sufficiently long that the product of the retinal irradiance and the viewing time exceeds the damage threshold. Optical energies above 1400 nm cause surface and skin burns and do not affect the retina. The thresholds for injury at wavelengths greater than 1400 nm are significantly higher than those for wavelengths in the retinal hazard region.

Classification of lasers

Manufacturers of lasers and laser products in the United States are regulated by the Food and Drug Administration's Center for Devices and Radiological Health (FDA/CDRH) under 21 CFR 1040. These regulations require manufacturers to certify each laser or laser product as belonging to one of these major Classes: I, II, IIa, IIIa, IIIb, or IV.

The International Electro-technical Commission (IEC) is an international standards body that writes laser safety standards. Classification schemes are similar with Classes divided into Classes 1, 2, 3A, 3B, and 4.

Lasers are classified according to the accessible emission limits and their potential for causing injury. Lightwave systems are generally classified as Class I/1, because, under normal operating conditions, all energized laser transmitting circuit packs are terminated on optical fibers which enclose the laser energy with the fiber sheath forming a protective housing. Also, covers are in place over the circuit pack shelves. The circuit packs themselves, however, may be FDA/CDRH Class I or IIIb or IEC Class 1, 3A, or 3B.

Lightwave safety precautions

In its normal operating mode, a lightwave system is totally enclosed and presents no risk of eye injury. It is a Class I/1 system under the FDA/CDRH and IEC classifications.

The lightguide cables that interconnect various components of a lightwave system can disconnect or break, and may expose people to lightwave emission. Also, certain measures and maintenance procedures may expose the technician to emission from the semiconductor laser during installation and servicing.

Unlike more familiar laser devices, such as solid-state and gas lasers, the emission pattern of a semiconductor laser results in a highly divergent beam. In a divergent beam, the irradiance (power density) decreases rapidly with distance. The greater the distance, the less energy will enter the eye and the less potential risk for eye injury. Inadvertently viewing an unterminated fiber or damaged fiber with the unaided eye at distances greater than 5 to 6 inches normally will not cause eye injury provided the power in the fiber is less than a few milliwatts at the shorter wavelengths and a few tens of milliwatts at the longer wavelengths. However, damage may occur if an optical instrument such as a microscope, magnifying glass, or eye loupe is used to stare at the energized fiber end.

**WARNING**

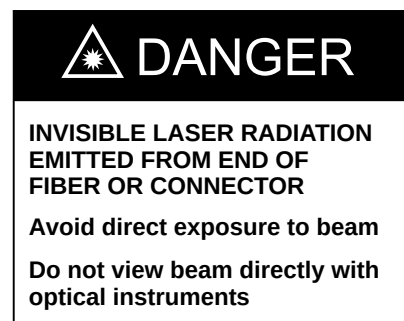
Use of controls, adjustments and procedures other than those specified herein may result in hazardous laser radiation exposure.

Safety precautions for enclosed systems

Under normal operating conditions, lightwave transmission systems are completely enclosed; nonetheless, the following precautions should be observed:

- Because of the potential for eye damage, technicians should not stare into optical connectors or broken fibers.
- Under no circumstance should lightwave/lightguide operations be performed by a technician before satisfactorily completing an approved training course.
- Since viewing lightwave emission directly in excess of Class I/1 limits with an optical instrument such as an eye loupe greatly increases the risk of eye damage, an appropriate label(s) must appear in plain view, in close proximity to the optical port, on the terminal equipment.

The figure below shows the FDA Class IIIB noninterlocked protective housing label.



NC-USM-111

Safety precautions for unenclosed systems

During service, maintenance, or restoration, a lightwave transmission system is considered unenclosed. Under these conditions, follow these practices:

- Only authorized, trained personnel shall be permitted to do service, maintenance, and restoration. Avoid exposing the eye to emissions from unterminated, energized optical connectors at close distances. Laser modules associated with the optical ports of laser circuit packs are typically recessed, which limits the exposure distance. Optical port shutters and automatic power reduction (APR) are engineering controls that are also used to limit the emissions. However, technicians removing or replacing laser circuit packs should not stare or look directly into the optical port with optical instruments or magnifying lenses. (Normal eye

wear or indirect viewing instruments, such as a FIND-R-SCOPE™, are not considered magnifying lenses or optical instruments.)

- Only authorized, trained personnel should use the lightwave test equipment during installation or servicing since this equipment contains semiconductor lasers. [Some examples of lightguide test equipment are Optical Time Domain Reflectometers (OTDRs), Hand-Held Loss Test Sets, and Feature Finders.]
- Under no circumstances shall any personnel scan a fiber with an optical microscope without verifying that all lightwave sources on the fiber are turned off.
- All unauthorized personnel shall be excluded from the immediate area of lightwave transmission systems during installation and service.

Consult *ANSI Z136.1, American National Standard for Safe Use of Lasers in the United States or outside the United States, IEC-60825, Part 2* for guidance on the safe use of optical fiber optic communication systems in the workplace.

The following table provides the optical specifications of the LambdaRouter™ AOS internal laser circuit packs.

Laser Circuit Pack Code	Wavelength (nm)	Output Power (mW)	Fiber Type (μm)	Connector Type	FDA Class/ IEC Class
LUU3AE	1300	1.0	SM (8.8)	LC	I/1
	1550	1.6	SM (8.8)	LC	I/1
LUU1AE	1300	0.5	SM (8.8)	LC	I/1

Lucent Technologies LambdaRouter™ AOS complies with FDA/CDRH 21 CFR 1040.10 and 1040.11 as a Class I and as an IEC-60825-1 Class 1 laser product.



Electrostatic Discharge (ESD) Considerations

Overview This section describes electrostatic discharge concerns.

Circuit pack/port unit handling precautions



CAUTION

Industry experience has shown that all integrated circuit packs can be damaged by static electricity that builds up on work surfaces and personnel. The static charges are produced by various charging effects of movement and contact with other objects. Dry air allows greater static charges to accumulate. Higher potentials are measured in areas with low relative humidity, but potentials high enough to cause damage can occur anywhere.

Observe the following precautions when handling circuit packs/units to prevent damage by electrostatic discharge:

- When handling circuit packs/units (storing, installing, removing, etc.) or when working on the backplane, always wear a grounded wrist strap or wear a heel strap and stand on a grounded, static-dissipating floor mat.
- Handle all circuit packs/units by the faceplate or latch and by the top and bottom outermost edges. Never touch the components, conductors, or connector pins.
- Observe all warning labels on bags and cartons. Whenever possible, do not remove circuit packs/units from antistatic packaging until ready to insert them into slots.
- If possible, open all circuit packs/units at a static-safe work position, using properly grounded wrist straps and static-dissipating table mats.
- Always store and transport circuit packs/units in static-safe packaging. Shielding is not required unless specified.

- Keep all static-generating materials such as food wrappers, plastics, and Styrofoam containers away from all circuit packs/units. When removing circuit packs/units from a cabinet, immediately place the circuit packs/units in static-safe packages.
- Whenever possible, maintain relative humidity above 20 percent.
- Always keep the electromagnetic interference (EMI)/ESD protective front covers on the shelves except during an upgrade or maintenance procedure. Once a circuit pack/unit is replaced in the shelf, immediately close the front cover.

Any connectors on the shelf interconnection panel that are not cabled should be fitted with a plastic dust cap to provide ESD protection.

Static control wrist straps

To reduce the possibility of ESD damage, shelves are equipped with grounding jacks to enable personnel to ground themselves using wrist straps, while handling circuit packs/units or working on a shelf. The wrist straps should be checked periodically with a wrist strap tester to ensure that they are working properly. The grounding jacks for connection of wrist straps are located on each user panel and the rear of the equipment bay. These jacks are labeled.



Important Safety Instructions

Overview This section provides important safety instructions that must be followed in order to ensure the safety of the operator and the equipment.

Safety instructions READ AND UNDERSTAND ALL INSTRUCTIONS.

When using this telecommunication equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

1. Follow all warnings and instructions marked on the product.
2. Slots and openings in this product are provided for ventilation. To protect it from overheating, these openings must not be blocked or covered.
3. Opening or removing rear covers or sheet-metal parts may present exposure to high current or electrical energy levels, or to other risks.
4. Never push objects of any kind into this product through slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electrical shock. Never spill liquid of any kind on the product.
5. Refer servicing to qualified service personnel.
6. Use caution when installing and modifying telecommunications lines.
7. Never install telecommunication wiring during a lightning storm.
8. Never install telecommunication jacks in wet locations unless the jack is specifically designed for wet locations.
9. Never touch uninsulated telecommunication wires or terminals unless the telecommunication line has been disconnected at the network interface.
10. Installation must include an independent frame ground conductor to building ground. Grounding/bonding circuit continuity is vital for safe operation of this equipment. Never operate with grounding/bonding conductor disconnected.

11. This product has two -48/-60 Vdc input power feeders. Disconnecting one power feeder will not de-energize the product. To reduce the risk of injury, disconnect both power supply cables when removing power from the system.
12. Metallic telecommunication interfaces should not leave the building premises unless connected to telecommunication devices providing primary and secondary protection, as applicable.
13. For continued protection against risk of fire, replace only with same type and rating of fuse.
14. Use only Lucent Technologies manufactured, recognized circuit packs/units/modules.
15. This equipment is intended for installation in Restricted Access Locations where access is controlled or where access can only be gained by service personnel with a key or tool. Access to this equipment is restricted to qualified service personnel only.
16. Power the unit only from -48/-60 Vdc sources providing Safety Extra Low Voltage (SELV) outputs.
17. This equipment must be provided with a readily accessible input power disconnect device as part of the building installation (such as a main power disconnect switch or external circuit breaker).

SAVE THESE INSTRUCTIONS.





2 Alarm Messages and Trouble-Clearing Introduction

Overview

Purpose This chapter provides an overview of Fault Management and describes types of alarm messages.

Contents This chapter includes the following sections:

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Fault Management

- Overview** The LambdaRouter™ All Optical Switch (AOS) 128/256 provides fault management through
- Automatic fault handling and alarm handling processing, which provides defect detection, defect-to-failure determination, and alarm notification by the system
 - Operator response to alarm messages and alarm indicators as directed by trouble-clearing tasks
 - Operator performance of routine maintenance as directed by supporting tasks

Fault handling and alarm handling When the LambdaRouter™ AOS detects a fault, a failure is declared, an alarm message is generated, and the alarm is reported to the other managing systems, User Panel, and Office Alarm System.

Response to alarm messages For every LambdaRouter™ AOS alarm message that requires user intervention, a procedure is provided. The procedure is designed to correct the condition that generated the alarm message. These procedures are referred to as Trouble-Clearing Tasks. Refer to chapters 7, 8, 9, and 10.

Performance of routine maintenance Routine maintenance is performed at regular intervals to keep the LambdaRouter™ AOS functioning properly. Routine maintenance tasks include replacing filters and cleaning optical connectors. Often a routine maintenance procedure is performed in support of a trouble-clearing task. Refer to Chapter 11, Supporting Tasks.

Protection switching The LambdaRouter™ AOS provides both manual fabric side switching and automatic fabric side switching of individual paths through the system. In the LambdaRouter™ AOS 256, this protection switching is the switchover of the path from SWS-0 to SWS-1 or from SWS-1 to SWS-0. In the LambdaRouter™ AOS 128, the switch is between logical sides SWMG-0 and SWMG-1.

Manually, the user can select traffic from either fabric or side on a per path basis.

Automatic transmission protection switching of the path through the system is completed in the presence of a failure within 10 milliseconds.

This switching affects only the paths that have a need to switch; other traffic is unaffected.



Required Tools and Test Equipment

- Tools and equipment list** The tasks in this guide require the following tools and equipment:
- Optical Craft Interface (OCI) for LambdaRouter
 - RJ-45 8-pin cable assembly
 - Electrostatic discharge (ESD) strap
 - #1 and #2 Phillips screwdrivers
 - #1 and #2 standard screwdrivers
 - Optical Power Meter with LC and MPX connectors, for example: HP8140A equipped with HP81401A (ITE# 6550) or equivalent
 - Optical Power Source, for example: TEK model TOP160 1550 nm continuous wavelength power source
 - Digital Voltage Meter (DVM), for example: Fluke 8060A Multimeter
 - Video Fiberscope, for example: Westover 200X Model FVW-209—Comcode 408463636 and probes Model FBP-S3 and Model FBP-SL-1
 - Individual pre-saturated alcohol wipes 99% pure—Comcode 901375147
 - Connector cleaner, for example: NTT-ME CLETOP Type A cassette cleaner—Comcode 901375154 with replacement tape—Comcode 901375014 and NTT-ME CLETOP Type B cassette cleaner—Comcode 901394262 with replacement tape—Comcode 901394270
 - Cables with LC connectors
 - 1.25 mm and 2.5 mm lint-free swabs, for example: Luminex Stick Port Cleaners—Comcodes 901375030 (1.25 mm) and 901375022 (2.5 mm)
 - Inert dusting gas or ionized air gun, if available
 - Blank circuit pack
 - Needle-nosed pliers
 - OXI board and cleaning pad kit—Comcode 848553657
 - Luminex cloth, 5.5 x 5.5—Comcode 901394320
 - Spare fiber dust covers—Comcode 108568312 (pack of 200)
 - Yellow labels for dust caps

- Fine tip permanent black markers for porous and non-porous surfaces
- 72 LC-base tool
- Replacement components, as specified in the **Before you begin** section of each task.

Sparing recommendation

The *LambdaRouter™ AOS 128/256 Release 3.0 Applications and Planning Guide, 365-375-008R3.0*, lists spare equipment that should be kept on hand. It provides guidelines for numbers of circuit packs and other equipment, depending on the size of your system.

Maintenance access

Maintenance access is through management system GUI or TL1 commands. Refer to the *LambdaRouter™ AOS 128/256 Release 3.0 Operations Systems Engineering Guide, 365-375-013R3.0* for information about TL1 commands.



Alarm Message Overview

Overview There are six categories of LambdaRouter TM AOS TL1 alarm messages:

- Control Communications Network (CCN)
- Common (COM)
- Equipment (EQPT)
- Optical Channel (OCH)
- Quality of Service (QoS)
- Security (SECU)

On the OCI Alarm List these categories are referred to as Alarm Type. Elsewhere, the categories are referred to as Modifier. The categories are discussed in greater detail later in this chapter. An alarm message Reporting Type is Standing until the condition is cleared. At that point, the system generates an alarm message with a Reporting Type of Clear.

Event messages The LambdaRouter TM AOS also detects a type of condition known as an event. Events are considered non-alarmed, neither audible nor visible indications are generated. The exceptions are the notifications for Loopback Crossconnect (LPBKCRS), Loopback Crossconnect - Forced Simplex (LPBK-SX), and Loopback Crossconnect - Forced Duplex (LPBK-DX) conditions. Depending on the condition, a task may be required to clear it.

Event and transient messages are entered in the alarm log. In some cases, these messages are the result of user activity. In this case, the user gets a response from the system.

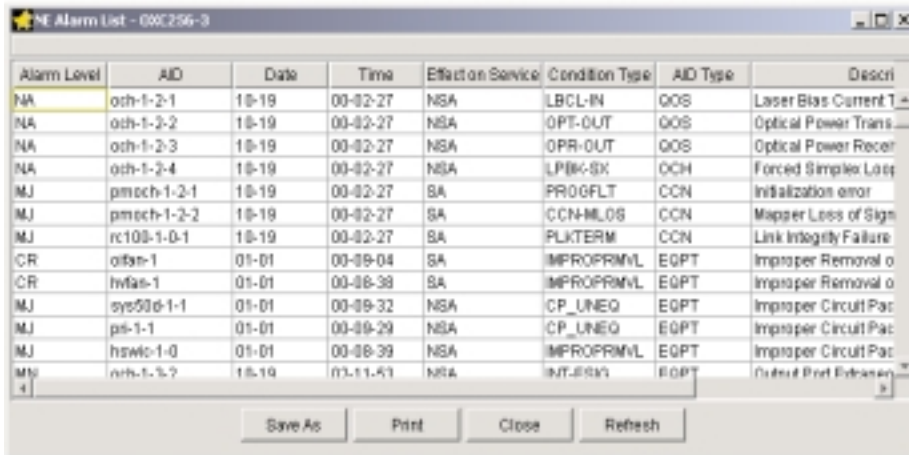
Transient alarm messages Some LambdaRouter TM AOS events are considered transient because they do not cause persistent alarm conditions in the LambdaRouter TM AOS. An event, such as crossing a threshold, triggers a transient condition without raising a standing alarm. The LambdaRouter TM AOS logs these events in the system. Since these conditions do not generate a standing alarm, no task to clear them is associated with the message, with the exception of the time of day clock battery failure (RTCLK) message.

Specific transient alarm messages are listed in the sections for Control Communications Network Alarm Messages, Common Alarm

Messages, Equipment Alarm Messages, Optical Channel Alarm Messages, Quality of Service Alarm Messages, and Security Alarm Messages in this chapter.

Alarm List with alarm messages example

The Alarm List from the OCI, shown in the following figure, provides details of current active alarms listed from highest to lowest priority. When there are multiple alarm messages with the same severity level, they are listed with the most recent first.



The screenshot shows a window titled "NE Alarm List - 000256-3". It contains a table with the following columns: Alarm Level, AID, Date, Time, Effect on Service, Condition Type, AID Type, and Description. The table lists 14 active alarms, with the first one highlighted in yellow.

Alarm Level	AID	Date	Time	Effect on Service	Condition Type	AID Type	Description
NA	och-1-2-1	18-19	00:02:27	NSA	LBCL-IN	GOS	Laser Bias Current T...
NA	och-1-3-2	18-19	00:02:27	NSA	OPT-OUT	GOS	Optical Power Trans...
NA	och-1-2-3	18-19	00:02:27	NSA	OPR-OUT	GOS	Optical Power Recei...
NA	och-1-3-4	18-19	00:02:27	NSA	LPBK-SX	OCH	Forced Simplex Loop...
MJ	pmoch-1-2-1	18-19	00:02:27	SA	PROGFLT	CCN	Initialization error
MJ	pmoch-1-2-2	18-19	00:02:27	SA	CCN-MLOS	CCN	Mapper Loss of Sign...
MJ	rc100-1-0-1	18-19	00:02:27	SA	PLKTERM	CCN	Link Integrity Failure
CR	oifas-1	01-01	00:09:04	SA	IMPROPRMVL	EQPT	Improper Removal o...
CR	hwfas-1	01-01	00:08:38	SA	IMPROPRMVL	EQPT	Improper Removal o...
MJ	sys50d-1-1	01-01	00:09:32	NSA	CP_UNEQ	EQPT	Improper Circuit Pac...
MJ	ps-1-1	01-01	00:09:29	NSA	CP_UNEQ	EQPT	Improper Circuit Pac...
MJ	hswic-1-0	01-01	00:08:39	NSA	IMPROPRMVL	EQPT	Improper Circuit Pac...
MN	och-1-3-2	18-19	01:11:51	NSA	INT-ERR	EQPT	Output Port Exhaus...

At the bottom of the window are buttons for "Save As", "Print", "Close", and "Refresh".

NC-LR188

Important! The screens shown in this manual may differ slightly from those on the OCI.

The table below provides descriptions of the Alarm List fields.

Field	Description
Alarm Level	The severity of the alarm message being reported. Values are Critical (CR), Major (MJ), or Minor (MN).
AID	Identifier of the equipment component or facility for which an alarm condition is being reported.
Date	Date when alarm message is generated. Format is MM-DD.
Time	Time, within the specified date, when the message is generated. Format is HH:MM:SS.
Affect on Service	Indicates the effect of the reported alarm on service or the effect of an alarm on the condition of the network element. Values are Service Affecting (SA), or Non-Service Affecting (NSA).
Probable Cause	A mnemonic description of the alarm condition.
Alarm Type	Type of Access Identifier used to report the alarm. Values are OCH, EQPT, and COM.
Description	A text description of the alarm condition.

Alarm log The LambdaRouter™ AOS maintains an alarm log of the last 512 entries. It contains details for all standing and clear-alarm messages, as well as event messages and transient alarm messages. This information is useful in diagnosing problems with the system.



Control Communications Network Alarm Messages

Description Control Communications Network (CCN) alarm messages pertain to port and application faults for the RC and RIP circuit packs, such as framer loss, initialization error, and so on.

Tasks for clearing CCN alarm messages are in Chapter 7, Control Communication Network Alarm Messages and Trouble-Clearing Tasks.



Common Alarm Messages

Description Common (COM) alarm messages are associated with faults that affect the entire system or are common to more than one circuit pack, such as resource usage, memory mismatch, power failures, and so on.

Tasks for clearing COM alarm messages are in Chapter 8, Common Alarm Messages and Trouble-Clearing Tasks.



Equipment Alarm Messages

Description Equipment (EQPT) alarm messages are associated with equipment failures such as transmission and control equipment. Also included in this category are service interruptions due to failures of power supply, fan assembly, or any configuration problems.

Tasks for clearing EQPT alarm messages are in Chapter 9, Equipment Alarm Messages and Trouble-Clearing Tasks.



Optical Channel Alarm Messages

Description Optical Channel (OCH) alarm messages indicate a facility-related event at the optical channel signal level.

Because a loopback cross-connect is used for testing, the condition is not alarmed. Neither visible nor audible alarms are generated, but the Abnormal LED on the User Panel is activated. The condition is logged in the alarm log.

Tasks for clearing OCH alarm messages are in Chapter 10, Optical Channel Alarm Messages and Trouble-Clearing Tasks.



Quality of Service Event Messages

Description Quality of Service (QoS) event messages are Performance Monitoring threshold crossing alerts. These messages are not considered alarms. They are notifications of events.



Security Alarm Messages

Description The Security (SECU) alarm message indicates an unauthorized login has been attempted.



Trouble-Clearing Description

Trouble-clearing description

Trouble-clearing is a user activity that corrects an alarmed condition. Procedures for clearing the alarmed condition are provided for each alarm message that requires user intervention. Trouble-clearing tasks include information about prerequisites, safety precautions, and step-by-step instructions. In this guide, trouble-clearing tasks are grouped by category: Common, Equipment, and Optical Channel. The title of each trouble-clearing task identifies the alarm condition it is addressing. The condition type is also included in the task title, for example, LOS. In some cases, multiple condition types are listed in the task title. In these cases, the task addresses each condition type.

Follow all local practices prior to performing any task in this manual. These practices may include obtaining the appropriate work instructions or work order.

Trouble-clearing task format

Trouble-clearing tasks

- Provide details about the circumstance that caused the failure
- Define prerequisite activities
- List related information
- Provide task activities in numbered steps

Some trouble-clearing tasks include supporting elements and/or references to Supporting Tasks in Chapter 8 or Recovery Tasks in Chapter 9.





3 Alarm, Event, and Error Message Details

Overview

Purpose The purpose of this chapter is to provide detailed information about every alarm, event, and error message generated by the LambdaRouter™ All Optical Switch (AOS) 128/256.

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Alarm, Event, and Error Messages

Order of presentation Alarm and event messages are grouped by Alarm Type (for example: COM) and listed alphabetically by Probable Cause (for example: ARST). TL1 error messages follow the alarm and event messages.

The order of presentation for alarm, event, and error messages is as follows:

1. Control Communications Network (CCN)
2. Common (COM)
3. Equipment (EQPT)
4. Optical Channel (OCH)
5. Quality of Service (QoS)
6. Security (SECU)
7. TL1 Error Messages

An error message is the response to a TL1 command that failed or was denied. Details of these error messages appear at the end of this chapter, listed alphabetically.

Type of data In addition to definitions for the fields that appear on the Optical Craft Interface Alarm List, the following information is provided for each alarm and event message:

- Definition
- Interface standard
- On-site indicators
- Alarm level provisionable via Alarm Severity Assignment Profile (ASAP), which is for future use
- Trouble- clearing task associated with the alarm message

For each error message returned in response to a TL1 command, the following information is provided:

- Error Message Text
- Definition
- Problem or Cause
- Corrective Action

Format of data The following sections describe the format of the data for alarm, event, and error messages:

Alarm and event messages data format

Alarm and event message data are presented in tables. Each alarm and event message table is preceded by the mnemonic description of the message and the text of the message. For example:

ARST Circuit pack autonomous reset

Each table contains details for the specific message as shown in the following table:

Probable Cause	A mnemonic description of the alarm condition. For example: LOS. This is a field on the OCI Alarm List.
Definition	A text description of the alarm condition. For example: Loss of Signal. This is the Description field on the OCI Alarm List.
Reporting Type	Valid values are: • Standing - a persistent, continuous fault is active. A clear notification is required to clear the alarm. • Transient - a temporary condition is detected. No clear notification is required to clear this condition.
Alarm Type	The category of the alarm. This is a field on the OCI Alarm List. Valid values are: • CCN • COM • EQPT • OCH • QoS • SECU

Type of AID Affected	The element affected. Valid values are: • Fan • IP Port • System • Shelf • Slot or Circuit Pack • SWIP • Port
Interface Standard	The type of signal to which this alarm applies. Valid values are: • SONET/SDH • Not applicable
Effect on Service	Either Non-applicable, Service-Affecting (SA), or Non-Service Affecting (NSA). This is the Affect on Service field on the OCI Alarm List.
Alarm Level	This is a field on the OCI Alarm List. Valid values are: • Critical (CR) • Major (MJ) • Minor (MN) • Not Alarmed (NA) • Non-applicable
On-site Indicator: User Panel	User Panel LEDs are visual indicators of the shelf status. Possible displays are: • Abnormal (ABN) LED • Alarm Cut-Off (ACO) LED • CR LED • MJ LED • MN LED • No LEDs illuminated

On-site Indicator: Circuit Pack Faceplate	Circuit Pack Faceplate LEDs are visual indicators of the circuit pack status. Possible displays are: • Constant Green LED • Constant Red LED • Flashing Red LED • Flashing Green LED • No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	Trouble-clearing task associated with alarm message, if any

Error messages data format

Each error message entry begins with the mnemonic description of the error and the text of the error message. For example:

ENEQ Equipage, Not Equipped, circuit pack not equipped

This is followed by a table with the following entries:

Definition	For example: The specified circuit pack is not equipped.
Problem or Cause	For example: The specified circuit pack is not provisioned or the specified AID for the target circuit pack is incorrect.
Corrective Action	For example: Provision the circuit pack and enter the command again or enter the command again with correct AID.
Applicable Command(s)	For example: INIT-EQPT



Control Communications Network Alarm and Event Messages

AUTODISC Auto Port Discovered

Probable Cause	AUTODISC
Definition	A port has successfully discovered its neighbor.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

AUTODISC-TO Auto Port Discovery Failed

Probable Cause	AUTODISC-TO
Definition	The automatic port discovery process timed-out without receiving a response from a neighbor.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

AUTODISC-MR Auto Port Discovery Failed

Probable Cause	AUTODISC-MR
Definition	The automatic port discovery process did not receive a response from a neighbor after the maximum number of re-tries.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

BADLINK-IN Link State Bad

Probable Cause	BADLINK-IN
Definition	There was no J0 response.
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	Far End LED illuminated.
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated.
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

BADLINK-OUT Link State Bad

Probable Cause	BADLINK-OUT
Definition	There was no J0 response.
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	Far End LED illuminated.
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated.
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

CCN-AIS-L AIS-L/AIS-MS

Probable Cause	CCN-AIS-L
Definition	The incoming signal has valid SONET/SDH Section/Regenerator Section overhead and otherwise is composed of all ones. There are also all ones in bits 6, 7, and 8 of the K2 byte.
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	IP Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	MN
On-site Indicator: User Panel	MN LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 100: Clearing AIS-L/AIS-MS (CCN-AIS-L)” (7-2)

CCN-BER Bit Error Rate B2

Probable Cause	CCN-BER
Definition	The line bit error rate (BER) threshold has been crossed. This threshold is provisionable with values from 10^{-5} to 10^{-9} .
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	IP Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	MN
On-site Indicator: User Panel	MN LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 101: Clearing Bit Error Rate B2 (CCN-BER)” (7-3)

CCN-EBER Excessive Bit Error Rate B2

Probable Cause	CCN-EBER
Definition	The line excessive bit error rate (EBER) threshold has been crossed. This threshold is provisionable with values from 10^{-3} to 10^{-5} .
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	IP Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	"Task 102: Clearing Excessive Bit Error Rate B2 (CCN-EBER)" (7-4)

CCN-LOF Loss of Frame

Probable Cause	CCN-LOF
Definition	Consecutive errored framing patterns in the incoming signal have been detected.
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	IP Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 106: Clearing Loss of Frame (CCN-LOF)” (7-16)

CCN-LOS Optical LOS

Probable Cause	CCN-LOS
Definition	This is an incoming loss of optical signal condition. A loss of signal (LOS) condition occurs when insufficient signal power is detected by the power monitor on the input port.
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	IP Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 109: Clearing Optical LOS (CCN-LOS)” (7-22)

CCN-MLOS Mapper Loss of Signal

Probable Cause	CCN-MLOS
Definition	An all-zeros pattern was detected. An all-zeros pattern corresponds to no light pulses for OC-N/STM-N optical interfaces.
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	IP Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 107: Clearing Mapper LOS (CCN-MLOS)” (7-17)

DCN-OOS DCN Out-of-Service

Probable Cause	DCN-OOS
Definition	DCN is out of service.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	System
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

END-TST-NBR End of Neighbor Confirmation

Probable Cause	END-TST-NBR
Definition	The node sending this event has ended transmitting the neighbor confirmation signal.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

INCON-NBR-IN Inconsistent neighbor data

Probable Cause	INCON-NBR-IN
Definition	Inconsistent neighbor data.
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	Far End LED illuminated.
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 103: Clearing Inconsistent Neighbor Data (INCON-NBR-OUT, INCON-NBR-IN)” (7-5)

INCON-NBR-OUT Inconsistent neighbor data

Probable Cause	INCON-NBR-OUT
Definition	Inconsistent neighbor data.
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	Far End LED illuminated.
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 103: Clearing Inconsistent Neighbor Data (INCON-NBR-OUT, INCON-NBR-IN)” (7-5)

MAN-OSPF No OSPF port

Probable Cause	MAN-OSPF
Definition	None of the IP ports on the alarmed circuit pack are provisioned to be both active and OSPF enabled.
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	SA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 108: Clearing No OSPF Port (MAN-OSPF)” (7-18)

NO-PROBE Link Probe Port Unavailable

Probable Cause	NO-PROBE
Definition	The link probe port is not available to support a discovery process.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

NORM-LSP LSP Signal Connection Up

Probable Cause	NORM-LSP
Definition	The LSP signal connection is up.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

NORMAL-DCN DCN Initialization Complete

Probable Cause	NORMAL-DCN
Definition	The initialization of DCN completed.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	System
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

NORMAL-ONN ONN Initialization Complete

Probable Cause	NORMAL-ONN
Definition	The initialization of ONN completed.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	System
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

ONN-OOS ONN Out-of-Service

Probable Cause	ONN-OOS
Definition	ONN is out of service.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	System
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

PLKTERM Link Integrity Failure

Probable Cause	PLKTERM
Definition	A total loss of communications at the incoming IP port has occurred.
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	IP Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 105: Clearing Link Integrity Failure (PLKTERM)” (7-14)

PROGFLT Initialization Error

Probable Cause	PROGFLT
Definition	The IP port failed to initialize.
Reporting Type	Standing
Alarm Type	CCN
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 104: Clearing Initialization Error (PROGFLT)” (7-9)

SLKTERM Single LSP Down

Probable Cause	SLKTERM
Definition	Loss of single label switched path.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

SLKTERM Double LSP Down

Probable Cause	SLKTERM
Definition	Loss of both label switched paths.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

START-TST-NBR Start of Neighbor Confirmation

Probable Cause	START-TST-NBR
Definition	The node sending this event has started transmitting the neighbor confirmation signal.
Reporting Type	Transient
Alarm Type	CCN
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None



Common Alarm and Event Messages

ARST Circuit pack autonomous reset

Probable Cause	ARST
Definition	The circuit pack reset itself.
Reporting Type	Transient
Alarm Type	COM
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	Some LEDs may flash during initialization.
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

AUTORESET Circuit pack autonomous reset

Probable Cause	AUTORESET
Definition	The circuit pack reset itself.
Reporting Type	Transient
Alarm Type	COM
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	Some LEDs may flash during reset.
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

CONTBUS Communication lost with sub-shelf

Probable Cause	CONTBUS
Definition	System controller cannot communicate with shelf.
Reporting Type	Standing
Alarm Type	COM
Type of AID Affected	Shelf
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 200: Clearing Communications Lost with Sub-Shelf (CONTBUS)” (8-2)

DATAFLT SNIP ID mismatch

Probable Cause	DATAFLT	
Definition	The non-volatile memory (NVM)-based fabric-initialization-database serial number disagrees with the Switch Shelf reported SNIP.	
Reporting Type	Standing	
Alarm Type	COM	
Type of AID Affected	Shelf	
Interface Standard	Not applicable	
Effect on Service	SA	NSA
Alarm Level	CR	MJ
On-site Indicator: User Panel	CR LED	MJ LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated	
Default Alarm Level Provisionable via ASAP	For future use	
Trouble-Clearing Task	"Task 203: Clearing Switch Shelf SNIP ID Mismatch (DATAFLT)" (8-22)	

NORMAL System startup complete

Probable Cause	NORMAL
Definition	Startup has completed.
Reporting Type	Transient
Alarm Type	COM
Type of AID Affected	System
Interface Standard	Not Applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

NVMU Non-volatile memory usage

Probable Cause	NVMU
Definition	Non-volatile memory usage condition occurs when available space is low and access times exceed maximum thresholds.
Reporting Type	Standing
Alarm Type	COM
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	Major (MJ)
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	Constant Red LED
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 202: Clearing Non-Volatile Memory Usage (NVMU)” (8-20)

OMERR Out of memory error

Probable Cause	OMERR
Definition	There was no available memory.
Reporting Type	Transient
Alarm Type	COM
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

PWR Power failure on feeder A or B.

Probable Cause	PWR
Definition	Power failure on feeder A or feeder B can be caused by the following conditions: • Defective circuit pack • Tripped circuit breaker • Faulty power filter connection • Failed power filter voltage protection (PFVP) unit
Reporting Type	Standing
Alarm Type	COM
Type of AID Affected	Shelf
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MN
On-site Indicator: User Panel	MN LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 201: Clearing Power Failure (PWR)” (8-16)

PWR-DUAL Shelf dual power failure

Probable Cause	PWR-DUAL
Definition	Shelf dual power failure can be caused by the following conditions: • Defective circuit pack • Tripped circuit breaker(s) • Faulty power filter connection(s) • Faulty power filter voltage protection (PFVP) unit(s)
Reporting Type	Standing
Alarm Type	COM
Type of AID Affected	Shelf
Interface Standard	Not applicable
Effect on Service	SA
Alarm Level	CR
On-site Indicator: User Panel	CR LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 201: Clearing Power Failure (PWR)” (8-16)

SCMMA System in maintenance condition

Probable Cause	SCMMA
Definition	The system is in a maintenance condition.
Reporting Type	Transient
Alarm Type	COM
Type of AID Affected	System
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

SWERR Software error on circuit pack

Probable Cause	SWERR
Definition	A software error occurred on a circuit pack.
Reporting Type	Transient
Alarm Type	COM
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

SYSBOOT System Restart

Probable Cause	SYSBOOT
Definition	The system has been rebooted.
Reporting Type	Transient
Alarm Type	COM
Type of AID Affected	System
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None



Equipment Alarm and Event Messages

CONTCOM HVDAC High Voltage Cable Fault

Probable Cause	CONTCOM
Definition	The HVDAC cable that provides the control signal for the Switch Interface Points (SWIPs) is disconnected or may be faulty.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Circuit pack.
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	Constant red LED
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 303: Clearing HVDAC High-Voltage Cable Disconnect (CONTCOM)” (9-15)

CONTR Controller circuit pack failure

Probable Cause	CONTR
Definition	Controller circuit pack has failed. A circuit pack stops functioning when one or more components on the circuit pack fail.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Slot
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	Constant red LED
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 300: Clearing Circuit Pack Failure (CONTR/CPF/CTNEQPT/FACTERM)” (9-4)

CP_UNEQ Improper removal of circuit pack

Probable Cause	CP_UNEQ
Definition	Either the SYS50D, RC, RIP, PMOD, PRI, EI, or DCC circuit pack was removed or unlatched.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Circuit pack.
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	Constant red LED, if circuit pack is not fully extracted
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 304: Clearing Improper Removal of Circuit Pack (CP_UNEQ/IMPROPRMVL)” (9-18)

CP_UNEQ Improper removal of circuit pack

Probable Cause	CP_UNEQ
Definition	The SEC MEM circuit pack was removed or unlatched.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MN
On-site Indicator: User Panel	MN LED
On-site Indicator: Circuit Pack Faceplate	Constant red LED, if circuit pack is not fully extracted
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 304: Clearing Improper Removal of Circuit Pack (CP_UNEQ/IMPROPRMVL)” (9-18)

CPF Controller circuit pack failure

Probable Cause	CPF
Definition	SYS50D, RC, RIP, PMOD, PRI, EI, or DCC circuit pack has failed. A circuit pack stops functioning when one or more components on the circuit pack fail.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	Constant red LED
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 300: Clearing Circuit Pack Failure (CONTR/CPF/CTNEQPT/FACTERM)” (9-4)

CPF Controller circuit pack failure

Probable Cause	CPF
Definition	Secondary (SEC) NVM circuit pack has failed. A circuit pack stops functioning when one or more components on the circuit pack fail.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MN
On-site Indicator: User Panel	MN LED
On-site Indicator: Circuit Pack Faceplate	Constant red LED
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 300: Clearing Circuit Pack Failure (CONTR/CPF/CTNEQPT/FACTERM)” (9-4)

CONTEQPT-RIP RIP-Autolock

Probable Cause	CONTEQPT-RIP
Definition	The system has reset the RIP circuit pack three times without success in an attempt to communicate with it.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	Constant red LED
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 317: Clearing RIP-Autolock (CONTEQPT-RIP)” (9-111)

CTNEQPT HVDAC circuit pack failure

Probable Cause	CTNEQPT
Definition	HVDAC circuit pack has failed. A circuit pack stops functioning when one or more components on the circuit pack fail.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	Constant red LED
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 300: Clearing Circuit Pack Failure (CONTR/CPF/CTNEQPT/FACTERM)” (9-4)

CTNEQPT Switch interface point suspect

Probable Cause	CTNEQPT
Definition	A Switch Interface Point (SWIP) that was previously associated with a port has been dissociated. The SWIP is now suspected of being faulty.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	SWIP
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MN
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 320: Clearing Switch Interface Point Suspect (CTNEQPT)” (9-120)

CTNEQPT-LOS Output port loss of signal

Probable Cause	CTNEQPT-LOS	
Definition	The output port power monitor is detecting insufficient signal strength on a channel that had normal signal strength at the input port power monitor.	
Reporting Type	Standing	
Alarm Type	EQPT	
Type of AID Affected	Port	
Interface Standard	Not applicable	
Effect on Service	NSA	SA
Alarm Level	MN	CR
On-site Indicator: User Panel	MN LED	CR LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated	
Default Alarm Level Provisionable via ASAP	For future use	
Trouble-Clearing Task	"Task 315: Clearing Output Port Loss of Signal (CTNEQPT-LOS)" (9-65)	

FACTERM Optical cross-connect interface circuit pack failure

Probable Cause	FACTERM	
Definition	A port unit has failed. A circuit pack stops functioning when one or more components on the circuit pack fail.	
Reporting Type	Standing	
Alarm Type	EQPT	
Type of AID Affected	Circuit pack	
Interface Standard	Not applicable	
Effect on Service	SA	NSA
Alarm Level	CR	MN
On-site Indicator: User Panel	CR LED	MN LED
On-site Indicator: Circuit Pack Faceplate	Constant red LED	Constant red LED
Default Alarm Level Provisionable via ASAP	For future use	
Trouble-Clearing Task	“Task 315: Clearing Output Port Loss of Signal (CTNEQPT-LOS)” (9-65)	

FAILTOSW Output port fail to switch

Probable Cause	FAILTOSW
Definition	The output port selector failed to select the fabric with sufficient signal strength when the output port power monitor has detected insufficient signal strength on the currently selected fabric.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	SA
Alarm Level	CR
On-site Indicator: User Panel	CR LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 316: Clearing Output Port Fail to Switch (FAILTOSW)” (9-108)

IMPROPRMVL Improper removal of circuit pack

Probable Cause	IMPROPRMVL		
Definition	HVDAC circuit pack was removed or unlatched or the OXI circuit pack was removed or unlatched without provisioning it out of service.		
Reporting Type	Standing		
Alarm Type	EQPT		
Type of AID Affected	Circuit pack		
Interface Standard	Not applicable		
Effect on Service	SA	NSA	NSA
Alarm Level	CR	MJ	MN
On-site Indicator: User Panel	CR LED	MJ LED	MN LED
On-site Indicator: Circuit Pack Faceplate	Constant red LED, if circuit pack not fully extracted		
Default Alarm Level Provisionable via ASAP	For future use		
Trouble-Clearing Task	"Task 304: Clearing Improper Removal of Circuit Pack (CP_UNEQ/IMPROPRMVL)" (9-18)		

IMPROPRMVL Improper removal of circuit pack

Probable Cause	IMPROPRMVL
Definition	OSWIC or HSWIC circuit pack was removed or unlatched.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	Constant red LED, if latch is open
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 304: Clearing Improper Removal of Circuit Pack (CP_UNEQ/IMPROPRMVL)” (9-18)

IMPROPRMVL Improper removal of fan

Probable Cause	IMPROPRMVL
Definition	The fan unit was removed.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Fan
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 305: Clearing Improper Removal of Fan (IMPROPRMVL)” (9-24)

IMPROPRMVL Switch shelf extraction

Probable Cause	IMPROPRMVL
Definition	SNIP value cannot be read.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Shelf
Interface Standard	Not applicable
Effect on Service	SA
Alarm Level	CR
On-site Indicator: User Panel	CR LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 321: Clearing Switch Shelf Extraction (IMPROPRMVL)” (9-145)

INHAUDB System is in ACO condition

Probable Cause	INHAUDB
Definition	The audible alarm has been silenced.
Reporting Type	Transient
Alarm Type	EQPT
Type of AID Affected	System
Interface Standard	Not applicable
Effect on Service	Not applicable
Alarm Level	Not applicable
On-site Indicators: User Panel	Alarm Cut-Off (ACO) LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

INT Fan failure

Probable Cause	INT
Definition	A fan failure has been detected.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Fan
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 302: Clearing Failed Fan (INT)” (9-10)

INT-ESIG Output port extraneous signal

Probable Cause	INT-ESIG
Definition	The output power monitor is detecting a signal when the port is not dedicated to any valid cross-connect. This alarm could be caused by a faulty Optical Cross-Connect Interface circuit pack.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MN
On-site Indicators: User Panel	MN LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 314: Clearing Output Port Extraneous Signal (INT-ESIG)” (9-59)

INT-AIS-L Outgoing AIS-L /AIS-MS

Probable Cause	INT-AIS-L
Definition	The outgoing signal has valid SONET/SDH Section/Regeneration Section overhead, but is otherwise composed of all ones.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	MN
On-site Indicators: User Panel	MN LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 309: Clearing Outgoing AIS-L (INT-AIS-L)” (9-38)

INT-BER Outgoing signal degrade

Probable Cause	INT-BER
Definition	The line bit error rate (BER) threshold has been crossed. This threshold is provisionable with values for 10^{-5} to 10^{-9} .
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	SA
Alarm Level	MJ
On-site Indicators: User Panel	MJ LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 312: Clearing Outgoing Signal Degrade BER (INT-BER)” (9-51)

INT-EBER Outgoing signal fail EBER

Probable Cause	INT-EBER
Definition	The excessive bit error rate threshold has been crossed. This threshold is provisionable with values for 10^{-3} to 10^{-5} .
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	SA
Alarm Level	CR
On-site Indicators: User Panel	CR LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 313: Clearing Outgoing Signal Fail EBER (INT-EBER)” (9-55)

INT-LOF Outgoing loss of frame

Probable Cause	INT-LOF
Definition	Consecutive errored framing patterns have been detected.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	SA
Alarm Level	CR
On-site Indicators: User Panel	CR LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 310: Clearing Outgoing Loss of Frame (INT-LOF)” (9-42)

INT-LOS Outgoing loss of signal

Probable Cause	INT-LOS
Definition	An all-zeros pattern was detected. An all-zeros pattern corresponds to no light pulses for OC-N/STM-N optical interfaces.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	SA
Alarm Level	CR
On-site Indicators: User Panel	CR LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 311: Clearing Outgoing Loss of Signal (INT-LOS)” (9-47)

NVMW Non-volatile memory failure

Probable Cause	NVWM
Definition	The number of failed NVM data clusters exceeds a predetermined insufficient capacity threshold.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Circuit pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicator: Circuit Pack Faceplate	Constant red LED
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 308: Clearing Non-Volatile Memory Failure (NVMW)” (9-35)

PRCDRERR Invalid circuit pack

Probable Cause	PRCDRERR	
Definition	The inserted circuit pack type cannot be read or does not match the provisioned circuit pack type for the slot.	
Reporting Type	Standing	
Alarm Type	EQPT	
Type of AID Affected	Circuit pack	
Interface Standard	Not applicable	
Effect on Service	NSA	
Alarm Level	MN	MJ
On-site Indicator: User Panel	MN LED	MJ LED
On-site Indicators: Circuit Pack Faceplate	no LEDs illuminated	
Default Alarm Level Provisionable via ASAP	For future use	
Trouble-Clearing Task	“Task 301: Clearing Invalid Circuit Pack (PRCDRERR)” (9-7)	

RTCLK Time of day clock battery fail

Probable Cause	RTCLK
Definition	The RC time of day clock battery failed.
Reporting Type	Transient
Alarm Type	EQPT
Type of AID Affected	Circuit Pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicator: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 322: Clearing Time of Day Clock Battery Failure (RTCLK)” (9-148)

SWMTXMOD Improper SWIP association

Probable Cause	SWMTXMOD
Definition	During port initialization or SWIP block assignment, a faulty SWIP was associated with a port.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 306: Clearing Improper SWIP Association (SWMTXMOD)” (9-29)

SWMTXMOD_UAS SWIP not assigned

Probable Cause	SWMTXMOD_UAS
Definition	The SWIP assignment are missing for ports on circuit pack.
Reporting Type	Standing
Alarm Type	EQPT
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 319: Clearing SWIP Not Assigned (SWMTXMOD_UAS)” (9-117)

SW-RC RC Auto Side-switch

Probable Cause	SW-RC
Definition	The RC circuit pack download attempt has failed three times or the RIP circuit pack has been reset without success in an attempt to communicate with the RC circuit pack.
Reporting Type	Transient
Alarm Type	EQPT
Type of AID Affected	Circuit Pack
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 318: Clearing RC Auto Sideswitch (SW-RC)” (9-114)

WATM-TO Microcontroller failure

Probable Cause	WATM-TO	
Definition	The system cannot communicate with the microcontroller.	
Reporting Type	Standing	
Alarm Type	EQPT	
Type of AID Affected	Circuit pack	
Interface Standard	Not applicable	
Effect on Service	SA	NSA
Alarm Level	CR	MN
On-site Indicator: User Panel	CR LED	MN LED
On-site Indicators: Circuit Pack Faceplate	Constant red LED	
Default Alarm Level Provisionable via ASAP	For future use	
Trouble-Clearing Task	“Task 307: Clearing Microcontroller Failure (WATM-TO)” (9-32)	



Optical Channel Alarm and Event Messages

AIS-L Incoming AIS-L/AIS-MS

Probable Cause	AIS-L
Definition	The incoming signal has valid SONET/SDH Section/Regenerator Section overhead and otherwise is composed of all ones. There are also all ones in bits 6, 7, and 8 of the K2 byte.
Reporting Type	Standing
Alarm Type	OCH
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	MN
On-site Indicator: User Panel	MN LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 400: Clearing Incoming AIS-L/AIS-MS (AIS-L)” (10-2)

BER Incoming signal degrade B2

Probable Cause	BER
Definition	The line bit error rate (BER) threshold has been crossed. This threshold is provisionable with values from 10^{-5} to 10^{-9} .
Reporting Type	Standing
Alarm Type	OCH
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	SA
Alarm Level	MJ
On-site Indicator: User Panel	MJ LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 405: Clearing Incoming Signal Fail B2 (EBER)” (10-18)

EBER Incoming signal fail B2

Probable Cause	EBER
Definition	The line excessive bit error rate (EBER) threshold has been crossed. This threshold is provisionable with values from 10^{-3} to 10^{-5} .
Reporting Type	Standing
Alarm Type	OCH
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	SA
Alarm Level	CR
On-site Indicator: User Panel	CR LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 405: Clearing Incoming Signal Fail B2 (EBER)” (10-18)

LOF Incoming loss of frame

Probable Cause	LOF	
Definition	Consecutive errored framing patterns have been detected. If the Alarm Level is Minor, the alarm is for an idle port.	
Reporting Type	Standing	
Alarm Type	OCH	
Type of AID Affected	Port	
Interface Standard	SONET/SDH	
Effect on Service	SA	
Alarm Level	CR	[MN]
On-site Indicator: User Panel	CR LED	MN LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated	
Default Alarm Level Provisionable via ASAP	For future use	
Trouble-Clearing Task	"Task 401: Clearing Incoming Loss of Frame (LOF)" (10-3)	

LOS Incoming loss of signal (optical)

Probable Cause	LOS	
Definition	This is an incoming loss of optical signal condition. A loss of signal (LOS) condition occurs when insufficient signal power is detected by the power monitor on the input port.	
Reporting Type	Standing	
Alarm Type	OCH	
Type of AID Affected	Port	
Interface Standard	Not applicable	
Effect on Service	SA	NSA
Alarm Level	CR	MN
On-site Indicator: User Panel	CR LED	MN LED
On-site Indicators: Circuit Pack Faceplate	Flashing red LED	
Default Alarm Level Provisionable via ASAP	For future use	
Trouble-Clearing Task	"Task 403: Clearing Incoming Loss of Signal (Optical) (LOS)" (10-10)	

LOS-MOD-ERR LOS and optical amplifier on

Probable Cause	LOS-MOD-ERR	
Definition	Loss of Signal and Optical Amplifier On failures are detected.	
Reporting Type	Standing	
Alarm Type	OCH	
Type of AID Affected	Port	
Interface Standard	Not applicable	
Effect on Service	SA	NSA
Alarm Level	CR	MN
On-site Indicator: User Panel	CR LED	MN LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated	
Default Alarm Level Provisionable via ASAP	For future use	
Trouble-Clearing Task	“Task 408: Clearing LOS and Optical Amplifier On Failure (LOS-MOD-ERR)” (10-24)	

LPBKCRS Loopback crossconnect

Probable Cause	LPBKCRS
Definition	A normal loopback has been established on an idle input port.
Reporting Type	Standing
Alarm Type	OCH
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	Abnormal (ABN) LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

LPBK-SX Forced simplex loopback

Probable Cause	LPBK-SX
Definition	A forced simplex loopback has been established on a busy input port. The loopback uses only one switch fabric. The other switch fabric provides a transmission path for service. User action may cause a protection switch at the output port.
Reporting Type	Standing
Alarm Type	OCH
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	Abnormal (ABN) LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

LPBK-DX Forced duplex loopback

Probable Cause	LPBK-DX
Definition	A forced loopback has been established on a busy input port. Both switch fabrics are used for this loopback. User action has eliminated both service transmission paths.
Reporting Type	Standing
Alarm Type	OCH
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	ABN LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

MLOS Incoming loss of signal

Probable Cause	MLOS	
Definition	Mapper detects no signal. If the Alarm Level is Minor, the alarm is for an idle port.	
Reporting Type	Standing	
Alarm Type	OCH	
Type of AID Affected	Port	
Interface Standard	SONET/SDH	
Effect on Service	SA	NSA
Alarm Level	CR	[MN]
On-site Indicator: User Panel	CR LED	MN LED
On-site Indicators: Circuit Pack Faceplate	Flashing Red LED	
Default Alarm Level Provisionable via ASAP	For future use	
Trouble-Clearing Task	"Task 402: Clearing Incoming Loss of Signal (MLOS)" (10-4)	

MOD Input optical amplifier failure

Probable Cause	MOD
Definition	The system is unable to communicate with the microcontroller.
Reporting Type	Standing
Alarm Type	OCH
Type of AID Affected	Port
Interface Standard	Not applicable
Effect on Service	SA
Alarm Level	CR
On-site Indicator: User Panel	CR LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	“Task 406: Clearing Input Optical Amplifier Failure (MOD)” (10-19)

MOD-ERR Optical amplifier on

Probable Cause	MOD-ERR	
Definition	Optical Amplifier power is detected when there should be none.	
Reporting Type	Standing	
Alarm Type	OCH	
Type of AID Affected	Port	
Interface Standard	Not applicable	
Effect on Service	SA	NSA
Alarm Level	CR	MN
On-site Indicator: User Panel	CR LED	MN LED
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated	
Default Alarm Level Provisionable via ASAP	For future use	
Trouble-Clearing Task	"Task 407: Clearing Optical Amplifier On Failure (MOD-ERR)" (10-22)	



Quality of Service Event Messages

CV-L Code Violation Line TCA

Probable Cause	CV-L
Definition	The provisioned threshold for the Code Violations - Line parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

CV-LFE Code Violation Line FarEnd TCA

Probable Cause	CV-LFE
Definition	The provisioned threshold for the Code Violations - Line Far End parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

CV-S Code Violation Sect TCA

Probable Cause	CV-S
Definition	The provisioned threshold for the Code Violations - Section parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

ES-L Error Sec Line TCA

Probable Cause	ES-L
Definition	The provisioned threshold for the Errored Seconds - Line parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

ES-LFE Error Sec Line FarEnd TCA

Probable Cause	ES-LFE
Definition	The provisioned threshold for the Errored Seconds - Line Far End parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

ES-S Error Sec Sect TCA

Probable Cause	ES-S
Definition	The provisioned threshold for the Errored Seconds - Section parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

LBC-IN Laser Bias Current TCA

Probable Cause	LBC-IN
Definition	The observed laser bias current values for the ingress optics (signal transmitted towards the switch fabric) exceeds the beginning of life nominal value by at least 50%.
Reporting Type	Standing
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

LBC-OUT Laser Bias Current TCA

Probable Cause	LBC-OUT
Definition	The observed laser bias current values for the egress optics (signal transmitted towards the client or network) exceeds the beginning of life nominal value by at least 50%.
Reporting Type	Standing
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

MS_F_BBE MS FarEnd Bgd Blk Error TCA

Probable Cause	MS_F_BBE
Definition	The provisioned threshold for the Multiplex Section Far End Background Block Errors parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

MS_F_ES MS FarEnd Error Sec TCA

Probable Cause	MS_F_ES
Definition	The provisioned threshold for the Multiplex Section Far End Errored Seconds parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

MS_F_SES MS FarEnd Svrly Error Sec TCA

Probable Cause	MS_F_SES
Definition	The provisioned threshold for the Multiplex Section Far End Severely Errored Second parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

MS_F_UAS MS FarEnd Unavail Sec TCA

Probable Cause	MS_F_SES
Definition	The provisioned threshold for the Multiplex Section Far End Unavailable Seconds parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

MS_N_BBE MS NearEnd Bgd Blk Error TCA

Probable Cause	MS_N_BBE
Definition	The provisioned threshold for the Multiplex Section Near End Background Block Errors parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

MS_N_ES MS NearEnd Error Sec TCA

Probable Cause	MS_N_ES
Definition	The provisioned threshold for the Multiplex Section Near End Errored Seconds parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

MS_N_SES MS NearEnd Svrly Error Sec TCA

Probable Cause	MS_N_SES
Definition	The provisioned threshold for the Multiplex Section Near End Severely Errored Seconds parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

MS_N_UAS MS NearEnd Unvail Sec TCA

Probable Cause	MS_N_ES
Definition	The provisioned threshold for the Multiplex Section Near End Unavailable Seconds parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

OPR-IN Optical Power Receive TCA

Probable Cause	OPR-IN
Definition	The current reading of the optical power meter received by the ingress optics (signal received from the client or network) is either above or below the expected operating range for the input port receiver. This range is based on the short reach (SR) receiver sensitivity standards for the OCH-2GC or OCH-10GC input ports.
Reporting Type	Standing
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

OPR-OUT Optical Power Receive TCA

Probable Cause	OPR-OUT
Definition	The current reading of the optical power meter received by the egress optics (signal received from the switch fabric) is either above or below the expected operating range for the input port receiver. The range for the OCH-2GC output port is based on the IR receiver sensitivity standards for the OCH-2GC or OCH-10GC input ports.
Reporting Type	Standing
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

OPT-IN Optical Power Transmit TCA

Probable Cause	OPT-IN
Definition	The current reading for the optical power transmitted by the ingress optics (signal transmitted towards the switch fabric) is outside the range established by the upper and lower threshold values. For an OCH-2GC input port laser, the expected operating range is $\pm 20\%$ of its beginning of life nominal value stored in the EEPROM. For an OCH-10GC input port laser, the corresponding range is $\pm 30\%$.
Reporting Type	Standing
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

OPT-OUT Optical Power Transmit TCA

Probable Cause	OPT-OUT
Definition	The current reading for the optical power transmitted by the egress optics (signal transmitted towards the client or network) is outside the range established by the upper and lower threshold values. For either the OCH-2GC or OCH-10GC input port lasers, the expected operating range is $\pm 20\%$ of its beginning of life nominal value stored in the EEPROM.
Reporting Type	Standing
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

RS_N_BBE RS NearEnd Bgd Blk Error TCA

Probable Cause	RS_N_BBE
Definition	The provisioned threshold for the Regenerator Section Near End Background Block Errors parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

RS_N_ES RS NearEnd Error Sec TCA

Probable Cause	RS_N_ES
Definition	The provisioned threshold for the Regenerator Section Near End Errored Seconds parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

RS_N_SES RS NearEnd Svrly Error Sec TCA

Probable Cause	RS_N_SES
Definition	The provisioned threshold for the Regenerator Section Near End Severely Errored Seconds parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

RS_N_UAS RS NearEnd Unavail Sec TCA

Probable Cause	RS_N_UAS
Definition	The provisioned threshold for the Regenerator Section Near End Unavailable Seconds parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

SES-S Svrly Errored Frame Sec Sect TCA

Probable Cause	SES-S
Definition	The provisioned threshold for the Severely Errored Seconds - Section parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET/SDH
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

SEFS-S Svrly Errored Frame Sec Sect TCA

Probable Cause	SEFS-S
Definition	The provisioned threshold for the Severely Errored Frame Seconds - Section, Near-End parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

SES-L Svrly Error Sec Line TCA

Probable Cause	SES-L
Definition	The provisioned threshold for the Severely Errored Seconds - Line parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

UAS-L Unavail Sec Line TCA

Probable Cause	UAS-L
Definition	The provisioned threshold for the Unavailable Seconds - Line parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

SES-LFE Svrly Error Sec Line FarEnd TCA

Probable Cause	SES-LFE
Definition	The provisioned threshold for the Severely Errored Seconds - Line Far End parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None

UAS-LFE Unavail Sec Line TCA

Probable Cause	UAS-LFE
Definition	The provisioned threshold for the Unavailable Seconds - Line FarEnd parameter has been crossed.
Reporting Type	Transient
Alarm Type	QoS
Type of AID Affected	Port
Interface Standard	SONET
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None



Security Alarm and Event Messages

SECBUFTHEX Intruder Alert Alarm

Probable Cause	SECBUFTHEX
Definition	An unauthorized login has been attempted.
Reporting Type	Transient
Alarm Type	SECU
Type of AID Affected	System
Interface Standard	Not applicable
Effect on Service	NSA
Alarm Level	NA
On-site Indicator: User Panel	No LEDs illuminated
On-site Indicators: Circuit Pack Faceplate	No LEDs illuminated
Default Alarm Level Provisionable via ASAP	For future use
Trouble-Clearing Task	None



TL1 Command Error Messages

EFON Equipage, Feature Option Not provided, ONNCFG=DISABLE

Definition	The feature is not enabled.
Problem or Cause	The ONN Configuration equipment parameter value was set to DISABLE.
Corrective Action	Enable the feature and enter the command again.
Applicable Command(s)	RTRV-PORT-LINK, ED-PORT-LINK

ENEQ Equipage, Not Equipped

Definition	The specified AID is unequipped.
Problem or Cause	The specified Access Identifier represents a shelf on which both shelf controllers are not equipped.
Corrective Action	Insert at least one shelf controller and enter the command again.
Applicable Command(s)	INIT-EQPT

ENEQ Equipage, Not Equipped

Definition	The specified AID is unequipped.
Problem or Cause	The specified Access Identifier represents a slot that is not equipped.
Corrective Action	Insert the circuit pack and enter the command again.
Applicable Command(s)	INIT-EQPT

ENEQ Equipage, Not Equipped

Definition	The specified AID is unequipped.
Problem or Cause	The specified port resides on a circuit pack that is not in its slot.
Corrective Action	Insert the circuit pack and enter the command again.
Applicable Command(s)	INIT-REG

ENEQ Equipage, Not Equipped

Definition	The specified DCC circuit pack is unequipped.
Problem or Cause	The specified DCC circuit pack Access Identifier represents a circuit pack that is not equipped.
Corrective Action	Insert the DCC circuit pack and enter the command again.
Applicable Command(s)	ED-ULSDCC-L3

ENEQ Equipage, Not Equipped

Definition	The slot associated with the specified port unit is unequipped.
Problem or Cause	The specified port unit Access Identifier represents a slot that is not equipped.
Corrective Action	Insert the port unit and enter the command again.
Applicable Command(s)	RLS-PROTNSW-MAN, RLS-PROTNSW-FRCD, OPR-PROTNSW-FRCD, OPR-PROTNSW-MAN

ENEQ Equipage, Not Equipped

Definition	The specified entity is not equipped.
Problem or Cause	The specified input port or output port could not be put in service because it was in the OOS-AU, UEQ state.
Corrective Action	Enter the command again when the input port or output port is equipped.
Applicable Command(s)	ED-rr

ENEQ Equipage, Not Equipped, eport_aid slot unequipped

Definition	The slot associated with the specified eport_aid is not equipped.
Problem or Cause	The specified eport Access Identifier parameter does not have an optical cross-connect circuit pack associated with it.
Corrective Action	Enter the command again with a valid eport_aid parameter.
Applicable Command(s)	CONN-TACC

ENEQ Equipage, Not Equipped, fport_aid slot unequipped

Definition	The slot associated with the specified fport_aid is not equipped.
Problem or Cause	The specified fport Access Identifier parameter does not have an optical cross-connect circuit pack associated with it.
Corrective Action	Enter the command again with a valid fport_aid parameter.
Applicable Command(s)	CONN-TACC

ENEQ Equipage, Not Equipped, in_aid unequipped

Definition	The specified in_aid is not equipped.
Problem or Cause	The specified port resides on a circuit pack that is not in its slot.
Corrective Action	Insert the circuit pack and enter the command again.
Applicable Command(s)	OPR-LPBK

ENEQ Equipage, Not Equipped, in_aid_1 unequipped

Definition	The slot associated with the specified in_aid_1 is not equipped.
Problem or Cause	The specified port resides on a circuit pack that is not in its slot.
Corrective Action	Insert the circuit pack and enter the command again.
Applicable Command(s)	ENT-CRS

ENEQ Equipage, Not Equipped, in_aid_2 unequipped

Definition	The slot associated with the specified in_aid_2 is not equipped.
Problem or Cause	The specified port resides on a circuit pack that is not in its slot.
Corrective Action	Insert the circuit pack and enter the command again.
Applicable Command(s)	ENT-CRS

ENEQ Equipage, Not Equipped, out_aid unequipped

Definition	The specified out_aid is not equipped.
Problem or Cause	The specified port resides on a circuit pack that is not in its slot.
Corrective Action	Insert the circuit pack and enter the command again.
Applicable Command(s)	OPR-LPBK

ENEQ Equipage, Not Equipped, out_aid_1 unequipped

Definition	The slot associated with the specified out_aid_1 port is not equipped.
Problem or Cause	The specified port resides on a circuit pack that is not in its slot.
Corrective Action	Insert the circuit pack and enter the command again.
Applicable Command(s)	ENT-CRS

ENEQ Equipage, Not Equipped, out_aid_2 unequipped

Definition	The slot associated with the specified out_aid_2 port is not equipped.
Problem or Cause	The specified port resides on a circuit pack that is not in its slot.
Corrective Action	Insert the circuit pack and enter the command again.
Applicable Command(s)	ENT-CRS

ENEQ Equipage, Not Equipped, port not equipped

Definition	The specified port is not equipped.
Problem or Cause	The specified port is provisioned but not equipped.

Corrective Action	Equip the port or specify another appropriate port and enter the command again.
Applicable Command(s)	ENT-CRS

ENEQ Equipage, Not Equipped, taport1 slot unequipped

Definition	The slot associated with specified taport1 is not equipped.
Problem or Cause	The specified Test Access Port to be used for monitoring an incoming signal that is being received at the eport during a MONE or MONEF test access session is associated with a slot that does not contain a circuit pack.
Corrective Action	Enter the command again with a valid taport1 parameter or equip the specified slot.
Applicable Command(s)	CONN-TACC

ENEQ Equipage, Not Equipped, taport2 slot unequipped

Definition	The slot associated with specified taport2 is not equipped.
Problem or Cause	The specified Test Access Port to be used for monitoring an incoming signal that is being received at the fport during a MONF or MONEF test access session is not associated with a slot that does not contain a circuit pack.
Corrective Action	Enter the command again with a valid taport2 parameter or equip the specified slot.
Applicable Command(s)	CONN-TACC

ICNV Input, Command Not Valid

Definition	The ACT-USER command cannot be issued during an already active session.
Problem or Cause	The command was issued on an already active TCP/IP connection.
Corrective Action	Do not issue this command if an active login session already exists.
Applicable Command(s)	ACT-USER

IDMS Input, Data Missing, none of the PARM parameter has a value

Definition	The PARM parameter does not have a value.
Problem or Cause	The PM Parameter had no value assigned to the PM, TH15, THDAY, or TCA parameter.
Corrective Action	Enter the command again with the correct values for the PARM parameter.
Applicable Command(s)	ED-PM-PROF

IDNC Input, Data Not Consistent, inconsistent aid and ID

Definition	The ID parameter was specified in error.
Problem or Cause	The command specified the ID parameter for a non-shelf AID.
Corrective Action	Enter the command again without specifying a value for the ID parameter.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNC Input, Data Not Consistent, inconsistent aid and OSPF

Definition	The values specified for the OSPF parameter is not consistent.
Problem or Cause	The CCN OSPF Domain Member Indicator parameter was specified when the AID parameter value was other than the following: • rip10-1-{1,2}-1 • rip100-1-{1,2}-1 • pmoch-1-{1,4}-{1,2}
Corrective Action	Enter the command again with the correct value for the AID and OSPF parameters.
Applicable Command(s)	ED-ULSDCN-L3

IDNC Input, Data Not Consistent, inconsistent aid and pst

Definition	The ED-EQPT command specified a value for the pst parameter for one of the following entities: • Optical Interface Shelf (OIS) • Switch Shelf (SWS) • High-Voltage Shelf (HVS) • System Controller Shelf (SCS) • Switch Interface Point (SWIP)
Problem or Cause	The Primary State parameter was specified in error.
Corrective Action	Enter the command again without specifying a value for the pst parameter.
Applicable Command(s)	ED-EQPT

IDNC Input, Data Not Consistent, inconsistent aid and STAT

Definition	The value specified for the aid parameter is not consistent with the value specified for the STAT parameter.
Problem or Cause	The CCN OSPF Domain Member Indicator parameter was specified when the AID parameter value was other than the following: • rip10-1-{1,2}-1 • rip100-1-{1,2}-1 • pmoch-1-{1,4}-{1,2}
Corrective Action	Enter the command again with the correct value for the AID and STAT parameters.
Applicable Command(s)	ED-ULSDCN-L3

IDNC Input, Data Not Consistent, inconsistent aid and sst

Definition	The command specified a value for the sst parameter for a non-Switch Interface Point entity.
Problem or Cause	The Secondary State parameter was specified in error.
Corrective Action	Enter the command again without specifying a value for the sst parameter.
Applicable Command(s)	ED-EQPT

IDNC Input, Data Not Consistent, inconsistent aid and SPARESWIP

Definition	The specified AID and SPARESWIP parameter values are not consistent.
Problem or Cause	The specified AID and Substitute Spare SWIP parameter values are incompatible. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for these parameters.
Corrective Action	Enter the command again with the correct values for the AID and SPARESWIP parameters.
Applicable Command(s)	ED-EQPT

IDNC Input, Data Not Consistent, inconsistent aid and SPARESWIP

Definition	The specified AID is incompatible with the SPARESWIP parameter.
Problem or Cause	The specified AID was other than for a SWIP with the SPARESWIP parameter specified.
Corrective Action	Enter the command again without specifying the SPARESWIP parameter.
Applicable Command(s)	ED-EQPT

IDNC Input, Data Not Consistent, inconsistent aid and SWIP

Definition	The specified AID and SWIP parameters are not consistent.
Problem or Cause	The command specified a range of AIDs, which is not allowed with any INSWIP0, INSWIP1, OUTSWIP0, or OUTSWIP1 parameters.
Corrective Action	Enter the command again without any INSWIP0, INSWIP1, OUTSWIP0, or OUTSWIP1 parameters specified.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent aid and SWIP block

Definition	The specified AID and SWIP Block parameters are not consistent.
Problem or Cause	The specified AID was other than for an OIS with any SWIP blocks parameters specified.
Corrective Action	Enter the command again without specifying any SWIP block parameters.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNC Input, Data Not Consistent, inconsistent aid and system parameters

Definition	The value specified for the aid parameter is not consistent with the specified system parameter.
Problem or Cause	The command specified a non-system entity with any of the following parameters specified: • AUTODISC • AUTOVINT • AUTOVTIME • DISCTXTMR • IFDF • ISTDDFLT • ONNCFG • RETRYCTR • RETRXTMR • SYSCFG • USAGEDFLT • VRECVTMR • VRESPTMR
Corrective Action	Enter the command again with the correct value for the aid or without any system parameters.
Applicable Command(s)	ED-EQPT

IDNC Input, Data Not Consistent, inconsistent AID values

Definition	The command using an input or output AID that includes the value all did not have a corresponding blank value for the other AID.
Problem or Cause	The RTRV-CRS command specified a value of all for one AID and specified a value for the other AID.
Corrective Action	Enter the command again with the correct AID value.
Applicable Command(s)	RTRV-CRS

IDNC Input, Data Not Consistent, inconsistent ALMDELEQPT > CLRDELEQPT

Definition	The value specified for the ALMDELEQPT parameter is greater than the value specified for the CLRDELEQPT parameter.
Problem or Cause	The value entered for the Alarm Delay Equipment parameter is not allowed with the current value of the Clear Delay Equipment.
Corrective Action	Determine the current value of the CLRDELEQPT parameter. Enter the command with the correct value for the ALMDELEQPT parameter.
Applicable Command(s)	SET-ATTR-ALM

IDNC Input, Data Not Consistent, inconsistent ALMDELEQPT > CLRDELFCLT

Definition	The value specified for the ALMDELEQPT parameter is greater than the value specified for the CLRDELFCLT parameter.
Problem or Cause	The value entered for the Alarm Delay Equipment parameter is not allowed with the current value of the Clear Delay Facility.
Corrective Action	Determine the current value of the CLRDELFCLT parameter. Enter the command with the correct value for the ALMDELFCLT parameter.
Applicable Command(s)	SET-ATTR-ALM

IDNC Input, Data Not Consistent, cct value

Definition	The specified cct value differs from the cct value of the cross connection to be deleted.
Problem or Cause	The specified Cross-Connection Topology parameter was different from the current value contained in the cross-connection database. Valid values are 1WAY or 2WAY.
Corrective Action	Determine the correct value of cct for the cross-connection to be deleted and enter the command again.
Applicable Command(s)	DLT-CRS

IDNC Input, Data Not Consistent, inconsistent cct and AID values

Definition	The values specified for the cct parameter and AIDs are not consistent.
Problem or Cause	The value for the Cross-Connection Topology parameter was specified as 1WAY with a Validation Check parameter of BRDG without specifying the required two AID values, one input port and one output port or, the value for the Cross-Connection Topology parameter was specified as 1WAY with a Validation Check parameter of MERG without specifying the required number of AID values. Either 2 AID values, one input port AID and one output port AID, or 3 AID values, two different input port AID values and one output port AID value, are required or, the value for the Cross-Connection Topology parameter was specified as 2WAY without specifying the required four AID values.
Corrective Action	Determine the correct values for the cct and valck parameters, as well as the required number of AID values. Enter the command again.
Applicable Command(s)	DLT-CRS, ENT-CRS

IDNC Input, Data Not Consistent, default profile specified

Definition	The value specified for the pftype parameter is not consistent.
Problem or Cause	The command specified a default profile. Default profiles cannot be deleted.
Corrective Action	Enter the command again with the correct value for the pftype parameter.
Applicable Command(s)	DLT-PM-PROF

IDNC Input, Data Not Consistent, DefaultS profile name change

Definition	The DefaultS profile name cannot be changed.
Problem or Cause	The system default profile names, DefaultS and DefaultM, cannot be changed.
Corrective Action	None.
Applicable Command(s)	ED-PM-PROF

IDNC Input, Data Not Consistent, inconsistent dir and AISLSW

Definition	The AISLSW parameter is specified with a dir parameter value of IN.
Problem or Cause	The AIS-L Protection Switch enable parameter was specified when the Direction parameter value was IN.
Corrective Action	Enter the command again with a dir parameter of OUT or BOTH.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and AUTOLOCK

Definition	The AUTOLOCK parameter is not allowed when the dir parameter value is IN.
Problem or Cause	The Output Port Selector Autolock parameter was specified when the Direction parameter value was IN.
Corrective Action	Enter the command again with a dir parameter of OUT or BOTH.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and AUTOMODE

Definition	The AUTOMODE parameter is not allowed when the dir parameter value is OUT.
Problem or Cause	The Auto-Enable Port Alarm Monitoring parameter was specified when the Direction parameter value was OUT.
Corrective Action	Enter the command again with a dir parameter of IN or BOTH.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and BERSW

Definition	The BERSW parameter was specified with a dir parameter of IN.
Problem or Cause	The BER Protection Switch enable parameter was specified when the Direction parameter was IN.
Corrective Action	Enter the command again with a dir parameter of OUT or BOTH.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and EBERSW

Definition	The EBERSW parameter was specified with a dir parameter of IN.
Problem or Cause	The EBER Protection Switch enable parameter was specified when the Direction parameter was IN.
Corrective Action	Ensure that the dir parameter value is OUT or BOTH and enter the command again.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and INSWIP

Definition	The INSWIP parameter was specified with a dir parameter of OUT.
Problem or Cause	The ED-rr command for an output port specified the INSWIP0 or the INSWIP1 parameter.
Corrective Action	Enter the command again without the INSWIP0 or INSWIP1 parameter.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and KA

Definition	The values specified for the dir and KA parameters are not consistent.
Problem or Cause	The Keep Alive parameter was specified when the Direction parameter value was IN.
Corrective Action	Ensure that the dir parameter value is OUT or BOTH and enter the command again.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and KAALM

Definition	The values specified for the dir and KAALM parameters are not consistent.
Problem or Cause	The Keep Alive Alarm parameter was specified when the Direction parameter value was OUT.
Corrective Action	Enter the command again with the dir parameter equal to IN or BOTH.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and OAPWR

Definition	The OAPWR parameter was specified with a dir parameter of OUT.
Problem or Cause	The Optical Amplifier Output Power parameter was specified when the Direction parameter was OUT.
Corrective Action	Ensure that the Directory parameter equal to IN or BOTH and enter the command again.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and OUTSWIP

Definition	The OUTSWIP parameter was specified with a dir parameter of IN.
Problem or Cause	The ED-rr command for an input port specified the OUTSWIP0 or the OUTSWIP1 parameter.
Corrective Action	Enter the command again without the OUTSWIP0 or OUTSWIP1 parameter.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and pstin

Definition	The pstin parameter is not allowed when the value specified for the dir parameter is OUT.
Problem or Cause	The pstin parameter was specified with a dir of OUT.
Corrective Action	Enter the command again with a dir parameter of IN or BOTH.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and pstout

Definition	The pstout parameter is not allowed when the value specified for the dir parameter is IN.
Problem or Cause	The pstout parameter was specified with a dir of IN.
Corrective Action	Enter the command again with a dir parameter of OUT or BOTH.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and PWRMDF

Definition	The PWRMDF parameter is not allowed when the dir parameter is OUT.
Problem or Cause	The PWRMDF parameter was specified with a dir of OUT.
Corrective Action	Enter the command again with a dir parameter of IN or BOTH.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent dir and type

Definition	The values specified for the dir and type parameters are not consistent.
Problem or Cause	The Direction parameter was specified as OUT when the Port Type parameter was specified as OCHA13 OR OCHA15.
Corrective Action	Enter the command again with a dir parameter of IN or BOTH.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent from and class

Definition	The values specified for the from and class parameters are not consistent.
Problem or Cause	The From Memory Type parameter value was specified as CIT or EMS and the Class parameter value was other than RESTORE. Alternately, the FMT parameter value was specified as PRI and the Class parameter value was other than BACKUP.
Corrective Action	Enter the command again with the correct value for the from and class parameters.
Applicable Command(s)	CPY-MEM

IDNC Input, Data Not Consistent, inconsistent from and datatype

Definition	The values specified for the from and datatype parameters are not consistent.
Problem or Cause	The value specified for the Source Location parameter was PRI and the value specified for the Data Type parameter was CAL.
Corrective Action	Enter the command again with the correct value for the from and datatype parameters.
Applicable Command(s)	CPY-NVM

IDNC Input, Data Not Consistent, inconsistent from and to

Definition	The values specified for the from and to parameters are not consistent.
Problem or Cause	The Source location and Destination location parameters were specified with the same values.
Corrective Action	Enter the command again with the correct value for the from and to parameter.
Applicable Command(s)	CPY-NVM

IDNC Input, Data Not Consistent, inconsistent from and to

Definition	The values specified for the from and to parameters are not valid.
Problem or Cause	The From Memory Type parameter as PRI and the To Memory Type parameter was specified other than CIT or EMS. Alternately, the From Memory Type parameter value was specified as CIT or EMS and the To Memory Type parameter value was other than PRI.
Corrective Action	Enter the command again with the correct value for the from and to parameters.
Applicable Command(s)	CPY-MEM

IDNC Input, Data Not Consistent, inconsistent from/src

Definition	The values specified for the from and src parameters are not consistent.
Problem or Cause	The From Memory Type parameter was specified as PRI and the Source parameter value was not blank. Alternately, the From Memory Type parameter was specified as EIT or EMS and the Source parameter value was blank.
Corrective Action	Enter the command again with the correct from and src parameter values.
Applicable Command(s)	CPY-MEM

IDNC Input, Data Not Consistent, inconsistent IFMT and IOPT

Definition	The values specified for the IFMT and IOPT parameters are not consistent.
Problem or Cause	The value for the Interface Format parameter was incompatible with the value specified for the Interface Optics parameter. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for these parameters.
Corrective Action	Determine the correct values for the IFMT and IOPT parameters and enter the command again.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent IFMT parameter

Definition	The values specified for the IFMT parameter is not consistent.
Problem or Cause	The value for the Interface Format parameter was specified other than OC48/STM16 or OC192/STM64.
Corrective Action	Ensure that the IFMT parameter is correct and enter the command again.
Applicable Command(s)	ED-PORT-LINK

IDNC Input, Data Not Consistent, inconsistent montm and tmper

Definition	The values specified for the montm and tmper parameters are not consistent.
Problem or Cause	The Monitored Time and Time Period parameter values were incompatible. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for these parameters.
Corrective Action	Enter the command again with the correct value for the montm and tmper parameters.
Applicable Command(s)	RTRV-PM

IDNC Input, Data Not Consistent, inconsistent mondat, tmper and montm

Definition	The values specified for the mondat, tmper and montm parameters are not consistent.
Problem or Cause	The Monitored Date, Time Period and Monitored Time parameter values were incompatible. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for these parameters.
Corrective Action	Enter the command again with the correct value for the mondat, tmper, and montm parameters.
Applicable Command(s)	RTRV-PM

IDNC Input, Data Not Consistent, inconsistent montype and locn

Definition	The values specified for the montype and locn parameters are not consistent.
Problem or Cause	The Monitored Type and PM Monitoring Location parameter values were incompatible. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for these parameters.
Corrective Action	Enter the command again with the correct value for the montype and locn parameter.
Applicable Command(s)	RTRV-PM

IDNC Input, Data Not Consistent, inconsistent pack type and shelf

Definition	The value specified for the type parameter is not consistent with the type of shelf.
Problem or Cause	The command specified an optical cross-connection interface slot on an OIS that had a shelf type parameter value that was incompatible with the circuit type parameter value. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for these parameters.
Corrective Action	Enter the command again with the correct value for the Circuit Pack Type parameter.
Applicable Command(s)	ENT-EQPT

IDNC Input, Data Not Consistent, inconsistent parameter and DISCMODE

Definition	The values specified for the DISCMODE and a specified parameter are not consistent.
Problem or Cause	The request to modify an IPADDR and/or NAID failed because the Discovery Mode parameter value was other than ENABLE.
Corrective Action	Ensure that the value for the DISCMODE parameter is ENABLE and enter the command again.
Applicable Command(s)	ED-PORT-LINK

IDNC Input, Data Not Consistent, inconsistent port and montype

Definition	The values specified for the port or montype parameters are not consistent.
Problem or Cause	The port and Monitored Type parameter values were incompatible. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for these parameters.
Corrective Action	Enter the command again with the correct value for the port or Monitored parameter and the type of port.
Applicable Command(s)	RTRV-PM

IDNC Input, Data Not Consistent, inconsistent SRLG

Definition	The values specified for SRLG parameters are not consistent.
Problem or Cause	The command specified the Shared Link Risk Group parameters with the same value. They must be unique.
Corrective Action	Enter the command again with the correct value for the SRLG parameters.
Applicable Command(s)	ED-EQPT

IDNC Input, Data Not Consistent, inconsistent startdate and starttime

Definition	The values specified for the startdate and starttime parameters are not consistent.
Problem or Cause	The Start Date parameter was specified without the Start Time parameter or the Start Time parameter was specified without the Start Date parameter
Corrective Action	Enter the command again specifying the startdate and starttime parameters.
Applicable Command(s)	RTRV-LOG-USER, RTRV-LOG-ALM, RTRV-LOG-PROTNSW, RTRV-LOG-SECU, RTRV-LOG-NTFCN

IDNC Input, Data Not Consistent, inconsistent SWIP block and OIS type

Definition	The SWIP block parameter and OIS type are not consistent.
Problem or Cause	The specified AID for a 2G-type OIS, which is not allowed with any of the following parameters specified: • SIDE0BLKy • SIDE1BLKy where y equals {5-8}
Corrective Action	Enter the command again without specifying any of the above parameters.
Applicable Command(s)	ED-EQPT

IDNC Input, Data Not Consistent, inconsistent SWIP block and OIS type

Definition	The SWIP block parameter and OIS type are not consistent.
Problem or Cause	The specified AID for a MX-type OIS is not allowed with any of the following parameters: • SIDE0BLKy • SIDE1BLKy where y equals {4-8}
Corrective Action	Enter the command again without specifying any of the above parameters.
Applicable Command(s)	ED-EQPT

IDNC Input, Data Not Consistent, inconsistent SWIP block and OIS type

Definition	The SWIP block parameter specified and the OIS type are not consistent.
Problem or Cause	The specified AID was for a 10G-type OIS, which is not allowed with any of the following assigned SWIP Block parameters: • SIDE0BLK3 • SIDE0BLK4 • SIDE0BLK5 • SIDE0BLK6 • SIDE0BLK7 • SIDE0BLK8 • SIDE1BLK3 • SIDE1BLK4 • SIDE1BLK5 • SIDE1BLK6 • SIDE1BLK7 • SIDE1BLK8
Corrective Action	Enter the command again without specifying any of the parameters listed above.
Applicable Command(s)	ED-EQPT

IDNC Input, Data Not Consistent, inconsistent SWIP block assignments

Definition	The specified values for the SWIP blocks are not consistent.
Problem or Cause	The command attempted to provision two or more SWIP block parameters with the same value.
Corrective Action	Determine the correct values for the SWIP block parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNC Input, Data Not Consistent, inconsistent test mode and AID values

Definition	The values specified for a number of AIDs are not consistent with the value of the test mode parameter.
Problem or Cause	The number of AID values specified with the Test Mode parameter value was other than the following: • when the Test Mode parameter is MONE or MONF, only the taport1 parameter is required. • when the Test Mode parameter is MONEF, both taport1 and taport2 parameter are required.
Corrective Action	Enter the command again with the correct value for the test mode parameters and the correct number of aids.
Applicable Command(s)	DISC-TACC

IDNC Input, Data Not Consistent, inconsistent to and dst

Definition	The values specified for the to and dst parameters are not valid.
Problem or Cause	The command specified a to Memory Type parameter as PRI and the Destination parameter was not blank. Alternately, the to Memory Type parameter value was specified as CIT or EMS and the Destination parameter is blank.
Corrective Action	Enter the command again with the correct value for the to and dst parameter.
Applicable Command(s)	CPY-MEM

IDNC Input, Data Not Consistent, inconsistent tstmde and AID values

Definition	The number of AID values specified are inconsistent with the tstmde parameter value.
Problem or Cause	The number of AID values specified with the Test Mode parameter value was other than the following: • When the tstmde parameter is MONE, eport_aid and taport1 are required. • When the tstmde parameter is MONEF, fport_aid and taport1 are required. • When the tstmde parameter is MONEF, eport_aid, taport1, fport_aid and taport2 are required.
Corrective Action	Enter the command again with the correct number of AID values.
Applicable Command(s)	CONN-TACC

IDNC Input, Data Not Consistent, inconsistent tstmdc and signal injection

Definition	The value specified for the tstmdc parameter is not consistent with the signal injection instructions.
Problem or Cause	The command specified signal injection instructions and a Test Mode parameter value that were not consistent. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for these parameters.
Corrective Action	Enter the command again with the correct test mode value.
Applicable Command(s)	CONN-TACC

IDNC Input, Data Not Consistent, inconsistent type and actual port type

Definition	The specified type value is not consistent with the actual port type.
Problem or Cause	The specified type value did not agree with the actual port type
Corrective Action	Enter the command again with the appropriate value for the type parameter.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, inconsistent type and SWIP block

Definition	The specified SWIP block parameter and the OIS type are not consistent.
Problem or Cause	The specified AID was for a 10G-type OIS, which is not allowed with any of the following parameters: • SIDE0BLK3 • SIDE0BLK4 • SIDE0BLK5 • SIDE0BLK6 • SIDE0BLK7 • SIDE0BLK8 • SIDE1BLK3 • SIDE1BLK4 • SIDE1BLK5 • SIDE1BLK6 • SIDE1BLK7 • SIDE1BLK8 Alternately, the specified AID was for a 2G-type OIS, which is not allowed with any of the following parameters: • SIDE0BLK5 • SIDE0BLK6 • SIDE0BLK7 • SIDE0BLK8 • SIDE1BLK5 • SIDE1BLK6 • SIDE1BLK7 • SIDE1BLK8 Alternately, the specified AID was for a MX-type OIS, which is not allowed with any of the following parameters: • SIDE0BLK4 • SIDE0BLK5 • SIDE0BLK6 • SIDE0BLK7 • SIDE0BLK8 • SIDE1BLK4 • SIDE1BLK5 • SIDE1BLK6 • SIDE1BLK7 • SIDE1BLK8

Corrective Action	Enter the command again without specifying any of the parameters listed above.
Applicable Command(s)	ENT-EQPT

IDNC Input, Data Not Consistent, inconsistent USAGE parameter

Definition	The value specified for the USAGE is not consistent.
Problem or Cause	The value specified for the AID parameter was incompatible with the value specified for the USAGE parameter. Values of TEST or CLIENT are not allowed.
Corrective Action	Enter the command again with the correct value for the USAGE and AID parameters.
Applicable Command(s)	ED-PORT-LINK

IDNC Input, Data Not Consistent, inconsistent USAGE and port type

Definition	The values specified for the USAGE and port type parameters are not consistent.
Problem or Cause	The Port Usage parameter was specified as LINK_PROBE for an OCHT, OCHA13, or OCHA15-type port.
Corrective Action	Enter the command again with the correct value for the USAGE and port type parameters.
Applicable Command(s)	ED-rr

IDNC Input, Data Not Consistent, VRESPTMR < VRECVTMR

Definition	The values specified for the VRESPTMR and VRECVTMR parameters are not consistent.
Problem or Cause	The value specified for the Verification Response Timer is less than the value specified for the Verification Receive Timer. This is not allowed.
Corrective Action	Enter the command again with the correct value for the VRESPTMR and VRECVTMR parameter.
Applicable Command(s)	ED-EQPT

IDNC Input, Data Not Consistent, inconsistent valck parameter use

Definition	The value specified for the valck parameter is not consistent with input port AID.
Problem or Cause	The Validation Check parameter value was BRDG or BRMG but the specified input port AID had no existing cross-connection leg. Alternately, the Validation Check parameter value was MERG or BRMG but the specified output port AID had no existing cross-connection leg.
Corrective Action	Determine the correct valck parameter value or the correct value for the input port or output port AID and enter the command again.
Applicable Command(s)	ENT-CRS

IDNC Input, Data Not Consistent, not unique IPADDR AND NAID

Definition	The values specified for the IPADDR and NAID parameters are not unique.
Problem or Cause	The RC IP Address and Neighbor Access Identifier parameters values were not unique.
Corrective Action	Determine the correct value for the IPADDR and NAID parameters and enter the command again.
Applicable Command(s)	ED-PORT-LINK

IDNV Input, Data Not Valid

Definition	The parameter is syntactically incorrect.
Problem or Cause	The command specified one or more input parameter values that did not belong to the set of allowable parameter values for that specific parameter.
Corrective Action	Determine the correct parameter values and enter the command again.
Applicable Command(s)	CANC-USER-SECU, ENT-PM-PROF, INIT-REG

IDNV Input, Data Not Valid, invalid AGE

Definition	The value specified for the AGE parameter is invalid.
Problem or Cause	The Lockout Aging Period parameter was specified other than 1-999.
Corrective Action	Enter the command again specifying an AGE parameter of 1 to 999 minutes.
Applicable Command(s)	ED-NE-SECU

IDNV Input, Data Not Valid, invalid AISLSW

Definition	The value specified for the AISLSW parameter is not valid.
Problem or Cause	The AIS-L Protection Switch enable value was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with a valid value.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid ALMDELEQPT

Definition	The value specified for the ALMDELEQPT parameter is not valid.
Problem or Cause	The Alarm Delay Equipment parameter was specified other than 0, 11-60 and greater than or equal to the Clear Delay Facility parameter.
Corrective Action	Determine the correct value for the ALMDELEQPT parameter and enter the command again.
Applicable Command(s)	SET-ATTR-ALM

IDNV Input, Data Not Valid, invalid ALMDELFCLT

Definition	The value specified for the ALMDELFCLT parameter is not valid.
Problem or Cause	The Alarm Delay Facility parameter was specified other than 0-60.
Corrective Action	Determine the correct value for the ALMDELFCLT parameter and enter the command again.
Applicable Command(s)	SET-ATTR-ALM

IDNV Input, Data Not Valid, invalid ALSO

Definition	The value specified for the ALSO parameter is not valid.
Problem or Cause	The Automatic Laser Shut-off parameter was specified other than ENABLE or DISABLE.
Corrective Action	Determine the correct value for the ALSO parameter and enter the command again.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid ALW_LOGIN

Definition	The ALW_LOGIN parameter specified is not valid.
Problem or Cause	The Allow Login parameter was specified other than YES.
Corrective Action	Enter the command again with a ALW_LOGIN parameter of YES.
Applicable Command(s)	ED-USER-SECU

IDNV Input, Data Not Valid, invalid amount

Definition	The value specified for the amount parameter is not valid.
Problem or Cause	The amount parameter was specified other than ALL.
Corrective Action	Enter the command again with an amount parameter of ALL.
Applicable Command(s)	RTRV-PRMTR-SFTWR, RTRV-PRMTR-DATA

IDNV Input, Data Not Valid, invalid AUTODISC

Definition	The value specified for the AUTODISC parameter is not valid.
Problem or Cause	The Automatic Port Neighbor Discovery and Link Verification Process Enable parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with the correct value for the AUTODISC parameter.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid AUTOLOCK

Definition	The value specified for the AUTOLOCK parameter is not valid.
Problem or Cause	The Output Port Autolock parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with the correct value for the AUTOLOCK parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid AUTOMODE

Definition	The value specified for the AUTOMODE parameter is not valid.
Problem or Cause	The Auto-Enable Port Alarm Monitoring parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with the correct value for the AUTOMODE and dir parameter.
Applicable Command(s)	ED-rr

IDNV Input, invalid AUTOVINT

Definition	The value specified for the AUTOVINT parameter is not valid.
Problem or Cause	The command specified an Automatic Link Verification Interval parameter other than 1, 2, 3, 4, 6, 8, 12, or 24.
Corrective Action	Enter the command again with the correct value for the AUTOVINT parameter.
Applicable Command(s)	ED-EQPT

IDNV Input, invalid AUTOVTIME

Definition	The value specified for the AUTOVTIME parameter is not valid.
Problem or Cause	The command specified an Automatic Link Verification Start Time parameter other than 0-23.
Corrective Action	Enter the command again with the correct value for the AUTOVTIME parameter.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid BERSW

Definition	The value specified for the BERSW parameter is not valid.
Problem or Cause	The BER Protection Switch enable parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with a dir parameter of IN and the correct value for the BER Protection Switch enable parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, Invalid class

Definition	The value specified for the class parameter is not valid.
Problem or Cause	The command specified for the Class parameter was other than BACKUP, RESTORE, or DOWNLOAD.
Corrective Action	Enter the command again with a valid class parameter.
Applicable Command(s)	CPY-MEM

IDNV Input, Data Not Valid, invalid ccnum

Definition	The specified ccnum parameter was not valid.
Problem or Cause	The Cross-Connect Number parameter was specified as a non-numerical string or a number exceeding 6 digits.
Corrective Action	Enter the command again with the correct value for the ccnum parameter.
Applicable Command(s)	ENT-CRS

IDNV Input, Data Not Valid, invalid cct

Definition	The specified cct parameter was not valid.
Problem or Cause	The Cross-Connect Topology was specified other than 1WAY or 2WAY.
Corrective Action	Determine the correct value for the cct parameter and enter the command again.
Applicable Command(s)	DLT-CRS, ENT-CRS

IDNV Input, Data Not Valid, invalid CLRDELEQPT

Definition	The value specified for the CLRDELEQPT parameter is not valid.
Problem or Cause	The Clear Delay Facility parameter was specified other than 0-60.
Corrective Action	Determine the correct value for the CLRDELEQPT parameter and enter the command again.
Applicable Command(s)	SET-ATTR-ALM

IDNV Input, Data Not Valid, invalid CLRDELFCLT

Definition	The value specified for the CLRDELFCLT parameter is not valid.
Problem or Cause	The Clear Delay Facility parameter was specified other than 0-60.
Corrective Action	Determine the correct value for the CLRDELFCLT parameter and enter the command again.
Applicable Command(s)	SET-ATTR-ALM

IDNV Input, Data Not Valid, invalid condtype

Definition	The value specified for the condtype parameter is not valid.
Problem or Cause	The Condition Type parameter was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct value for the condtype parameter and enter the command again.
Applicable Command(s)	RTRV-ALM, RTRV-COND

IDNV Input, Data Not Valid, invalid COST

Definition	The specified value for the COST parameter is not valid.
Problem or Cause	The Administrative Cost parameter was specified other than 1-255.
Corrective Action	Enter the command again with the correct value for the COST parameter.
Applicable Command(s)	ED-PORT-LINK

IDNV Input, Data Not Valid, invalid datatype

Definition	The value specified for the datatype parameter is not valid.
Problem or Cause	The Data Type parameter was specified other than DATA, SFTWR, ALL, or CAL.
Corrective Action	Determine the correct value for the datatype parameter and enter the command again.
Applicable Command(s)	CPY-NVM

IDNV Input, Data Not Valid, invalid date

Definition	The value specified for the date parameter is not valid.
Problem or Cause	The Date parameter was specified other than YY-MM-DD where YY=00-99, MM=01-12, DD=01-31, and subject to calendar rules.
Corrective Action	Determine the correct value for the date parameter and enter the command again.
Applicable Command(s)	ED-DAT

IDNV Input, Data Not Valid, invalid DEXCTHR

Definition	The value specified for the DEXCTHR parameter is not valid.
Problem or Cause	The Excessive Degrade Threshold parameter was specified other than the following: • -3 • -4 • -5
Corrective Action	Determine the correct value for the DEXCTHR parameter and enter the command again.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid DEGTHR

Definition	The value specified for the DEGTHR parameter is not valid.
Problem or Cause	The Degrade Threshold parameter was specified other than the following: • -5 • -6 • -7 • -8 • -9
Corrective Action	Determine the correct value for the DEGTHR parameter and enter the command again.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid dest

Definition	The value specified for the dest parameter is not valid.
Problem or Cause	The Destination parameter was specified other than 1 or 0.
Corrective Action	Determine the correct value for the dest parameter and enter the command again.
Applicable Command(s)	OPR-PROTNSW-FRCD, OPR-PROTNSW-MAN

IDNV Input, Data Not Valid, invalid dst

Definition	The value specified for the dst parameter is not valid.
Problem or Cause	The command specified a Destination parameter without enclosing it in quotation marks.
Corrective Action	Enter the command again with quotation marks enclosing the dst parameter.
Applicable Command(s)	CPY-MEM

IDNV Input, Data Not Valid, invalid dir

Definition	The specified dir parameter is not valid.
Problem or Cause	The Direction parameter was specified with a value other than IN, OUT, or BOTH.
Corrective Action	Determine the correct value of the dir parameter and enter the command again.
Applicable Command(s)	ED-rr, ED-PORT-LINK, ED-PORT-LINK, RTRV-rr, RTRV-PORT-LINK

IDNV Input, Data Not Valid, invalid dirn

Definition	The specified dirn parameter is not valid.
Problem or Cause	The Direction of Monitoring parameter was specified with a value other than IN, OUT, or BOTH.
Corrective Action	Determine the correct value of the dirn parameter and enter the command again.
Applicable Command(s)	RTRV-PM, INIT-REG

IDNV Input, invalid DISCMODE

Definition	The value specified for the DISCMODE parameter is not valid.
Problem or Cause	The Discovery Mode parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with the correct value for the DISCMODE parameter.
Applicable Command(s)	ED-PORT-LINK

IDNV Input, invalid DISCTXMR

Definition	The value specified for the DISCTXMR parameter is not valid.
Problem or Cause	The Discovery Signal Transmit Timer parameter was specified other than 1-60.
Corrective Action	Enter the command again with the correct value for the DISCTXMR parameter.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid EBERSW

Definition	The value specified for the EBERSW parameter is not valid.
Problem or Cause	The EBER Protection Switch enable parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with the correct value for the EBER Protection Switch enable parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid from

Definition	The value specified for the from parameter is not valid.
Problem or Cause	The command specified a From Memory Type parameter other than CIT, EMS, or PRI.
Corrective Action	Enter the command again with the correct value for the from parameter.
Applicable Command(s)	CPY-MEM

IDNV Input, Data Not Valid, invalid eport_aid

Definition	The specified value for the eport_aid parameter is not valid.
Problem or Cause	The Eport Access Identifier parameter represents the eport to be monitored. This parameter was specified other than the following: - For ports on a LambdaRouter[™] AOS 128—och-{1-4}-{1-32}-{1-4} - For ports on a LambdaRouter[™] AOS 256—och-{1-7}-{1-32}-{1-4}
Corrective Action	Determine the correct value for the eport_aid parameter and enter the command again.
Applicable Command(s)	CONN-TACC

IDNV Input, Data Not Valid, invalid fport_aid

Definition	The specified value for the fport_aid parameter is not valid.
Problem or Cause	The Fport Access Identifier parameter represents the fport to be monitored. This parameter was specified other than the following: - For ports on a LambdaRouterTM AOS 128—och-{1-4}-{1-32}-{1-4} - For ports on a LambdaRouterTM AOS 256—och-{1-7}-{1-32}-{1-4}
Corrective Action	Determine the correct value for the fport_aid parameter and enter the command again.
Applicable Command(s)	CONN-TACC

IDNV Input, Data Not Valid, invalid from

Definition	The value specified for the from parameter is not valid.
Problem or Cause	The Source Location parameter value was other than ACTV or SEC.
Corrective Action	Enter the command again with the correct value for the from parameter.
Applicable Command(s)	CPY-NVM

IDNV Input, Data Not Valid, Invalid ftpipaddr

Definition	The value specified for the ftpipaddr parameter is not valid.
Problem or Cause	The command specified an FTP Internet Protocol Address parameter other than www.xxx.yyy.zzz, where www = 0-255, xxx = 0-255, yyy = 0-255, zzz = 0-255.
Corrective Action	Enter the command again with the correct ftpipaddr parameter.
Applicable Command(s)	CPY-MEM

IDNV Input, Data Not Valid, Invalid ftpuserid

Definition	The value specified for the ftpuserid parameter is not valid.
Problem or Cause	The command specified an FTP userid parameter incorrectly. FTP User Name must be an alphanumeric string of 1 to 10 characters which has been previously provisioned as a valid login ID in the network element.
Corrective Action	Enter the command again with the correct ftpuserid parameter.
Applicable Command(s)	CPY-MEM

IDNV Input, Data Not Valid, invalid ICOLOSS

Definition	The value specified for the ICOLOSS parameter is not valid.
Problem or Cause	The Ingress Central Office Loss parameter was specified incorrectly or was specified other than 0, 1, 2, or 3.
Corrective Action	Enter the command again with the correct value for the ICOLOSS parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid ID

Definition	The specified value for the ID parameter is not valid.
Problem or Cause	The value entered for the Identifier parameter was specified other than an alphanumeric string up to 20 characters in length.
Corrective Action	Enter the command again with the correct value for the ID parameter.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid IFDF

Definition	The specified value for the IFDF parameter is not valid.
Problem or Cause	The Interface Format Default parameter was specified other than one of the following: • OC192/STM64 • OC48/STM16 • OC768/STM256 • GBELX • HSBB • OTHER
Corrective Action	Enter the command again with a valid value for the IFDF parameter.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid IFMT

Definition	The specified value for the IFMT parameter is not valid.
Problem or Cause	The Interface Format parameter was specified other than one of the following: • OC192/STM64 • OC48/STM16 • OC768/STM256 • GBELX • HSB • OTHER
Corrective Action	Enter the command again with a valid value for the IFMT parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid injt_sige

Definition	The specified value for the injt_sige parameter is not valid.
Problem or Cause	The Eport Injected Signal Type parameter was specified other than 0,1, or NA.
Corrective Action	Enter the command again with a valid value for the injt_sige parameter.
Applicable Command(s)	CONN-TACC

IDNV Input, Data Not Valid, invalid injt_sigf

Definition	The specified value for the injt_sigf parameter is not valid.
Problem or Cause	The Fport Injected Signal Type parameter was specified other than 0,1, or NA.
Corrective Action	Enter the command again with a valid value for the injt_sigf parameter.
Applicable Command(s)	CONN-TACC

IDNV Input, Data Not Valid, invalid INSWIP0

Definition	The specified value for the INSWIP0 parameter is not valid.
Problem or Cause	The Input SWIP on Fabric Side 0 was specified incorrectly. Refer to LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Enter the command again with a valid value for the INSWIP0 parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid INSWIP1

Definition	The specified value for the INSWIP1 parameter is not valid.
Problem or Cause	The Input SWIP on Fabric Side 1 was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Enter the command again with a valid value for the INSWIP1 parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid INTRVL

Definition	The specified value for the INTRVL parameter is not valid.
Problem or Cause	The Lockout Period parameter was specified other than 2-99.
Corrective Action	Determine the correct value for INTRVL parameter and enter the command again.
Applicable Command(s)	ED-NE-SECU

IDNV Input, Data Not Valid, invalid IOPT

Definition	The specified value for the IOPT parameter is not valid.
Problem or Cause	The Interface Optics parameter was specified other than one of the following: • SR • IR • LR • VSR600-2M1 • VSR600-2M2 • VSR600-2R1 • VSR2000-2L2 • VSR2000-2R1 • OTHER • LAMBDAXTREME
Corrective Action	Enter the command again with a valid value for the IOPT parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid IPADDR

Definition	The specified value for the IPADDR parameter is not valid.
Problem or Cause	The RC IP Address parameter is the address of the optical cross-connect that is a neighbor to the port specified in the AID parameter. This parameter is allowed only in combination with the NAID parameter.
Corrective Action	Enter the command again with the correct value for the IPADDR parameter.
Applicable Command(s)	ED-PORT-LINK

IDNV Input, Data Not Valid, invalid IP_ADDR

Definition	The specified value for the IP_ADDR parameter is not valid.
Problem or Cause	The IP Address parameter, which is the 32-bit Internet Protocol version 4 address of a port on either the RC or RIP circuit pack was specified incorrectly.
Corrective Action	Determine the correct value for the IP_ADDR parameter and enter the command again.
Applicable Command(s)	ED-ULSDCN-L3

IDNV Input, Data Not Valid, invalid IP_SNM

Definition	The specified value for the IP_SNM parameter is not valid.
Problem or Cause	The IP Subnet Mask parameter was specified incorrectly.
Corrective Action	Enter the command again with the correct value for the IP_SNM parameter.
Applicable Command(s)	ED-ULSDCN-L3

IDNV Input, Data Not Valid, invalid ISTD

Definition	The specified value for the ISTD parameter is not valid.
Problem or Cause	The Interface Standard parameter was specified other than SONET or SDH.
Corrective Action	Enter the command again with a valid value.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid ISTDDFLT

Definition	The specified value for the ISTDDFLT parameter is not valid.
Problem or Cause	The Interface Standard Default parameter was specified other than SONET or SDH for ISTDDFLT.
Corrective Action	Enter the command again with a valid value.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid J0_insrte

Definition	The specified value for the J0_insrte parameter is not valid.
Problem or Cause	The Eport J0 Byte Sequence Insert Indicator parameter was specified other than YES or NO.
Corrective Action	Enter the command again with a valid value for the J0_insrte parameter.
Applicable Command(s)	CONN-TACC

IDNV Input, Data Not Valid, invalid J0_insrtrf

Definition	The specified value for the J0_insrtrf parameter is not valid.
Problem or Cause	The Fport J0 Byte Sequence Insert Indicator parameter was specified other than YES or NO.
Corrective Action	Enter the command again with a valid value for the J0_insrtrf parameter.
Applicable Command(s)	CONN-TACC

IDNV Input, Data Not Valid, invalid KA

Definition	The value specified for the KA parameter is not valid.
Problem or Cause	The Keep Alive parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with a valid value for the KA parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid KAALM

Definition	The value specified for the KAALM parameter is not consistent.
Problem or Cause	The Keep Alive Alarm parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with a valid value for the KAALM parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid LFEPM

Definition	The specified value for the LFEPM parameter is not valid.
Problem or Cause	The Line Far-End PM parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with a valid value for the LFEPM parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid LFEPROF

Definition	The specified value for the LFEPROF parameter is not valid.
Problem or Cause	The Line Far-End PM Profile parameter was specified other than an alphanumeric string up to 24 characters that specifies an existing PM profile.
Corrective Action	Enter the command again with a valid value for the LFEPROF parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid LNEPM

Definition	The specified value for the LNEPM parameter is not valid.
Problem or Cause	The Line Near-End PM parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with a valid value for the LNEPM parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid LNEPROF

Definition	The specified value for the LNEPROF parameter is not valid.
Problem or Cause	The Line Near-End PM Profile parameter was specified other than an alphanumeric string up to 24 characters that specifies an existing PM profile.
Corrective Action	Enter the command again with a valid value for the LNEPROF parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid locn

Definition	The specified value for the locn parameter is not valid.
Problem or Cause	The Location parameter was specified other than NEND, FEND, or ALL.
Corrective Action	Enter the command again with a correct value for the locn parameter.
Applicable Command(s)	RTRV-PM, INIT-REG

IDNV Input, Data Not Valid, invalid lpbktype

Definition	The specified value for the lpbktype parameter is not valid.
Problem or Cause	The Loopback Type parameter was specified other than lpbkcc or lpbkfc.
Corrective Action	Enter the command again with a lpbktype of lpbkcc or lpbkfc.
Applicable Command(s)	RLS-LPBK, OPR-LPBK

IDNV Input, Data Not Valid, invalid modifier

Definition	The specified value for the modifier parameter is not valid.
Problem or Cause	The Modifier parameter was specified other than OC48, OC192, STM16, or STM64.
Corrective Action	Enter the command again with the correct value for the modifier parameter.
Applicable Command(s)	RTRV-PM

IDNV Input, Data Not Valid, invalid mondat

Definition	The specified value for the mondat parameter is not valid.
Problem or Cause	The Monitor Date parameter was specified other than MM-DD for Month-Day of the current year or ALL for the current and previous day.
Corrective Action	Enter the command again with the correct value for the mondat parameter.
Applicable Command(s)	RTRV-PM

IDNV Input, Data Not Valid, invalid monlev

Definition	The specified value for the monlev parameter is not valid.
Problem or Cause	The PM Monitor Level parameter was specified other than 1-UP or 0-UP.
Corrective Action	Enter the command again with the correct value for the monlev parameter.
Applicable Command(s)	RTRV-PM

IDNV Input, Data Not Valid, invalid montm

Definition	The specified value for the montm parameter is not valid.
Problem or Cause	The Monitored Time parameter was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Enter the command again with the correct value for the montm parameter.
Applicable Command(s)	RTRV-PM

IDNV Input, Data Not Valid, invalid montype

Definition	The specified value for the montype parameter is not valid.
Problem or Cause	The Loopback Type parameter was specified other than lpbkcc or lpbkfc.
Corrective Action	Enter the command again with the correct value for the montype parameter.
Applicable Command(s)	RTRV-PM

IDNV Input, Data Not Valid, invalid MSFEPM

Definition	The specified value for the MSFEPM parameter is not valid.
Problem or Cause	The Enables/Disables Multiplex Section Far-End PM parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with the correct value for the MSFEPM parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid MSFEPROF

Definition	The specified value for the MSFEPROF parameter is not valid.
Problem or Cause	The Multiplex Section Far-End PM Profile parameter was specified other than a 24-character string that specifies an existing PM profile.
Corrective Action	Enter the command again with the correct value for the MSFEPROF parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid MSNEPM

Definition	The specified value for the MSNEPM parameter is not valid.
Problem or Cause	The Multiplex Section Far-End PM Profile parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with the correct value for the MSNEPM parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid MSNEPROF

Definition	The specified value for the MSNEPROF parameter is not valid.
Problem or Cause	The Multiplex Section Near-End PM Profile parameter was specified other than a 24-character string that specifies an existing PM profile.
Corrective Action	Enter the command again with the correct value for the MSNEPROF parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid NAID

Definition	The specified value for the NAID parameter is not valid.
Problem or Cause	The Neighbor Access Identifier parameter is the neighboring port to the port specified in the AID parameter. This parameter is allowed only in combination with the IPADDR parameter.
Corrective Action	Enter the command again with the correct value for the NAID parameter.
Applicable Command(s)	ED-PORT-LINK

IDNV Input, Data Not Valid, invalid NEWNAME

Definition	The specified value for the NEWNAME parameter is not valid.
Problem or Cause	The NewName parameter was specified other than an alphanumeric string of up to 24 characters.
Corrective Action	Determine the correct value for the NEWNAME parameter and enter the command again.
Applicable Command(s)	ED-PM-PROF

IDNV Input, Data Not Valid, invalid new_pid

Definition	The specified value for the new_pid parameter is not valid.
Problem or Cause	The New Password Identifier parameter was specified incorrectly. LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct value for the new_pid parameter and enter the command again.
Applicable Command(s)	ED-USER-SECU

IDNV Input, Data Not Valid, invalid newsid

Definition	The specified value for the newsid parameter is not valid.
Problem or Cause	The Target/Source Identifier parameter was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct value for the newsid parameter and enter the command again.
Applicable Command(s)	SET-SID

IDNV Input, Data Not Valid, invalid NEWUID

Definition	The specified value for the NEWUID parameter is not valid.
Problem or Cause	The New uid parameter was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct value for the NEWUID parameter and enter the command again.
Applicable Command(s)	ED-USER-SECU

IDNV Input, Data Not Valid, invalid ntfncnde

Definition	The specified value for the ntfncnde parameter is not valid.
Problem or Cause	The Notification Code parameter was specified other than ALL.
Corrective Action	Enter the command again with the correct value for the ntfncnde parameter.
Applicable Command(s)	RTRV-ALM

IDNV Input, Data Not Valid, invalid OAPWR

Definition	The specified value for the OAPWR parameter is not valid.
Problem or Cause	The Optical Amplifier Output Power parameter was specified other than a value (up to one decimal place) in the range of 1.0 to 4.0 for OCHA13-type ports or a value (up to one decimal place) in the range of 0.0 to 6.0 for OCHA15-type ports.
Corrective Action	Enter the command again with the correct value for the OAPWR parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid old_pid

Definition	The specified value for the old_pid parameter is not valid.
Problem or Cause	The Old Password Identifier parameter was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct value for the old_pid parameter and enter the command again.
Applicable Command(s)	ED-PID

IDNV Input, Data Not Valid, invalid ONNCFG

Definition	The value specified for the ONNCFG parameter is not valid.
Problem or Cause	The command specified an ONN Configuration parameter other than ENABLE or DISABLE.
Corrective Action	Enter the command again with the correct value for the ONNCFG parameter.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid op_sys_id

Definition	The specified value for the op_sys_id parameter is not valid.
Problem or Cause	The Operations Systems Identifier parameter was specified other than the following: • 1 for Optical Craft Interface (OCI) • 3 for Navis Optical NMS • 4 for Navis Optical EMS • 5 for Other
Corrective Action	Enter the command again with an allowable value for the op_sys_id parameter.
Applicable Command(s)	ENT-CRS

IDNV Input, Data Not Valid, invalid OSPF

Definition	The specified value for the OSPF parameter is not valid.
Problem or Cause	The DCN OSPF Domain Member Indicator parameter was specified other than ABLE or ENABLE or it was specified when the AID parameter value was other than the following: • rip10-1-1-1-1-1 • rip100-1-1-1-1-1 • pmoch-1-1-1-1-1
Corrective Action	Enter the command again with the correct value for the AID and OSPF parameters.
Applicable Command(s)	ED-ULSDCN-L3

IDNV Input, Data Not Valid, invalid OUTSWIP0

Definition	The specified value for the OUTSWIP0 parameter is not valid.
Problem or Cause	The Output SWIP on Fabric Side 0 was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Enter the command again with a valid value for the OUTSWIP0 parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid OUTSWIP1

Definition	The specified value for the OUTSWIP1 parameter is not valid.
Problem or Cause	The Output SWIP on Fabric Side 1 was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Enter the command again with a valid value for the OUTSWIP1 parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid PAGE

Definition	The specified value for the PAGE parameter is not valid.
Problem or Cause	The Password Aging Interval was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct value for the PAGE parameter and enter the command again.
Applicable Command(s)	ENT-USER-SECU

IDNV Input, Data Not Valid, invalid PARM

Definition	The specified value for the PARM parameter is not valid.
Problem or Cause	The PM Parameter was specified incorrectly. Refer to the <i>LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct value for the PARM parameter and enter the command again.
Applicable Command(s)	ED-PM-PROF, INIT-REG

IDNV Input, Data Not Valid, Invalid password

Definition	The value specified for the password parameter is not valid.
Problem or Cause	The command specified a Password parameter incorrectly. This is the FTP Server password that LambdaRouter™ AOS will use when establishing an FTP password for copying the NE database onto the FTP Server. Null password is not supported.
Corrective Action	Enter the command again with a valid password.
Applicable Command(s)	CPY-MEM

IDNV Input, Data Not Valid, invalid pfname

Definition	The specified value for the pfname parameter is not valid.
Problem or Cause	The Profile Name was specified incorrectly.
Corrective Action	Determine the correct value for the pfname parameter and enter the command again.
Applicable Command(s)	ED-PM-PROF, RTRV-PMASGNMT, RTRV-PMPROF

IDNV Input, Data Not Valid, invalid pftype

Definition	The specified value for the pftype parameter is not valid.
Problem or Cause	The Password Aging Interval was specified other than the following: • PHY-SNT, SEC, LNE, or LFE for SONET, or • PHY-SDH, RS, MSNE, or MSFE, for SDH
Corrective Action	Determine the correct value for the pftype parameter and enter the command again.
Applicable Command(s)	RTRV-PMASGNMT

IDNV Input, Data Not Valid, invalid PHYPM_SDH

Definition	The specified value for the PHYPM_SDH parameter is not valid.
Problem or Cause	The SDH Enables/Disables Physical PM parameter was specified other than ENABLE to DISABLE.
Corrective Action	Determine the correct value for the PHYPM_SDH parameter and enter the command again.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid PHYPM_SNT

Definition	The specified value for the PHYPM_SNT parameter is not valid.
Problem or Cause	The SNT Enables/Disables Physical PM parameter was specified other than ENABLE to DISABLE.
Corrective Action	Determine the correct value for the PHYPM_SNT parameter and enter the command again.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid PHYPROF_SDH

Definition	The specified value for the PHYPROF_SDH parameter is not valid.
Problem or Cause	The SDH Physical PM Profile parameter was specified other than an alphanumeric string of up to 24-characters that specify an existing PM profile.
Corrective Action	Enter the command again with a valid value for the PHYPROF_SDH parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid PHYPROF_SNT

Definition	The specified value for the PHYPROF_SNT parameter is not valid.
Problem or Cause	The SNT Physical PM Profile parameter was specified other than an alphanumeric string of up to 24-characters that specify an existing PM profile.
Corrective Action	Enter the command again with a valid value for the PHYPROF_SNT parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid pid

Definition	The specified value for the pid parameter is not valid.
Problem or Cause	The Password Identifier parameter was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct value for the pid parameter and enter the command again.
Applicable Command(s)	ENT-USER-SECU

IDNV Input, Data Not Valid, invalid PM

Definition	The specified value for the PM parameter is not valid.
Problem or Cause	The Performance Monitoring parameter was specified other than 1 or 0.
Corrective Action	Determine the correct value for the PM parameter and enter the command again.
Applicable Command(s)	ED-PM-PROF

IDNV Input, Data Not Valid, invalid PMMSFESES

Definition	The specified value for the PMMSFESES parameter is not valid.
Problem or Cause	The PM Multiplex Section Far-End SES Threshold parameter was specified other than 1 or 5-100 in increments of 5.
Corrective Action	Determine the correct value for the PMMSFESES parameter and enter the command again.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid PMMSNESES

Definition	The specified value for the PMMSNESES parameter is not valid.
Problem or Cause	The PM Multiplex Section Near-End SES Threshold parameter was specified other than 1 or 5-100 in increments of 5.
Corrective Action	Enter the command again with the correct value for the PMMSNESES parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid PMRSNESES

Definition	The specified value for the PMRSNESES parameter is not valid.
Problem or Cause	The PM Regenerator Section Near-End SES Threshold parameter was specified other than 1 or 5-100 in increments of 5.
Corrective Action	Determine the correct value for the PMRSNESES parameter and enter the command again.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, Invalid profile name

Definition	The value specified for the pname parameter is not valid.
Problem or Cause	The Profile Name parameter that was specified is not valid. Default profiles cannot be deleted.
Corrective Action	Enter the command again with the correct value for the pname parameter.
Applicable Command(s)	DLT-PM-PROF

IDNV Input, Data Not Valid, invalid PROPDELAY

Definition	The specified value for the PROPDELAY parameter is not valid.
Problem or Cause	The Propagation Delay parameter was specified other than 0-255 milliseconds.
Corrective Action	Enter the command again with the correct value for the PROPDELAY parameter.
Applicable Command(s)	ED-PORT-LINK

IDNV Input, Data Not Valid, invalid pst

Definition	The specified value for the pst parameter is not valid.
Problem or Cause	The Primary State parameter was specified other than IS or OOS.
Corrective Action	Enter the command again with a pst parameter of IS or OOS.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid pstin

Definition	The specified value for the pstin parameter is not valid.
Problem or Cause	The Input Port Primary State parameter was specified other than IS or OOS.
Corrective Action	Enter the command again with a pstin parameter of IS or OOS.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid pstout

Definition	The specified value for the pstout parameter is not valid.
Problem or Cause	The Output Port Primary State parameter was specified other than IS or OOS.
Corrective Action	Enter the command again with a pstout parameter of IS or OOS.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid PWRMDF

Definition	The specified value for the PWRMDF parameter is not valid.
Problem or Cause	The Minimum Ingress Client Power parameter was specified with an integer value range other than -10 to +8 for OCHA13 or OCHA15-type ports or in a range of -25 to +25 for OCHT-type ports.
Corrective Action	Enter the command again with valid a value.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid repeat

Definition	The specified value for the repeat parameter is not valid.
Problem or Cause	The command specified the Repeat parameter incorrectly. Valid Repeat parameter values for the TEST-ALM command are 1-10. Valid Repeat parameter values for the TEST-ALM command are 1-60.
Corrective Action	Determine the correct value for the repeat parameter and enter the command again.
Applicable Command(s)	TEST-ALM, TEST-LED

IDNV Input, Data Not Valid, invalid replytype

Definition	The specified value for the replytype parameter is not valid.
Problem or Cause	The Reply Type parameter was specified other than BROWSE or DBSYNC.
Corrective Action	Determine the correct value for the replytype parameter and enter the command again.
Applicable Command(s)	RTRV-LOG-USER, RTRV-LOG-NTFCN, RTRV-LOG-PROTNSW, RTRV-LOG-SECU

IDNV Input, Data Not Valid, invalid RESP

Definition	The specified value for the RESP parameter is not valid.
Problem or Cause	The Response parameter was specified other than YES or NO.
Corrective Action	Determine the correct value for the RESP parameter and enter the command again.
Applicable Command(s)	EX-DTHR

IDNV Input, Data Not Valid, invalid restoremode

Definition	The specified value for the restoremode parameter is not valid.
Problem or Cause	The Restore Mode parameter was specified other than ON or OFF.
Corrective Action	Determine the correct value for the restoremode parameter and enter the command again.
Applicable Command(s)	CPY-NVM

IDNV Input, Not Valid, invalid RETRYCTR

Definition	The value specified for the RETRYCTR parameter is not valid.
Problem or Cause	The Neighbor Discovery and Verification Retry Counter parameter was specified other than 0-20.
Corrective Action	Enter the command again with the correct value for the RETRYCTR parameter.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid RETRYTMR

Definition	The specified value for the RETRYTMR parameter is not valid.
Problem or Cause	The Neighbor Discovery and Verification Retry Interval Timer parameter was specified other than 1-30.
Corrective Action	Enter the command again with the correct value for the RETRYTMR parameter.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid RSPM

Definition	The specified value for the RSPM parameter is not valid.
Problem or Cause	The Enables/Disables Regenerator Section PM parameter was specified other than ENABLE or DISABLE.
Corrective Action	Ensure that the value of the RSPM parameter is ENABLE or DISABLE. Enter the command again.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid RSPROF

Definition	The specified value for the RSPROF parameter is not valid.
Problem or Cause	The Regenerator Section PM Profile parameter was specified other than an alphanumeric string up to 24-characters that specifies an existing PM profile.
Corrective Action	Ensure that the value of the port ISTD is SDH and the RSPROF parameter value is an alphanumeric string up to 24-characters and enter the command again.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid RQUSAGE

Definition	The specified value for the RQUSAGE parameter is not valid.
Problem or Cause	The Neighbor Discovery and Verification Retry Interval Timer parameter was specified other than 1-30. This parameter is allowed only when the system ONNCFG is ENABLE and a system AID is specified.
Corrective Action	Determine the correct value for the RQUSAGE parameter and enter the command again.
Applicable Command(s)	RTRV-rr

IDNV Input, Data Not Valid, invalid scope

Definition	The specified value for the scope parameter is not valid.
Problem or Cause	The Scope parameter was specified other than ALL, 1WAY, 2WAY, or LPBK.
Corrective Action	Enter the command again with the correct value for the scope parameter.
Applicable Command(s)	RTRV-CRS

IDNV Input, Data Not Valid, invalid scope

Definition	The specified value for the scope parameter is not valid.
Problem or Cause	The Message Screening parameter was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct value for the SCREEN parameter and enter the command again.
Applicable Command(s)	ENT-USER-SECU

IDNV Input, Data Not Valid, invalid SDTHR

Definition	The specified value for the SDTHR parameter is not valid.
Problem or Cause	The Signal Degrade Threshold parameter was specified other than the following: • -5 • -6 • -7 • -8 • -9
Corrective Action	Determine the correct value for the SDTHR parameter and enter the command again.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid SECPM

Definition	The specified value for the SECPM parameter is not valid.
Problem or Cause	The Enables/Disables Section PM parameter was specified other than ENABLE or DISABLE.
Corrective Action	Ensure that the value of the SECPM parameter is ENABLE or DISABLE and enter the command.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid SECPROF

Definition	The specified value for the SECPROF parameter is not valid.
Problem or Cause	The Section PM Profile parameter was specified other than an alphanumeric string up to 24-characters or that specifies an existing PM profile.
Corrective Action	Ensure that the value of the SECPROF parameter value is an alphanumeric string up to 24-characters and enter the command.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid SFTHR

Definition	The specified value for the SFTHR parameter is not valid.
Problem or Cause	The Signal Failure Threshold parameter was specified other than the following: • -3 • -4 • -5
Corrective Action	Determine the correct value for the SFTHR parameter and enter the command again.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid show_J0

Definition	The specified value for the show_J0 parameter is not valid.
Problem or Cause	The show_J0 parameter was specified other than Y or N.
Corrective Action	Determine the correct value for the show_J0 parameter and enter the command again.
Applicable Command(s)	RTRV-TACC

IDNV Input, Data Not Valid, invalid SIDE0BLK1

Definition	The specified value for the SIDE0BLK1 parameter is not valid.
Problem or Cause	The SIDE0BLK1 parameter was specified other than the following: • A{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE0BLK2

Definition	The specified value for the SIDE0BLK2 parameter is not valid.
Problem or Cause	The SIDE0BLK2 parameter was specified other than the following: • A{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE0BLK3

Definition	The specified value for the SIDE0BLK3 parameter is not valid.
Problem or Cause	The SIDE0BLK3 parameter was specified other than the following: • A{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE0BLK4

Definition	The specified value for the SIDE0BLK4 parameter is not valid.
Problem or Cause	The SIDE0BLK4 parameter was specified other than the following: • A{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE0BLK5

Definition	The specified value for the SIDE0BLK5 parameter is not valid.
Problem or Cause	The SIDE0BLK5 parameter was specified other than the following: • A{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE0BLK6

Definition	The specified value for the SIDE0BLK6 parameter is not valid.
Problem or Cause	The SIDE0BLK6 parameter was specified other than the following: • A{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE0BLK7

Definition	The specified value for the SIDE0BLK7 parameter is not valid.
Problem or Cause	The SIDE0BLK7 parameter was specified other than the following: • A{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE0BLK8

Definition	The specified value for the SIDE0BLK8 parameter is not valid.
Problem or Cause	The SIDE0BLK8 parameter was specified other than the following: • A{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256

Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE1BLK1

Definition	The specified value for the SIDE1BLK1 parameter is not valid.
Problem or Cause	The SIDE1BLK1 parameter was specified other than the following: • B{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE1BLK2

Definition	The specified value for the SIDE1BLK2 parameter is not valid.
Problem or Cause	The SIDE1BLK2 parameter was specified other than the following: • B{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE1BLK3

Definition	The specified value for the SIDE1BLK3 parameter is not valid.
Problem or Cause	The SIDE1BLK3 parameter was specified other than the following: • B{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE1BLK4

Definition	The specified value for the SIDE1BLK4 parameter is not valid.
Problem or Cause	The SIDE1BLK4 parameter was specified other than the following: • B{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE1BLK5

Definition	The specified value for the SIDE1BLK5 parameter is not valid.
Problem or Cause	The SIDE1BLK5 parameter was specified other than the following: • B{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE1BLK6

Definition	The specified value for the SIDE1BLK6 parameter is not valid.
Problem or Cause	The SIDE1BLK6 parameter was specified other than the following: • B{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE1BLK7

Definition	The specified value for the SIDE1BLK7 parameter is not valid.
Problem or Cause	The SIDE1BLK7 parameter was specified other than the following: • B{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SIDE1BLK8

Definition	The specified value for the SIDE1BLK8 parameter is not valid.
Problem or Cause	The SIDE1BLK8 parameter was specified other than the following: • B{1-8} for LambdaRouter TM AOS 128 • {A,B}{1-8} for LambdaRouter TM AOS 256
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IDNV Input, Data Not Valid, invalid SPARESWIP

Definition	The specified value for the SPARESWIP parameter is not valid.
Problem or Cause	The Substitute Spare SWIP parameter was not specified correctly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Enter the command again with the correct value for the SPARESWIP parameter.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid SRLG1

Definition	The specified value for the SRLG1 parameter is not valid.
Problem or Cause	The Shared Risk Link Group parameter was specified other than 0-65535. Three different shared risk link groups are allowed.
Corrective Action	Enter the command again with the correct value for the SRLG1 parameter.
Applicable Command(s)	ED-PORT-LINK

IDNV Input, Data Not Valid, invalid SRLG2

Definition	The specified value for the SRLG2 parameter is not valid.
Problem or Cause	The Shared Risk Link Group parameter was specified other than 0-65535. Three different shared risk link groups are allowed.
Corrective Action	Enter the command again with the correct value for the SRLG2 parameter.
Applicable Command(s)	ED-PORT-LINK

IDNV Input, Data Not Valid, invalid SRLG3

Definition	The specified value for the SRLG3 parameter is not valid.
Problem or Cause	The Shared Risk Link Group parameter was specified other than 0-65535. Three different shared risk link groups are allowed.
Corrective Action	Enter the command again with the correct value for the SRLG3 parameter.
Applicable Command(s)	ED-PORT-LINK

IDNV Input, Data Not Valid, invalid src

Definition	The value specified for the src parameter is not valid.
Problem or Cause	The command specified a Source parameter without enclosing it in quotation marks.
Corrective Action	Enter the command again with quotation marks enclosing the src parameter.
Applicable Command(s)	CPY-MEM

IDNV Input, Data Not Valid, invalid srveff

Definition	The specified value for the srveff parameter is not valid.
Problem or Cause	The Service Effect parameter was specified other than NSA (Non-Service) or SA (Service Affecting).
Corrective Action	Enter the command again with a srveff of NSA or SA.
Applicable Command(s)	RTRV-ALM

IDNV Input, Data Not Valid, invalid sst

Definition	The specified value for the sst parameter is not valid.
Problem or Cause	The Secondary State parameter was specified other than UEQ, MT, or FLT.
Corrective Action	Enter the command again with a valid value for the sst parameter.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid STAT

Definition	The specified value for the STAT parameter is not valid.
Problem or Cause	The DCN Status Indicator parameter was specified other than ACTIVE or INACTIVE or it was specified when the AID parameter value was other than the following: • rip10-1-{1,2}-1 • rip100-1-{1,2}-1 • moch-1-{1,4}-{1,2}
Corrective Action	Enter the command again with the correct value for the AID and STAT parameters.
Applicable Command(s)	ED-ULSDCN-L3

IDNV Input, Data Not Valid, invalid startdate

Definition	The specified value for the startdate parameter is not valid.
Problem or Cause	The Start Date parameter was specified other than YY-MM-DD where YY=00-99, MM=01-12, DD=01=31.
Corrective Action	Determine the correct value for the startdate parameter and enter the command again.
Applicable Command(s)	RTRV-LOG-USER, RTRV-LOG-NTFC, RTRV-LOG-PROTNSW, RTRV-LOG-ALM, RTRV-LOG-SECU

IDNV Input, Data Not Valid, invalid starttime

Definition	The specified value for the starttime parameter is not valid.
Problem or Cause	The Start Time parameter was specified other than HH-MM-SS where HH=00-23, MM=00-59, SS=01-59.
Corrective Action	Determine the correct value for the starttime parameter and enter the command again.
Applicable Command(s)	RTRV-LOG-USER, RTRV-LOG-NTFC, RTRV-LOG-PROTNSW, RTRV-LOG-ALM, RTRV-LOG-SECU

IDNV Input, Data Not Valid, invalid sw_fab

Definition	The specified value for the sw_fab parameter is not valid.
Problem or Cause	The Switch Fabric parameter was specified other than 0,1, or 2.
Corrective Action	Determine the correct value for the sw_fab parameter and enter the command again.
Applicable Command(s)	EX-DTHR, OPR-LPBK

IDNV Input, Data Not Valid, invalid sw_fabe

Definition	The specified value for the sw_fabe parameter is not valid.
Problem or Cause	The Switch Fabric parameter value for monitoring the eport was specified other than 0, 1, 2, or 3.
Corrective Action	Determine the correct value for the sw_fabe parameter and enter the command again.
Applicable Command(s)	CONN-TACC

IDNV Input, Data Not Valid, invalid sw_fabf

Definition	The specified value for the sw_fabf parameter is not valid.
Problem or Cause	The Switch Fabric parameter value for monitoring the fport was specified other than 0, 1, 2, or 3.
Corrective Action	Determine the correct value for the sw_fabf parameter and enter the command again.
Applicable Command(s)	CONN-TACC

IDNV Input, Data Not Valid, invalid SYSCFG

Definition	The specified value for the SYSCFG parameter is not valid.
Problem or Cause	The System Configuration parameter was specified with a value other than CD2 or DD2.
Corrective Action	Enter the command again with the correct value for SYSCFG.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid TCARPT

Definition	The specified value for the TCARPT parameter is not valid.
Problem or Cause	The TCA Report parameter was specified other than ENABLE or DISABLE.
Corrective Action	Enter the command again with the correct value for the TCARPT parameter.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid TCA value

Definition	The specified value for the TCA parameter is not valid.
Problem or Cause	The TCA Reporting Status parameter was specified other than 1 or 0.
Corrective Action	Determine the correct value for the TCA parameter and enter the command again.
Applicable Command(s)	ED-PM-PROF

IDNV Input, Data Not Valid, invalid TH15

Definition	The specified value for the TH15 parameter is not valid.
Problem or Cause	The 15-Minute Bin Threshold parameter was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct value for the TH15 parameter and enter the command again.
Applicable Command(s)	ED-PM-PROF

IDNV Input, Data Not Valid, invalid THDAY

Definition	The specified value for the THDAY parameter is not valid.
Problem or Cause	The 15-Minute Bin Threshold parameter was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct value for the THDAY parameter and enter the command again.
Applicable Command(s)	ED-PM-PROF

IDNV Input, Data Not Valid, invalid THRSHLD

Definition	The specified value for the THRSHLD parameter is not valid.
Problem or Cause	The Lockout Threshold parameter was specified other than 2-99.
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-NE-SECU

IDNV Input, Data Not Valid, invalid time

Definition	The specified value for the time parameter is not valid.
Problem or Cause	The Time parameter was specified other than HH-MM-SS where HH=00-23, MM=00-59, SS=01-59.
Corrective Action	Determine the correct value for the time parameter and enter the command again.
Applicable Command(s)	ED-DAT

IDNV Input, Data Not Valid, invalid TMOUT

Definition	The specified value for the TMOUTparameter is not valid.
Problem or Cause	The Inactivity Timeout Parameter was specified other than 0-999.
Corrective Action	Determine the correct value for the TMOUT parameter and enter the command again.
Applicable Command(s)	ED-USER-SECU

IDNV Input, Data Not Valid, invalid tmper

Definition	The specified value for the tmper parameter is not valid.
Problem or Cause	The Time Period parameter was specified other than 15-MIN or 1-DAY.
Corrective Action	Determine the correct value for the tmper parameter and enter the command again.
Applicable Command(s)	RTRV-PM, INIT-REG

IDNV Input, Data Not Valid, invalid To

Definition	The value specified for the to parameter is not valid.
Problem or Cause	The command specified a To Memory Type parameter other than CIT, EMS, or PRI.
Corrective Action	Enter the command again with the correct value for the to parameter.
Applicable Command(s)	CPY-MEM

IDNV Input, Data Not Valid, invalid to

Definition	The specified value for the to parameter is not valid.
Problem or Cause	The Destination Location parameter was specified other than ACTV or SEC.
Corrective Action	Determine the correct value for the to parameter and enter the command again.
Applicable Command(s)	CPY-NVM

IDNV Input, Data Not Valid, invalid type

Definition	The specified type parameter is not valid.
Problem or Cause	The Type parameter was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Enter the command again with the correct type parameter.
Applicable Command(s)	ED-rr, ENT-EQPT

IDNV Input, Data Not Valid, invalid uid

Definition	The specified value for the uid parameter is not valid.
Problem or Cause	The User Identifier parameter was specified incorrectly. The uid parameter must be a case-sensitive alphanumeric string of 1 to 10 characters.
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	RTRV-USER-SECU

IDNV Input, Data Not Valid, invalid USAGE

Definition	The specified value for the USAGE parameter is not valid.
Problem or Cause	The Port Usage parameter was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct value for the USAGE parameter and enter the command again.
Applicable Command(s)	ED-rr

IDNV Input, Data Not Valid, invalid USAGEDFLT

Definition	The specified value for the USAGEDFLT parameter is not valid.
Problem or Cause	The Port Usage Default parameter was specified other than CLIENT, NNI, or UNI.
Corrective Action	Determine the correct value for the parameter and enter the command again.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid valck

Definition	The value specified for the valck parameter was not valid.
Problem or Cause	The Validation Check parameter was specified other than BRDG, MERG, BRMG, or blank. Alternately, it was not specified as blank or BRMG when the cct parameter value was 2WAY. A value of MERG is required when a merge configuration is established with only one command entry.
Corrective Action	Enter the command again with the correct value for the valck parameter.
Applicable Command(s)	ENT-CRS

IDNV Input, Data Not Valid, invalid VPNID

Definition	The specified value for the VPNID parameter is not valid.
Problem or Cause	The Virtual Private Network ID parameter was specified other than 0-65535.
Corrective Action	Enter the command again with the correct value for the VPNID parameter.
Applicable Command(s)	ED-PORT-LINK

IDNV Input, Data Not Valid, invalid VRECVTMR

Definition	The specified value for the VRECVTMR parameter is not valid.
Problem or Cause	The Verification Receive Timer parameter was specified other than 1-29.
Corrective Action	Enter the command again with the correct value for the VRECVTMR.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, invalid VRESPTMR

Definition	The specified value for the VRESPTMR parameter is not valid.
Problem or Cause	The Verification Response Timer parameter was specified other than 2-30.
Corrective Action	Enter the command again with the correct value for the VRESPTMR.
Applicable Command(s)	ED-EQPT

IDNV Input, Data Not Valid, IPADDR conflicts with local IP address

Definition	The specified value for the IPADDR parameter conflicts with the local IP address.
Problem or Cause	The RC IP address parameter was specified with the same value as the local IP address.
Corrective Action	Determine the correct value for the IPADDR parameter and enter the command again.
Applicable Command(s)	ED-PORT-LINK

IDNV Input, Data Not Valid, profile type invalid

Definition	The value specified for the ptype parameter is not valid.
Problem or Cause	The Profile Type parameter that was specified other than the following: • phy • sec • lne • lfe • rs • msne • msfe
Corrective Action	Enter the command again with the correct value for the ptype parameter.
Applicable Command(s)	DLT-PM-PROF

IEAE Input, Entity to be created Already Exists

Definition	The specified entity already exists.
Problem or Cause	The TL1 command attempted to create an entity that already exists.
Corrective Action	Determine the correct value for the entity and enter the command again.
Applicable Command(s)	ENT-EQPT, ENT-PM-PROF, ED-PORT-LINK

IENE Input, object Entity does Not Exist

Definition	The specified object does not exist.
Problem or Cause	The specified object is not provisioned or the object was specified incorrectly.
Corrective Action	Determine the correct object to be modified and enter the command again or provision the object and then enter the command again.
Applicable Command(s)	ED-rr, DLT-CRS, ED-PORT-LINK, RTRV-rr, RTRV-PM, RTRV-EQPT, INIT-REG, TEST-LED, RTRV-PMPR, RTRV-PMASGNMT, DISC-TACC, CONN-TACC, DLT-EQPT, INIT-EQPT, ED-EQPT

IENE Input, object Entity does Not Exist, invalid instance of entity

Definition	The specified pfname does not exist.
Problem or Cause	The specified Profile Name does not exist.
Corrective Action	Determine the correct pfname and enter the command again or provision the object and then enter the command again.
Applicable Command(s)	ED-PM-PROF

IENE Input, object Entity does Not Exist, non-existent profile

Definition	The specified pname does not exist.
Problem or Cause	The value specified for the Profile Name parameter does not exist.
Corrective Action	Enter the command again with the correct value for the pname parameter.
Applicable Command(s)	DLT-PM-PROF

IENE Input, object Entity does Not Exist, port does not exist

Definition	The specified port does not exist.
Problem or Cause	The specified port is not provisioned or the port was specified incorrectly.
Corrective Action	Determine the correct port and enter the command again or provision the port and then enter the command again.
Applicable Command(s)	RTRV-PORT-LINK

IENE Input, object Entity does Not Exist, SWMG does not exist

Definition	A specified OIS SWIP block is assigned to a SWMG that does not exist.
Problem or Cause	The specified SWIP block object resides on an SWMG that has not been provisioned or the object was specified incorrectly.
Corrective Action	Determine the correct object to be modified and enter the command again or provision the object and then enter the command again.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IIAC Input, Invalid Access Identifier

Definition	The specified value for the AID parameter is not valid or it is not valid for that command.
Problem or Cause	The specified Access Identifier syntax was incorrect. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> or valid values for this parameter.
Corrective Action	Determine the correct value for the AID parameter and enter the command again.
Applicable Command(s)	All commands

IIAC Input, Invalid Access Identifier, invalid in_aid

Definition	The specified value for the in_aid parameter is not valid.
Problem or Cause	The Input Port Access Identifier was specified other than: - For ports on a LambdaRouter[™] AOS 128 OIS shelf—och-{1-4}-{1-32}-{1-4} - For ports on a LambdaRouter[™] AOS 256 OIS shelf—och-{1-7}-{1-32}-{1-4}
Corrective Action	Determine the correct value for the in_aid parameter and enter the command again.
Applicable Command(s)	RTRV-CRS, OPR-LPBK

IIAC Input, Invalid Access Identifier, invalid in_aid_1

Definition	The specified value for the in_aid_1 parameter is not valid.
Problem or Cause	The Input Access Identifier #1 parameter was specified other than the following: - For ports on a LambdaRouter[™] AOS 128 OIS shelf—och-{1-4}-{1-32}-{1-4} - For ports on a LambdaRouter[™] AOS 256 OIS shelf—och-{1-7}-{1-32}-{1-4}
Corrective Action	Determine the correct value for the in_aid_1 parameter and enter the command again.
Applicable Command(s)	DLT-CRS, ENT-CRS

IIAC Input, Invalid Access Identifier, invalid in_aid_2

Definition	The specified value for the in_aid_2 parameter is not valid.
Problem or Cause	The Input Access Identifier #2 parameter was specified other than the following: • For ports on a LambdaRouter[™] AOS 128 OIS shelf—och-{1-4}-{1-32}-{1-4} • For ports on a LambdaRouter[™] AOS 256 OIS shelf—och-{1-7}-{1-32}-{1-4}
Corrective Action	Determine the correct value for the in_aid_2 parameter and enter the command again.
Applicable Command(s)	DLT-CRS, ENT-CRS

IIAC Input, Invalid Access Identifier, invalid taport1

Definition	The specified value for the taport1 parameter is not valid.
Problem or Cause	The Access Identifier of the TAM to be used for one TA cross-connection was specified other than the following. • For ports on a LambdaRouter[™] AOS 128—och-{1-4}-{1-32}-{1-4} • For ports on a LambdaRouter[™] AOS 256—och-{1-7}-{1-32}-{1-4} This parameter must be used for the MONE test mode, MONF test mode, or for one direction of the MONEF test mode.
Corrective Action	Determine the correct value for the taport1 parameter and enter the command again.
Applicable Command(s)	CONN-TACC, DISC-TACC

IIAC Input, Invalid Access Identifier, invalid taport2

Definition	The specified value for the taport2 parameter is not valid.
Problem or Cause	The Access Identifier of the second TAM to be used for two TA cross-connections was specified other than the following. • For ports on a LambdaRouterTM AOS 128—och-{1-4}-{1-32}-{1-4} • For ports on a LambdaRouterTM AOS 256—och-{1-7}-{1-32}-{1-4} This parameter must be used for the second direction of the MONEF test mode.
Corrective Action	Determine the correct value for the taport2 parameter and enter the command again.
Applicable Command(s)	CONN-TACC, DISC-TACC

IIAC Input, Invalid Access Identifier, invalid out_aid

Definition	The specified value for the out_aid parameter is not valid.
Problem or Cause	The Output Port Access Identifier was specified other than the following: - For ports on a LambdaRouter[™] AOS 128 OIS shelf—och-{1-4}-{1-32}-{1-4} - For ports on a LambdaRouter[™] AOS 256 OIS shelf—och-{1-7}-{1-32}-{1-4}
Corrective Action	Determine the correct value for the out_aid parameter and enter the command again.
Applicable Command(s)	RTRV-CRS, OPR-LPBK

IIAC Input, Invalid Access Identifier, invalid out_aid_1

Definition	The specified value for the out_aid_1 parameter is not valid.
Problem or Cause	The Output Access Identifier #1 parameter was specified other than the following: - For ports on a LambdaRouter[™] AOS 128 OIS shelf—och-{1-4}-{1-32}-{1-4} - For ports on a LambdaRouter[™] AOS 256 OIS shelf—och-{1-7}-{1-32}-{1-4}
Corrective Action	Determine the correct value for the out_aid_1 parameter and enter the command again.
Applicable Command(s)	DLT-CRS, ENT-CRS

IIAC Input, Invalid Access Identifier, invalid out_aid_2

Definition	The specified value for the out_aid_2 parameter is not valid.
Problem or Cause	The Output Access Identifier #2 parameter was specified other than the following: • For ports on a LambdaRouter[™] AOS 128 OIS shelf—och-{1-4}-{1-32}-{1-4} • For ports on a LambdaRouter[™] AOS 256 OIS shelf—och-{1-7}-{1-32}-{1-4}
Corrective Action	Determine the correct value for the out_aid_2 parameter and enter the command again.
Applicable Command(s)	DLT-CRS, ENT-CRS

IIAC Input, Invalid Access Identifier, not loopback input port

Definition	The specified value for the input port is not valid.
Problem or Cause	The specified port did not have a loopback established.
Corrective Action	Determine the correct value for the input port AID and enter the command again.
Applicable Command(s)	RLS-LPBK

IICM Input, Invalid Command

Definition	The specified value for the Modifier parameter is not valid or the command is unsupported or unrecognized.
Problem or Cause	The command failed due to one of the following: • The Modifier parameter was specified other than ALL, OCH, COM, or EQPT. • The command was specified incorrectly. • The command was unrecognized or unsupported.
Corrective Action	Determine the correct modifier parameter or specify the command correctly, and enter the command again, or do not enter the command again.
Applicable Command(s)	All commands

IICT Input, Invalid Correlation Tag

Definition	The ctag is not valid.
Problem or Cause	The Correlation Tag parameter syntax was specified incorrectly.
Corrective Action	Determine the correct syntax for the ctag parameter and enter the command again.
Applicable Command(s)	All commands

IISP Input, Invalid Syntax or Punctuation

Definition	The specified syntax or punctuation is not valid.
Problem or Cause	The command was specified with incorrect syntax or punctuation. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid syntax and punctuation.
Corrective Action	Determine the correct syntax and punctuation and enter the command again.
Applicable Command(s)	All commands

IITA Input, Invalid Target Identifier

Definition	The specified tid is not valid.
Problem or Cause	The specified Target Identifier parameter syntax was not correct or was not recognized.
Corrective Action	Determine the correct syntax and enter the command again.
Applicable Command(s)	All commands

INAC Input, Access Number not Correct

Definition	The Access Number is incorrect
Problem or Cause	The file transfer failed due to an incorrect FTP IP address.
Corrective Action	Enter the command again with the correct value for the FTP IP address.
Applicable Command(s)	CPY-MEM

IPMS Input, Parameter MiSsing, missing aid

Definition	The aid parameter is missing.
Problem or Cause	The command did not specify the required Access Identified parameter.
Corrective Action	Enter the command again specifying an AID parameter.
Applicable Command(s)	RTRV-PM-ASSGNMT, INIT-REG

IPMS Input, Parameter MiSsing, missing class

Definition	The class parameter is missing.
Problem or Cause	The CPY-MEM TL1 command did not specify the required Class parameter. Valid values are BACKUP, RESTORE, or DOWNLOAD.
Corrective Action	Enter the command again specifying a class parameter.
Applicable Command(s)	CPY-MEM

IPMS Input, Parameter MiSsing, missing datatype

Definition	The datatype parameter is missing.
Problem or Cause	The command did not specify the required Datatype parameter. Valid values are DATA, SFTWR, ALL, or CAL.
Corrective Action	Enter the command again specifying a datatype parameter.
Applicable Command(s)	CPY-MEM, CPY-NVM

IPMS Input, Parameter MiSsing, missing date/time

Definition	The date and time parameters are missing.
Problem or Cause	The Date and Time parameters were not specified.
Corrective Action	Enter the command again specifying the date and/or time parameters.
Applicable Command(s)	ED-DAT

IPMS Input, Parameter MiSsing, missing dest

Definition	The dest parameter is missing.
Problem or Cause	The Destination parameter was not specified. Valid values are 0 or 1.
Corrective Action	Determine the correct value for the dest parameter and enter the command again.
Applicable Command(s)	CPY-MEM, OPR-PROTNSW-FRCD, OPR-PROTNSW-MAN

IPMS Input, Parameter MiSsing, missing ftpipaddr

Definition	The ftpipaddr parameter is missing.
Problem or Cause	The CPY-MEM TL1 command did not specify the required FTP Internet Protocol Address parameter.
Corrective Action	Enter the command again specifying a ftpipaddr parameter.
Applicable Command(s)	CPY-MEM

IPMS Input, Parameter MiSsing, missing ftpuserid

Definition	The ftpuserid parameter is missing.
Problem or Cause	The CPY-MEM TL1 command did not specify the required FTP User Name parameter.
Corrective Action	Enter the command again specifying a ftpuserid parameter.
Applicable Command(s)	CPY-MEM

IPMS Input, Parameter MiSsing, missing from

Definition	The from parameter is missing.
Problem or Cause	The CPY-MEM or the CPY-NVM TL1 command did not specify the required From Memory Type parameter. Valid values are CIT, EMS, or PRI.
Corrective Action	Enter the command again specifying a from parameter.
Applicable Command(s)	CPY-NVM

IPMS Input, Parameter MiSsing, missing IPADDR parameter

Definition	The IPADDR parameter is missing.
Problem or Cause	The ED-PORT-LINK TL1 command did not specify the required RC IP Address parameter.
Corrective Action	Enter the command again specifying an IPADDR parameter.
Applicable Command(s)	ED-PORT-LINK

IPMS Input, Parameter MiSsing, missing NAID parameter

Definition	The NAID parameter is missing.
Problem or Cause	The ED-PORT-LINK TL1 command did not specify the required Neighbor Access Identifier parameter.
Corrective Action	Enter the command again specifying an NAID parameter.
Applicable Command(s)	ED-PORT-LINK

IPMS Input, Parameter MiSsing, missing newsid

Definition	The newsid parameter is missing.
Problem or Cause	The SET-SID TL1 command did not specify the required Target/Source Identification parameter.
Corrective Action	Enter the command again specifying a newsid parameter.
Applicable Command(s)	SET-SID

IPMS Input, Parameter MiSsing, missing password

Definition	The password parameter is missing.
Problem or Cause	The command did not specify the required Password parameter.
Corrective Action	Enter the command again specifying a password parameter.
Applicable Command(s)	CPY-MEM

IPMS Input, Parameter MiSsing, missing pfname

Definition	The pfname parameter is missing.
Problem or Cause	The required Profile Name parameter was not specified.
Corrective Action	Enter the command again specifying a pfname parameter.
Applicable Command(s)	ED-PM-PROF, RTRV-PMASGNMT

IPMS Input, Parameter MiSsing, missing pftype

Definition	The pftype parameter is missing.
Problem or Cause	The required Profile Type parameter was not specified.
Corrective Action	Enter the command again specifying a pftype parameter.
Applicable Command(s)	ED-PM-PROF, RTRV-PMPROF, RTRV-PMASGNMT

IPMS Input, Parameter MiSsing, pid

Definition	The pid parameter is missing.
Problem or Cause	The ENT-USER-SECU TL1 command did not specify the required Password Identification parameter.
Corrective Action	Enter the command again specifying a pid parameter.
Applicable Command(s)	ENT-USER-SECU

IPMS Input, Parameter MiSsing, pm-day-start

Definition	The pm-day-start parameter is missing.
Problem or Cause	The required Performance Day Start parameter was not specified. Valid values are 0 to 23, which represents the hour of the day.
Corrective Action	Enter the command again specifying a pm-day-start parameter.
Applicable Command(s)	SET-PMDAY

IPMS Input, Parameter MiSsing, missing SIDE0BLK assignment

Definition	The SIDE0BLK parameter is missing.
Problem or Cause	The command attempted to assign a SIDE1BLKy (where y equals {1-8}) parameter without assigning a SIDE0BLKz (where z equals the value of y in SIDE1BLKy) parameter when the SIDE0BLKy and SIDE1BLKz is currently unassigned and both SWIP Maintenance Groups existed.
Corrective Action	Enter the command again specifying the SIDE0BLK along with the SIDE1BLK parameter.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IPMS Input, Parameter MiSsing, missing SIDE0BLK assignment

Definition	The SIDE0BLK parameter is missing.
Problem or Cause	The command attempted to assign a SIDE1BLKy (where y equals {1-8}) parameter without assigning a SIDE0BLKz (where z equals the value of y in SIDE1BLKy) parameter when the SIDE1BLKy and SIDE0BLKz is currently unassigned and both SWIP Maintenance Groups (SWMGs) existed.
Corrective Action	Enter the command again specifying the SIDE0BLK along with the SIDE1BLK parameter.
Applicable Command(s)	ED-EQPT

IPMS Input, Parameter MiSsing, missing SIDE0BLK assignment

Definition	The SIDE0BLK parameter is missing.
Problem or Cause	The command attempted to enter an Optical Interface Shelf (OIS) when SWIP Maintenance Group-0 (SWMG-0) exists without provisioning at least one SIDE0BLKy parameter (where y={1-8}).
Corrective Action	Enter the command again specifying at least one SIDE0BLKy parameter.
Applicable Command(s)	ENT-EQPT

IPMS Input, Parameter MiSsing, missing SIDE0BLK assignment

Definition	The SIDE0BLK parameter is missing.
Problem or Cause	The command attempted to assign a SIDE0BLKy (where y equals {1-8}) parameter without assigning a SIDE1BLKz (where z equals the value of y in SIDE0BLKy) parameter when the SIDE0BLKy and SIDE1BLKz is currently unassigned and both SWIP Maintenance Groups existed.
Corrective Action	Enter the command again specifying the missing SIDE1BLK assignment.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IPMS Input, Parameter MiSsing, missing SIDE0BLK assignment

Definition	The SIDE0BLK parameter is missing.
Problem or Cause	The command attempted to assign a SIDE1BLKy (where y equals {1-8}) parameter without assigning a SIDE0BLKz (where z equals the value of y in SIDE1BLKy) parameter when both SIDE1BLKy and SIDE0BLKz is currently assigned and both SWIP Maintenance Groups existed.
Corrective Action	Enter the command again specifying the SIDE0BLK assignment along with the SIDE1BLK parameter.
Applicable Command(s)	ED-EQPT

IPMS Input, Parameter MiSsing, missing SIDE0BLK assignment

Definition	The SIDE0BLK parameter is missing.
Problem or Cause	The command attempted to assign a SIDE1BLKy (where y equals {1-8}) parameter without assigning a SIDE0BLKz (where z equals the value of y in SIDE1BLKy) parameter when both SIDE1BLKy and SIDE0BLKz is currently assigned and both SWIP Maintenance Groups existed.
Corrective Action	Enter the command again specifying the SIDE0BLK assignment along with the SIDE1BLK parameter.
Applicable Command(s)	ED-EQPT

IPMS Input, Parameter MiSsing, missing SIDE1BLK assignment

Definition	The SIDE1BLK parameter is missing.
Problem or Cause	The command attempted to assign a SIDE0BLKy (where y equals {1-8}) parameter without assigning a SIDE1BLKz (where z equals the value of y in SIDE1BLKy) parameter when the SIDE0BLKy and SIDE1BLKz is currently unassigned and both SWIP Maintenance Groups existed.
Corrective Action	Enter the command again specifying the SIDE1BLK along with the SIDE0BLK parameter.
Applicable Command(s)	ED-EQPT

IPMS Input, Parameter MiSsing, missing SIDE1BLK assignment

Definition	The SIDE1BLK parameter is missing.
Problem or Cause	The command attempted to enter an Optical Interface Shelf (OIS) when SWIP Maintenance Group-1 (SWMG-1) exists without provisioning at least one SIDE1BLKy parameter (where y={1-8}).
Corrective Action	Enter the command again specifying the missing SIDE1BLKy assignment.
Applicable Command(s)	ENT-EQPT

IPMS Input, Parameter MiSsing, missing SIDE1BLK assignment

Definition	The SIDE1BLK parameter is missing.
Problem or Cause	The command attempted to assign a SIDE0BLKy (where y equals {1-8}) parameter without assigning a SIDE1BLKz (where z equals the value of y in SIDE0BLKy) parameter when the SIDE0BLKy and SIDE1BLKz is currently unassigned and both SWIP Maintenance Groups existed.
Corrective Action	Enter the command again specifying the missing SIDE1BLK assignment.
Applicable Command(s)	ED-EQPT, ENT-EQPT

IPMS Input, Parameter MiSsing, missing SIDE1BLK assignment

Definition	The SIDE0BLK parameter is missing.
Problem or Cause	The command attempted to assign a SIDE0BLKy (where y equals {1-8}) parameter without assigning a SIDE1BLKz (where z equals the value of y in SIDE1BLKy) parameter when both SIDE0BLKy and SIDE1BLKz are currently assigned and both SWIP Maintenance Groups existed.
Corrective Action	Enter the command again specifying the SIDE1BLK assignment along with the SIDE0BLK parameter.
Applicable Command(s)	ED-EQPT

IPMS Input, Parameter MiSsing, missing src

Definition	The src parameter is missing.
Problem or Cause	The command did not specify the required Source parameter.
Corrective Action	Enter the command again specifying an src parameter.
Applicable Command(s)	CPY-MEM

IPMS Input, Parameter MiSsing, missing sw_fab

Definition	The sw_fab parameter is missing for a forced loopback.
Problem or Cause	The required Switch Fabric parameter was missing. Valid values are 0,1, or 2.
Corrective Action	Enter the command again specifying a sw_fab parameter.
Applicable Command(s)	OPR-LPBK

IPMS Input, Parameter MiSsing, missing taport1

Definition	The taport1 parameter is missing.
Problem or Cause	The required Test Access Monitoring Port #1 parameter was not specified.
Corrective Action	Enter the command again with a type parameter of T or 10G.
Applicable Command(s)	DISC-TACC

IPMS Input, Parameter MiSsing, missing tmper

Definition	The tmper parameter is missing.
Problem or Cause	The Time Period parameter was not specified. Valid values are 15-MIN, 1-DAY or ALL.
Corrective Action	Enter the command again specifying a tmper parameter.
Applicable Command(s)	RTRV-PM, INIT-REG

IPMS Input, Parameter MiSsing, missing to

Definition	The to parameter is missing.
Problem or Cause	The CPY-MEM or the CPY-NVM TL1 command did not specify the required To Memory Type parameter. Valid values are CIT, EMS, or PRI.
Corrective Action	Enter the command again specifying a to parameter.
Applicable Command(s)	CPY-MEM, CPY-NVM

IPMS Input, Parameter MiSsing, missing type

Definition	The type parameter is missing.
Problem or Cause	The required Port Type parameter was not specified by the ED-rr TL1 command or the required shelf type parameter was not specified when creating an OIS shelf with the ENT-EQPT command.
Corrective Action	Enter the command again with a type parameter.
Applicable Command(s)	ED-rr, ENT-EQPT

IPMS Input, Parameter MiSsing, missing tstmdc

Definition	The tstmdc parameter is missing.
Problem or Cause	The required Test Mode parameter was not specified.
Corrective Action	Enter the command again with a value for the tstmdc parameter.
Applicable Command(s)	CONN-TACC

IPNC Input, Parameter Not Consistent

Definition	The specified pftype parameter is not allowed.
Problem or Cause	The command specified an invalid Profile Type.
Corrective Action	Enter the command again with the correct values for the pftype parameter.
Applicable Command(s)	ENT-PM-PROF

IPNC Input, Parameter Not Consistent, inconsistent LOCN for PARM

Definition	The specified parameter is not allowed for the specified location.
Problem or Cause	The specified parameter is invalid for the specified location. Refer to the <i>LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct PARM for the given LOCN value and enter the command again.
Applicable Command(s)	INIT-REG

IPNC Input, Parameter Not Consistent, inconsistent parameter and ONNCFG

Definition	The specified parameter is not allowed for the specified ONNCFG.
Problem or Cause	The command specified one of the following parameters: • AUTODISC • AUTOVINT • AUTOVTIME • DISCTXTMR • RETRYCTR • RETRYTMR • VRECVTMR • VRESPTMR when the system ONNCFG was equal to DISABLE.
Corrective Action	Ensure that the system ONNCFG is equal to ENABLE or do not specify any of the above parameters and enter the command again.
Applicable Command(s)	ED-EQPT

IPNC Input, Parameter Not Consistent, inconsistent parameter and port type

Definition	The specified parameter is not allowed for the specified port type.
Problem or Cause	The specified parameter is invalid for the specified port type. Refer to the <i>LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the correct parameter for the given port type values and enter the command again.
Applicable Command(s)	ED-rr

IPNC Input, Parameter Not Consistent, inconsistent PARM and pftype

Definition	The values specified for the PARM and pftype parameters are inconsistent.
Problem or Cause	The values specified for the PM parameter and the Profile Type parameter are incompatible. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Enter the command again with the correct values for the PARM and pftype parameters.
Applicable Command(s)	ED-PM-PROF

IPNC Input, Parameter Not Consistent, inconsistent pst and spec_block

Definition	The pst and spec_block parameters are inconsistent.
Problem or Cause	A Specific Block parameter was specified with a pstin or pstout parameter.
Corrective Action	Enter the command again without specifying a pstin or pstout parameter or without specifying any spec_block parameters.
Applicable Command(s)	ED-rr

IPNC Input, Parameter Not Consistent, inconsistent SWIPs

Definition	The command specified more than one SWIP parameter (INSWIP0, INSWIP1, OUTSWIP0, OUTSWIP1).
Problem or Cause	More than one SWIP parameter cannot be specified within the same command.
Corrective Action	Enter the command again with one SWIP parameter specified.
Applicable Command(s)	ED-rr

IPNV Input, Parameter Not Valid

Definition	The specified spec_block parameter is invalid.
Problem or Cause	The command specified a Specific Block parameter name incorrectly.
Corrective Action	Determine the correct name of the parameter and enter the command again.
Applicable Command(s)	ED-rr, ED-EQPT, ED-ULSDCN-L3, ENT-EQPT, EX-DTHR, SET-ATTR-ALM

IPNV Input, Parameter Not Valid, invalid IP_ADDR

Definition	The value specified for the IP_ADDR parameter is not valid.
Problem or Cause	The IP address parameter was specified incorrectly.
Corrective Action	Enter the command again with the correct value for the IP_ADDR parameter.
Applicable Command(s)	ED-ULSDCN-L3

IPNV Input, Parameter Not Valid, invalid pm-day-start

Definition	The value specified for the pm-day-start parameter is not valid.
Problem or Cause	The Performance Day Start parameter was specified other than 0-23.
Corrective Action	Enter the command again with the correct value for the pm-day-start parameter.
Applicable Command(s)	SET-PMDAY

PIMF Privilege, Invalid Command Code

Definition	The user privilege level is not valid for the command.
Problem or Cause	The User Privilege level was lower than the required for the command.
Corrective Action	Obtain the appropriate user privilege level and enter the command again.
Applicable Command(s)	All commands

PIMF Privilege, Invalid Memory File

Definition	The memory file is not valid.
Problem or Cause	The CPY-MEM command specified a memory file that cannot be found or the user does not have appropriate privileges.
Corrective Action	Obtain the appropriate privilege level, verify the memory file name, and enter the command again.
Applicable Command(s)	CPY-MEM

PIUC Privilege, Invalid User Code

Definition	The upc is not valid.
Problem or Cause	The User Privilege Code was specified incorrectly. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for valid values for this parameter.
Corrective Action	Determine the appropriate upc and enter the command again.
Applicable Command(s)	ED-USER-SECU, ENT-USER-SECU

PIUI Privilege, Invalid User Identity

Definition	The user identifier and/or password is not valid.
Problem or Cause	The FTP user identifier and/or password are not valid.
Corrective Action	Determine the correct user identifier and/or password and enter the command again.
Applicable Command(s)	CPY-MEM

RCBY Resource, Circuit Busy, sw_fab busy

Definition	The specified sw_fab is busy.
Problem or Cause	The command for a forced loopback specified a switch fabric that could not be used because the output selector was forced to connect to the other fabric.
Corrective Action	Release the forced connection to the other switch fabric and issue the command again.
Applicable Command(s)	OPR-LPBK

SAAS Status, Already Assigned, cross-connection exists

Definition	The specified port is in use.
Problem or Cause	A normal loopback was requested; the specified port has an existing cross-connection.
Corrective Action	Determine the correct port and enter the command again.
Applicable Command(s)	OPR-LPBK

SAAS Status, Already Assigned, input port in use

Definition	The specified input port is in use.
Problem or Cause	The input port AID specified a port for which a cross-connect leg already existed when the valck parameter value was other than BRDG or BRMG.
Corrective Action	Determine the correct input port and enter the command again.
Applicable Command(s)	ENT-CRS

SAAS Status, Already Assigned, output port in use

Definition	The specified output port is in use.
Problem or Cause	The MERG or the BRMG parameter is required when the specified output port has an existing cross-connection leg.
Corrective Action	Determine the correct output port and enter the command again.
Applicable Command(s)	ENT-CRS

SAAS Status, Already Assigned, output port in use

Definition	The specified output port is in use.
Problem or Cause	The specified port has an existing cross-connection or the output portion of the specified port is being used for an independent 1WAY cross-connection.
Corrective Action	Determine the correct output port and enter the command again.
Applicable Command(s)	OPR-LPBK

SAAS Status, Already Assigned, port reserved for AIRP

Definition	The specified port is reserved for AIRP.
Problem or Cause	The input port or output port AID specified a port that is reserved for AIRP use as a LINK_PROBE port.
Corrective Action	Determine the correct port AID and enter the command again.
Applicable Command(s)	ENT-CRS, OPR-LPBK, CONN-TACC

SAAS Status, Already Assigned, port reserved for path testing by ONNS

Definition	The specified port is reserved for path testing by ONNS.
Problem or Cause	The output port AID specified a port that is reserved for ONNS use as a REVERTIVE path testing port.
Corrective Action	Determine the correct port AID and enter the command again.
Applicable Command(s)	CONN-TACC, OPR-LPBK, ENT-CRS

SAAS Status, Already Assigned, port reserved for Test Access

Definition	The specified port is reserved for Test Access.
Problem or Cause	The output port AID specified a port that had a USAGE parameter value of TEST_ACC.
Corrective Action	Determine the correct output AID and enter the command again.
Applicable Command(s)	ENT-CRS

SADS Status, Access unit in Diagnostic State, AIRP operation in progress

Definition	The specified port is already in use for port discovery or link verification.
Problem or Cause	The command specified an input or output port that was already in use for port discovery or link verification. An AIRP cross-connection cannot be deleted.
Corrective Action	Enter the command again specifying the correct port AIDs.
Applicable Command(s)	DLT-CRS, ENT-CRS, OPR-LPBK, CONN-TACC

SADS Status, Access unit in Diagnostic State, loopback exists

Definition	The specified port is already in use for a loopback.
Problem or Cause	The command specified a port where a loopback existed. A cross-connection associated with a loopback cannot be deleted until the loopback is released. A test access cross-connection cannot be established using an input port that has a loopback established.
Corrective Action	Enter the command again with the correct port AIDs
Applicable Command(s)	DLT-CRS, ENT-CRS, OPR-LPBK, CONN-TACC

SADS Status, Access Unit in Diagnostic State, ONNS path testing in progress

Definition	The specified port is already in use for ONNS path testing.
Problem or Cause	The command specified an output port that was already in use by ONNS for revertive path testing.
Corrective Action	Enter the command again with the correct port AIDs
Applicable Command(s)	DLT-CRS

SADS Status, Access Unit in Diagnostic State, test access session in progress

Definition	The specified port is already in use for a test access cross-connect.
Problem or Cause	The command specified an input or output port that was already in use for a test access cross-connection. A cross-connection associated with a test access session cannot be deleted until the session is finished. A port can be used to establish only one test access cross-connection.
Corrective Action	Enter the command again with the correct port AIDs
Applicable Command(s)	DLT-CRS, ENT-CRS, CONN-TACC, OPR-LPBK

SAIS Status, Already In Service, bridge input port

Definition	The specified eport_aid or fport_aid is not available.
Problem or Cause	The specified input port was in use as the input port for a bridge cross-connection configuration.
Corrective Action	Determine the correct value for the eport_aid or fport_aid and enter the command again.
Applicable Command(s)	CONN-TACC

SAIS Status, Already In Service, output port unavailable

Definition	The specified output port is not available.
Problem or Cause	The specified test access port is already assigned to a cross-connection.
Corrective Action	Determine the correct value for the output port parameter and enter the command again.
Applicable Command(s)	CONN-TACC

SAPR Status, already in protection state, loopback output port

Definition	A protection switch is already in effect at the loopback output port.
Problem or Cause	A forced protection switch was already in effect at the specified port.
Corrective Action	Enter the command again specifying a port that is not in a forced protection switch condition.
Applicable Command(s)	OPR-LPBK

SAPR Status, already in protection state, output port

Definition	The specified AID is an output port that currently has a forced protection switch in effect.
Problem or Cause	A forced protection switch was already in effect at the specified output port.
Corrective Action	Enter the command again specifying an output port that is not in a forced protection switch condition.
Applicable Command(s)	ENT-CRS, CONN-TACC

SARB Status, All Resources Busy

Definition	There are no resources available.
Problem or Cause	Another instance of the command is already running or the system processing resources are currently insufficient to execute the command.
Corrective Action	Enter the command again later.
Applicable Command(s)	All commands

SCBS Status, Channel BuSy

Definition	The SWIP secondary state cannot be modified when involved in a maintenance cross-connection.
Problem or Cause	The command attempted to modify the Secondary State parameter for a SWIP while the SWIP was in one of the following states: • OOS-MA, UEQ&BUSY • OOS-MA, MT&BUSY
Corrective Action	Delete the maintenance cross-connection and enter the command again with the correct value.
Applicable Command(s)	ED-EQPT

SCBS Status, Channel BuSy

Definition	The specified entity is not available.
Problem or Cause	The command attempted to modify port that was cross-connected.
Corrective Action	Enter the command again for a port that is not cross-connected.
Applicable Command(s)	ED-PORT-LINK

SCBS Status, Channel BuSy

Definition	The specified port is cross-connected.
Problem or Cause	The IFMT, ISTD, and USAGE parameters cannot be modified for a cross-connected port.
Corrective Action	Enter the command again without specifying any of the above parameters.
Applicable Command(s)	ED-rr

SCBS Status, Channel BuSy

Definition	The specified port is cross-connected.
Problem or Cause	The IOPT parameters for a cross-connected port cannot be modified.
Corrective Action	Enter the command again without specifying any of the above parameters.
Applicable Command(s)	ED-rr

SCBS Status, Channel BuSy, associated port is busy

Definition	The specified port is cross-connected.
Problem or Cause	The specified IOPT parameter of a cross-connected output port cannot be modified.
Corrective Action	Determine the correct Optical Cross-Connect Interface slot and enter the command again or delete the cross-connect.
Applicable Command(s)	ED-rr

SCBS Status, Channel BuSy, associated port is busy

Definition	The specified port is Optical Cross-Connect Interface slot has a cross-connected port.
Problem or Cause	The specified Optical Cross-Connect Interface slot cannot be deleted until the associated cross-connection is removed.
Corrective Action	Determine the correct Optical Cross-Connect Interface slot and enter the command again or delete the cross-connect.
Applicable Command(s)	DLT-EQPT

SDNA Status, Duplex Unit Not Available

Definition	The specified SWMG cannot be put out of service unless the other SWMG is in service.
Problem or Cause	The specified SWIP maintenance group cannot be provisioned out of service because the other SWIP maintenance group is not in service.
Corrective Action	Ensure the other SWMG is in service and enter the command again.
Applicable Command(s)	ED-EQPT

SNCC Status, Not Cross-Connected

Definition	The specified cross-connection to be deleted does not exist.
Problem or Cause	At least two of the parts specified are cross-connected but not to each other.
Corrective Action	Enter the command again with the correct port AIDs
Applicable Command(s)	DLT-CRS

SNCC Status, Not Cross-Connected

Definition	The port is not cross-connected.
Problem or Cause	The AUTOMODE parameter of an idle (not cross-connected) input port cannot be modified.
Corrective Action	Enter the correct command again without specifying the AUTOMODE parameter.
Applicable Command(s)	ED-rr

SNCC Status, Not Cross-Connected, input port AID

Definition	The specified cross-connection does not exist.
Problem or Cause	The command specified an input port for which there is no cross-connection leg.
Corrective Action	Determine the correct input port AID and enter the command again.
Applicable Command(s)	DLT-CRS

SNCC Status, Not Cross-Connected, no loopback exists

Definition	The specified loopback does not exist.
Problem or Cause	The command specified an AID for which there no loopback.
Corrective Action	Determine the correct AID and enter the command again.
Applicable Command(s)	RLS-LPBK

SNCC Status, Not-Cross-Connected, output port AID

Definition	The specified cross-connection does not exist.
Problem or Cause	The command specified an output port for which there is no cross-connection leg.
Corrective Action	Determine the correct output port AID and enter the command again.
Applicable Command(s)	DLT-CRS

SNCC Status, Not Cross-Connected, TAM port AID

Definition	The specified cross-connection does not exist.
Problem or Cause	The value specified for the Test Access Monitoring Port AID represents an output port that has no cross-connection leg.
Corrective Action	Enter the command again with the correct value for the TAM AID parameter
Applicable Command(s)	DISC-TACC

SNIS Status, Not In Service

Definition	The specified action is not allowed.
Problem or Cause	The command failed because the Optical Cross-connect Interface circuit pack, system controller protection group, or port associated with the specified AID was not in service.
Corrective Action	Put the Optical Cross-connect Interface circuit pack, system controller protection group, or port associated with the specified AID in service and enter the command again.
Applicable Command(s)	OPR-PROTNSW-FRCD, OPR-PROTNSW-MAN, RLS-PROTNSW-FRCD, RLS-PROTNSW-MAN

SNIS Status, Not In Service

Definition	The specified action is not allowed.
Problem or Cause	The command failed because the target shelf was not in service.
Corrective Action	Put the target shelf in service and enter the command again.
Applicable Command(s)	TEST-LED, TEST-ALM

SNIS Status, Not In Service, eport_aid pack out of service

Definition	The specified action is not allowed.
Problem or Cause	The command failed because the Optical Interface Shelf containing the target circuit pack was not in service.
Corrective Action	Put the Optical Interface Shelf in service and enter the command again.
Applicable Command(s)	CONN-TACC

SNIS Status, Not In Service, fport_aid pack out of service

Definition	The specified action is not allowed.
Problem or Cause	The command failed because the Optical Interface Shelf containing the target circuit pack was not in service.
Corrective Action	Put the Optical Interface Shelf in service and enter the command again.
Applicable Command(s)	CONN-TACC

SNIS Status, Not In Service, high-voltage shelf

Definition	The specified action is not allowed.
Problem or Cause	The command failed because the HVS that is required for the action is not in service.
Corrective Action	Put the HVS in service and enter the command again.
Applicable Command(s)	RLS-LPBK, DISC-TACC, DLT-CRS, CONN-TACC

SNIS Status, Not In Service, OIS shelf

Definition	The specified action is not allowed.
Problem or Cause	The specified eport_aid, fport_aid, taport1, or taport2 was associated with an Optical Interface Shelf that was not in service.
Corrective Action	Put the specified Optical Interface Shelf in service and enter the command again.
Applicable Command(s)	ENT-CRS, OPR-LPBK

SNIS Status, Not In Service, OXI pack

Definition	The specified action is not allowed.
Problem or Cause	The Optical Cross-connect Interface circuit pack associated with a specified AID parameter value was not in service.
Corrective Action	Put the specified Optical Cross-connect Interface circuit pack or the port in service and enter the command again.
Applicable Command(s)	ENT-CRS, OPR-LPBK

SNIS Status, Not In Service, port OOS-MA

Definition	The specified action is not allowed.
Problem or Cause	The port associated with a specified AID parameter value was put out of service manually.
Corrective Action	Put the specified port in service and enter the command again.
Applicable Command(s)	ENT-CRS, CONN-TACC

SNIS Status, Not In Service, switch fabric shelf

Definition	The specified action is not allowed.
Problem or Cause	The SWS that is required to establish or delete a simplex cross-connection leg was not in service.
Corrective Action	Put the switch shelf in service and enter the command again.
Applicable Command(s)	ENT-CRS, DLT-CRS, CONN-TACC, RLS-LPBK, OPR-LPBK

SNIS Status, Not In Service, taport1 pack out of service

Definition	The specified action is not allowed.
Problem or Cause	The command failed because the Optical Interface Shelf containing the target circuit pack was not in service.
Corrective Action	Put the target circuit pack in service and enter the command again.
Applicable Command(s)	CONN-TACC

SNIS Status, Not In Service, taport2 pack out of service

Definition	The specified action is not allowed.
Problem or Cause	The command failed because the Optical Interface Shelf containing the target circuit pack was not in service.
Corrective Action	Put the target circuit pack in service and enter the command again.
Applicable Command(s)	CONN-TACC

SNOS Status, Not manually Out of Service

Definition	The specified entity is not in the proper state.
Problem or Cause	The command attempted to modify the System Configuration parameter or the ONN configuration parameter while the system was not in the OOS-MA state.
Corrective Action	Provision the system in the OOS-MA state and enter the command again.
Applicable Command(s)	ED-EQPT

SNOS Status, Not manually Out of Service

Definition	The specified entity is not in the proper state.
Problem or Cause	The command attempted to delete the SWMG while it was in the IS-NR or OOS-AU state.
Corrective Action	Provision the SWMG manually OOS and then re-enter the command.
Applicable Command(s)	DLT-EQPT

SNOS Status, Not manually Out of Service

Definition	The specified entity is not in the proper state.
Problem or Cause	The specified slot cannot be put in service manually if it was not previously put out of service manually.
Corrective Action	No action required.
Applicable Command(s)	ED-EQPT

SNOS Status, Not manually Out of Service

Definition	The specified entity is not in the proper state.
Problem or Cause	The state of the specified SWIP was in service and cannot be changed unless the port association is removed (that is, execute ED-rr first).
Corrective Action	Remove the port association and enter the command again.
Applicable Command(s)	ED-EQPT

SNOS Status, Not manually Out of Service

Definition	The specified entity is not in the proper state.
Problem or Cause	The specified input port or output port could not be put in service because it was in the OOS-AU, FLT state.
Corrective Action	No action required. Clear port fault and the state of the port will autonomously change to in-service.
Applicable Command(s)	ED-rr

SNOS Status, Not manually Out of Service, ports not manually OOS

Definition	The specified entity is not in the proper state.
Problem or Cause	The command attempted to modify the Primary State parameter for an Optical Cross-connect Interface slot to OOS while one or more of the associated ports were not in an OOS-MA state.
Corrective Action	Provision the ports to OOS-MA and enter the command again.
Applicable Command(s)	ED-EQPT

SNSR Status, No Switch Request outstanding

Definition	The specified switch does not exist.
Problem or Cause	The command specified the release of a protection switch that was not in effect.
Corrective Action	None
Applicable Command(s)	RLS-PROTNSW-FRCD, RLS-PROTNSW-MAN

SNSR Status, No Switch Request outstanding

Definition	No manual or forced switch exists for the specified port.
Problem or Cause	The command attempted to release a protection switch that did not exist.
Corrective Action	None
Applicable Command(s)	RLS-PROTNSW-FRC, RLS-PROTNSW-MAN

SNVS Status, Not in Valid State

Definition	The state of the specified entity is not in the proper state.
Problem or Cause	The command attempted to modify the Secondary State parameter for a SWIP while it was in one of the following states: • OOS-MA, FLT&MEA • OOS-MA, UAS&MEA • OOS-MA, UAS
Corrective Action	No action required. Do not specify a secondary state for this SWIP.
Applicable Command(s)	ED-EQPT

SNVS Status, Not in Valid State

Definition	The state of the specified entity is not valid.
Problem or Cause	The command attempted to modify the Secondary State parameter for a SWIP to one of the following: • FLT, when the SWIP is in the OOS-MA, UEQ state • UEQ, when the SWIP is in the OOS-MA, FLT state
Corrective Action	Provision the SWIP to the MT state first and enter the command again with the correct value.
Applicable Command(s)	ED-EQPT

SNVS Status, Not in Valid State

Definition	The state of the specified entity is invalid
Problem or Cause	The command attempted to modify the Primary State parameter for an optical cross-connect interface slot while the slot was in a state other than the following: • IS-NR • OOS-AU, UEQ • OOS-AU, FLT • OOS-MA
Corrective Action	No action required. Cannot provision OXI state in current state.
Applicable Command(s)	ED-EQPT

SNVS Status, Not in Valid State

Definition	The state of the specified entity is invalid
Problem or Cause	The specified PM profile to be deleted has ports provisioned to use it or the PM profile was disabled by the user.
Corrective Action	Enter the command again with the correct value for the PM profile.
Applicable Command(s)	DLT-PM-PROF, INIT-REG

SNVS Status, Not in Valid State

Definition	The state of the specified entity is invalid
Problem or Cause	The current primary state of the system was other than OOS-MA
Corrective Action	Change the primary state of the system to OOS-MA and enter the command again.
Applicable Command(s)	CPY-MEM

SNVS Status, Not in Valid State

Definition	The state of the specified entity is invalid.
Problem or Cause	The command specified a software image that is already installed.
Corrective Action	No action is required.
Applicable Command(s)	APPLY

SNVS Status, Not in Valid State

Definition	The state of the specified entity is invalid.
Problem or Cause	The command requested log entries, but none were found for the specified parameters.
Corrective Action	No action is required.
Applicable Command(s)	RTRV-LOG, RTRV-LOG-USER, RTRV-LOG-PROTNSW, RTRV-LOG-ALM, RTRV-LOG-SECU, RTRV-LOG-NTFCN

SNVS Status, Not in Valid State, forced loopback in NE

Definition	The loopback type in the network element is a forced loopback.
Problem or Cause	The command specified a normal loopback type but the loopback type in the Network Element was forced.
Corrective Action	Enter the command again specifying the correct value for the looptype type.
Applicable Command(s)	RLS-LPBK

SNVS Status, Not in Valid State, normal loopback in NE

Definition	The loopback type in the network element is a normal loopback.
Problem or Cause	The command specified a forced loopback type but the loopback type in the Network Element was normal.
Corrective Action	Enter the command again specifying the correct value for the looptype type.
Applicable Command(s)	RLS-LPBK

SNVS Status, Not in Valid State, not in unequipped state

Definition	The specified Optical Cross-connection Interface slot or Personality Mode slot is not unequipped.
Problem or Cause	The command attempted to delete an Optical Cross-connection Interface slot or Personality Mode slot that was still equipped.
Corrective Action	Extract the Optical Cross-connection Interface circuit pack or Personality Module circuit pack and enter the command again.
Applicable Command(s)	DLT-EQPT

SNVS Status, Not in Valid State, PM disabled

Definition	PM is disabled for the specified PARM.
Problem or Cause	The specified Parameter had PM disabled.
Corrective Action	Enter the command specifying the correct PARM.
Applicable Command(s)	ED-rr

SNVS Status, Not in Valid State, SWIP is unassigned

Definition	The specified SWIP association parameter has no current SWIP assignment.
Problem or Cause	The INSWIP0, INSWIP1, OUTSWIP0, and OUTSWIP1 parameters cannot be assigned to a SWIP when their current value is UAS (unassigned).
Corrective Action	Enter the command again without specifying SWIP association parameter.
Applicable Command(s)	ED-rr

SNVS Status, Not in Valid State, port OOS-MA

Definition	The specified input or output port has a missing SWIP assignment.
Problem or Cause	The specified port is in an out of service state.
Corrective Action	Enter the command again when the port is in the proper state.
Applicable Command(s)	RTRV-PM, INIT-REG

SRCN Status, Requested Condition already exists

Definition	The requested loopback or protection switch is already in effect.
Problem or Cause	The command specified an input port that already has a loopback established or the specified port already has a manual or forced protection switch established or already has a loopback established.
Corrective Action	None
Applicable Command(s)	OPR-PROTNSW-FRCD, OPR-PROTNSW-MAN, OPR-LPBK

SROF Status, Requested Operation Failed

Definition	The requested operation could not be completed successfully.
Problem or Cause	The command failed due to an internal software or hardware problem.
Corrective Action	Resolve the problem and enter the command again.
Applicable Command(s)	All commands

SROF Status, Requested Operation Failed, invalid snip value

Definition	The SNIP ID is not valid.
Problem or Cause	There was a SNIP ID mismatch between the calibration files and hardware.
Corrective Action	Use “Task 203: Clearing Switch Shelf SNIP ID Mismatch (DATAFLT)” (8-22) to correct this problem.
Applicable Command(s)	CPY-NVM

SRQN Status, ReQuest Not valid

Definition	The specified request is invalid.
Problem or Cause	The system configuration could not be modified because the hardware configuration was inconsistent with the type of configuration.
Corrective Action	Ensure that the specified system configuration is consistent with the hardware configuration and enter the command again.
Applicable Command(s)	ED-EQPT

SRQN Status, ReQuest Not valid

Definition	The specified request is invalid.
Problem or Cause	The specified port already has a manual or forced protection switch established.
Corrective Action	Ensure that the specified port is in an appropriate state before attempting to release a forced or manual protection switch and enter the command again.
Applicable Command(s)	RLS-PROTNSW-MAN, RLS-PROTNSW-FRCD

SRQN Status, ReQuest Not valid, cannot change test mode

Definition	The specified request is invalid.
Problem or Cause	The command specified a MONE, MONF, or MONEF test mode for a 2-way cross-connection when a MONE or a MONF test mode already exists.
Corrective Action	None.
Applicable Command(s)	CONN-TACC

SRQN Status, ReQuest Not valid, cross-connection rule violated

Definition	The requested cross-connection violated cross-connection rules.
Problem or Cause	The specified leg of a new 2-way connection cannot be used to form both bridge and merge configuration. Refer to the LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 <i>Operations and System Engineering Guide</i> for cross-connection rules.

Corrective Action	Enter the command again following the cross-connection rules.
Applicable Command(s)	ENT-CRS

SRQN Status, ReQuest Not valid, DOS at input port

Definition	The specified input port is currently detecting signal at the input power monitors.
Problem or Cause	The AUTOMODE parameter cannot be modified to ENABLE when the signal status at the input port power monitor is DOS (Detection Of Signal).
Corrective Action	Enter the command again without specifying the AUTOMODE parameter.
Applicable Command(s)	ED-rr

SRQN Status, ReQuest Not valid, hierarchy not satisfied

Definition	The entity specified for deletion cannot be deleted.
Problem or Cause	The shelf specified for deletion had existing slots.
Corrective Action	Delete the existing slots and enter the command again.
Applicable Command(s)	DLT-EQPT

SRQN Status, ReQuest Not valid, invalid system transition

Definition	The specified SYSCFG parameter is not valid.
Problem or Cause	The System Configuration parameter was specified as CD2 when the SYSCFG parameter was DD2.

Corrective Action	No action required. A DD2 system cannot be provisioned to a CD2 system.
Applicable Command(s)	ED-EQPT

SRQN Status, ReQuest Not valid, minimal equipage violation

Definition	The SWMG specified for deletion cannot be deleted.
Problem or Cause	The SWMG specified for deletion is the last one and cannot be deleted.
Corrective Action	Ensure that another SWMG exists and enter the command again.
Applicable Command(s)	DLT-EQPT

SRQN Status, ReQuest Not valid, not a 2-way configuration

Definition	The specified request is invalid.
Problem or Cause	The AIDs specified by taport1 and taport2 were not part of the same 2-way configuration.
Corrective Action	Enter the command again with the correct values for the taport1 and taport2 parameters.
Applicable Command(s)	DISC-TACC, CONN-TACC

SRQN Status, ReQuest Not valid, no test access cross-connection

Definition	The request to delete a test access cross-connection is invalid.
Problem or Cause	The specified output port AID is not associated with a test access cross-connection.
Corrective Action	Enter the command again with the correct value for the test access cross-connection output port.
Applicable Command(s)	DISC-TACC

SRQN Status, ReQuest Not valid, port objects exist

Definition	The request to provision a SWIP block is not valid.
Problem or Cause	The command specified a SWIP block parameter when ports existed within the port group being modified.
Corrective Action	None
Applicable Command(s)	ED-EQPT

SRQN Status, ReQuest Not valid, signal injection denied, DOS condition

Definition	The specified request is invalid.
Problem or Cause	The command requested signal injection at an OEO eport or fport when a Detection of Signal (DOS) condition exists at the port. For 2-way signal injection, the request will be denied if either eport or the fport has a DOS condition.
Corrective Action	None
Applicable Command(s)	CONN-TACC

SRQN Status, ReQuest Not valid, signal injection denied, transparent port

Definition	The specified request is invalid.
Problem or Cause	The command requested signal injection at a transparent port. For 2-way signal injection, the request will be denied if either eport or the fport is a transparent port.
Corrective Action	None
Applicable Command(s)	CONN-TACC

SRQN Status, ReQuest Not valid, Superuser uid

Definition	The request to delete a superuser is invalid.
Problem or Cause	The specified user identifier is a superuser and cannot be deleted.
Corrective Action	None
Applicable Command(s)	DLT-USER-SECU

SRQN Status, ReQuest Not valid, SWIP block is not free

Definition	The specified SWIP block is not free.
Problem or Cause	The specified SWIP block cannot be assigned because it is not unassigned and unreserved.
Corrective Action	Enter the command again specifying a SWIP block that is free.
Applicable Command(s)	ED-EQPT, ENT-EQPT

SRQN Status, ReQuest Not valid, SWIP not in valid state

Definition	The specified port can be associated only with spare SWIPs.
Problem or Cause	The INSWIP0, INSWIP1, OUTSWIP0, and OUTSWIP1 parameters cannot be assigned SWIPS that are not in the OOS-MA, UEQ state.
Corrective Action	Determine the correct spare SWIP and enter the command again.
Applicable Command(s)	ED-rr

SRQN Status, ReQuest Not valid, SWIP not in valid state

Definition	The specified SWIP is not in a valid state.
Problem or Cause	The SPARESWIP parameter specifies a SWIP that is not in the OOS-MA, UAS state.
Corrective Action	Enter the command again specifying a SWIP in the SPARESWIP parameter with the correct state.
Applicable Command(s)	ED-EQPT

SSPN Status, SPeed selected is Not correct, incompatible transport and OEO ports

Definition	The selected speeds are not compatible.
Problem or Cause	The specified input and output ports have incompatible rates.
Corrective Action	Ensure that the input port and output port rates are compatible and enter the command again.
Applicable Command(s)	OPR-LPBK, ENT-CRS, CONN-TACC

SSPN Status, SPeed is Not correct, incompatible OEO ports

Definition	The specified port AIDs have incompatible speeds or standards.
Problem or Cause	The specified input and output ports have incompatible rates.
Corrective Action	Ensure that the input port and output port rates are compatible and enter the command again.
Applicable Command(s)	ENT-CRS, CONN-TACC, OPR-LPBK

SSPN Status, SSpeed is Not correct, incompatible transparent ports

Definition	The selected speeds are not compatible.
Problem or Cause	The specified input and output ports have incompatible rates.
Corrective Action	Ensure that the input port and output port rates are compatible and enter the command again.
Applicable Command(s)	OPR-LPBK, ENT-CRS, CONN-TACC

SSRD Status, Switch Request Denied

Definition	The requested switch was not completed.
Problem or Cause	The specified port has a higher priority switch request, either automatic or forced, already active.
Corrective Action	None
Applicable Command(s)	OPR-PROTNSW-MAN

SSRE Status, System Resources Exceeded

Definition	There are insufficient system resources to complete the request.
Problem or Cause	The request to add another user failed because the maximum number of users already exists or the request to copy memory failed because the specified destination lacked sufficient storage capacity.
Corrective Action	Ensure that there are adequate system resources and enter the command again.
Applicable Command(s)	CPY-MEM, CPY-NVM

SSRE Status, System Resources Exceeded, number of OA packs exceeded

Definition	There are insufficient system resources to complete the request.
Problem or Cause	The command attempted to create an optical cross-connect interface circuit pack with a type parameter of OXIA13 or OXIA15 on a T-type OIS that had 16 or more associated circuit pack objects of type OXI4A13 and OXI4A15.
Corrective Action	None
Applicable Command(s)	ENT-EQPT

SSRE Status, System Resources Exceeded, system capacity exceeded

Definition	There are insufficient system resources to complete the request.
Problem or Cause	The command attempted to assign more SWIP blocks than are currently available. LambdaRouter™ AOS 128 has 7 SWIP blocks per SWMG. LambdaRouter™ AOS 256 has 14 SWIP blocks per SWMG.
Corrective Action	Determine the maximum amount of SWIP blocks that can be used and assign up to that number.
Applicable Command(s)	ENT-EQPT

SWFA Status, Working unit Failed

Definition	The specified entity has a fault condition.
Problem or Cause	The specified entity cannot be put into service if it is in the OOS-MA state and is also failed.
Corrective Action	Clear the fault condition and enter the command again.
Applicable Command(s)	ED-EQPT

SWFA Status, Working unit Failed, failure to update NVM

Definition	The NVM cannot be updated.
Problem or Cause	The attempt to modify a PM profile failed to update the NVM.
Corrective Action	Ensure that the primary and secondary NVM circuit packs are properly seated in their slots and enter the command again.
Applicable Command(s)	ED-PM-PROF





4 Alarm Messages and Trouble-Clearing Tasks Background

Overview

Purpose This chapter supplies background information that may be helpful to the operator's understanding of certain tasks. This information is given here and not in the task chapters because the information is not required to perform the task.

Contents This chapter contains the following sections:

Task 301: Clearing Unexpected, Illegal, or Unknown Circuit Pack (CPINV/PRCDRERR)	4 - 2
Task 305: Clearing Non-Volatile Memory Wearout (NVMW)	4 - 3
Task 315: Clearing Output Port Loss of Signal (CTNEQPT-LOS)	4 - 4
Task 318: Clearing Switch Interface Point Suspect (CTNEQPT)	4 - 6



Task 301: Clearing Unexpected, Illegal, or Unknown Circuit Pack (CPINV/PRCDRERR)

Background Each circuit pack in the LambdaRouter™ All Optical Switch (AOS) 128/256 has an Electrically Erasable Programmable Read Only Memory (EEPROM) chip that contains information about the circuit pack, including the circuit pack type. When the circuit pack is inserted, that circuit pack type information is compared to the system information for that slot. If the EEPROM circuit type cannot be read, or if it does not match the value expected for that slot, then the Unexpected, Illegal, or Unknown Circuit Pack alarm message is generated.



Task 305: Clearing Non-Volatile Memory Wearout (NVMW)

Background Flash EEPROM, a variant of electrically erasable programmable ROM, is used to implement Non-volatile Memory (NVM). NVM is quickly programmable and does not lose the data when power is off. There are restrictions on the number of times the NVM can be used to store information. When read-write operations exceed a certain number, the NVM becomes unusable. When that happens, the Non-volatile Memory Wearout alarm message is generated.

The NVM lifetime is vendor-dependent.



Task 315: Clearing Output Port Loss of Signal (CTNEQPT-LOS)

Background The procedure for clearing an output port loss of signal condition is a process of determining whether it is a single-sided or double-sided failure and eliminating possible causes until the alarm condition clears. This procedure is divided into supporting elements (SEs). SE 315-1 through SE 315-3 address the single-sided LOS case and SE 315-4 through SE 315-6 deal with the double-sided LOS case. The tables in SE 315-7 and SE 315-8 apply to both cases.

A summary of each supporting element follows:

- SE 315-1: Determining ports and SWIPs involved with single-sided output port LOS alarm (9-68) — Ascertains the AID of input and output ports plus the Interface Format (IFMT) and Interface Optics (IOPT) for the transparent ports. Also, determines the Switch Interface Points (SWIPs) involved with the LOS condition.
- SE 315-2: Checking condition of HVDAC circuit packs and cables (9-72) — Verifies that the HVDAC circuit packs containing the source input port and the alarmed output port have no physical damage and are properly seated.
- SE 315-3: Cleaning fiber connectors and replacing circuit packs and SWIPs (9-76) — Directs that the SWIP connectors are cleaned and the associated HVDAC circuit packs are replaced, if connector cleaning fails.
- SE 315-4: Determining ports and SWIPs involved with double-sided output port LOS alarm (9-86) — Ascertains the AID of input and output ports plus the Interface Format (IFMT) and Interface Optics (IOPT) for the SWIPs involved with the LOS condition.
- SE 315-5: Checking Condition of HVDAC Circuit Packs and Cables (9-89) — Verifies that the HVDAC circuit packs containing the source input port and the alarmed output port have no physical damage and are properly seated.
- SE 315-6: Cleaning fiber connectors and replacing circuit packs and SWIPs (9-93) — Directs that the SWIP connectors are cleaned and the associated HVDAC circuit packs are replaced, if connector cleaning fails.

- SE 315-7: Interface Formats, Optics, and Associated Power Levels Table (9-104)—Provides minimum levels of signals expected at the end of the input SWIP cable and at the output SWIP.
- SE-315-8: SWIP Association to HVDAC Circuit Pack Table (9-106)—Shows the association between the connector on an HVDAC circuit pack and a SWIP.



Task 318: Clearing Switch Interface Point Suspect (CTNEQPT)

Background The task for clearing a Switch Interface Point Suspect (CTNEQPT) condition involves tracing an optical cable from the SWIP connector on the FDP to the associated port. Use the descriptions of the types of optical cables used in the LambdaRouter TM AOS in the following sections to assist in tracing an optical cable.

Two types of optical cables are used in the LambdaRouter TM AOS. They are

- SI-T cables
- SI-S cables

Both cables types have cable labels at both the optical interface shelf end and FDP end. At the FDP, the cable labels can be observed in the fiber organizers where the labels wrap around the individual fibers belonging to that cable. At the optical interface shelves, the cable labels can be observed at the backplane on the yellow cables themselves.

SI-T cables Cables used to connect OXI transparent and OA ports to the FDP have an MPX connector at the optical interface shelf backplane and an LC connector at the FDP. This cable type is referred to as an SI-T cable. Each SI-T cable carries 8 fibers, corresponding to one MPX connector enclosing 8 fiber ends at the optical interface shelf backplane, and eight separate LC connectors at the FDP.

An SI-T cable derived fiber and connector for OXI transparent and OA ports as observed at the FDP is characterized by:

- A blue (output port) or white (input port) fiber jacket color that runs the entire length of the fiber
- A short yellow sheath
- A color band on the yellow sheath at the connector, where the color indicates a port number
 - Blue for port 1
 - Orange for port 2
 - Green for port 3
 - Brown for port 4
- The grey connector

As an example, at the FDP, an SI-T cabled derived fiber connected to an input SWIP will have a white fiber jacket color. If that particular fiber has a brown color band on the yellow sheath at the connector, then the fiber is connected by an MPX connector interface to input port 4 on an OXI transparent circuit pack.

SI-S cables Cables used to connect OXI-10GC or OXI-2GC optical-electrical-optical (OEO) ports to the FDP have LC connectors at both the optical interface shelf backplane and the FDP. This cable type is referred to as an SI-S cable. Each SI-S cable carries 32 fibers, corresponding to one SI-S connector enclosing 32 fiber ends at the optical interface shelf backplane, and 32 separate LC connectors at the FDP.

An SI-S cable derived fiber and connector for OEO ports as observed at the FDP is characterized by:

- One of 16 fiber jacket colors that runs the entire length of the fiber, where available colors are:
 - Blue
 - Orange
 - Green
 - Brown
 - Slate
 - White
 - Red
 - Yellow
 - Violet
 - Rose
 - Aqua
 - Peach
 - Sand
 - Teal
 - Magenta
 - Lime
- A short blue (output port) or white (input port) sheath at the connector
- the grey connector

As an example, at the FDP, an SI-S cable derived fiber connected to an input SWIP will have a white sheath at the connector. If that particular fiber has a brown jacket, then the OEO port to which the fiber is connected can be traced, in part, by looking for a brown jacket at the OEO shelf backplane.





5 Supporting Tasks Background

Overview

Purpose This chapter supplies background information that may be helpful to the operator's understanding of tasks that are performed in support of trouble-clearing tasks or as routine maintenance tasks. This information is given here and not in the tasks themselves because it is not needed to perform the task.

Contents This chapter contains the following sections:

Supporting Tasks	5 - 2
Routine Maintenance Tasks	5 - 3
Task 500: Assigning and Cabling a Spare SWIP to a Port	5 - 4
Task 501: Cleaning LC and MPX and Connectors	5 - 7



Supporting Tasks

- Description** A supporting task is a separate task that is referred to by one or more trouble-clearing tasks. A supporting task may also be referred to by a recovery task or used as a routine maintenance task.
- A supporting task should only be executed when directed by another task or as a routine maintenance task. Once a supporting task is complete, return to the original task and complete any remaining steps.
- Background** Background information for supporting tasks that need it is located later in this chapter. Entries in this chapter are listed by task number and title.

Routine Maintenance Tasks

Description Routine maintenance tasks are intended to be preventative and are performed at regular intervals. Some of the Supporting Tasks are also routine maintenance tasks. The table below lists the routine maintenance tasks and the intervals at which they should be performed. All Supporting Tasks are included in Chapter 11, Supporting Tasks.

Use the information in this table to plan and schedule routine maintenance tasks.

Recommended Interval	Task Number and Title	Remarks
Before a port unit is inserted	Task 501: Cleaning LC and MPX Connectors (11-8)	None
Each time a fiber is connected to the network element	Task 501: Cleaning LC and MPX Connectors (11-8)	Both ends of the connection should be cleaned.
Every 6 months	Task 519: Replacing a Fan Filter (11-95)	The Fan Filter alarm LED illuminates when it is time to change the filter.



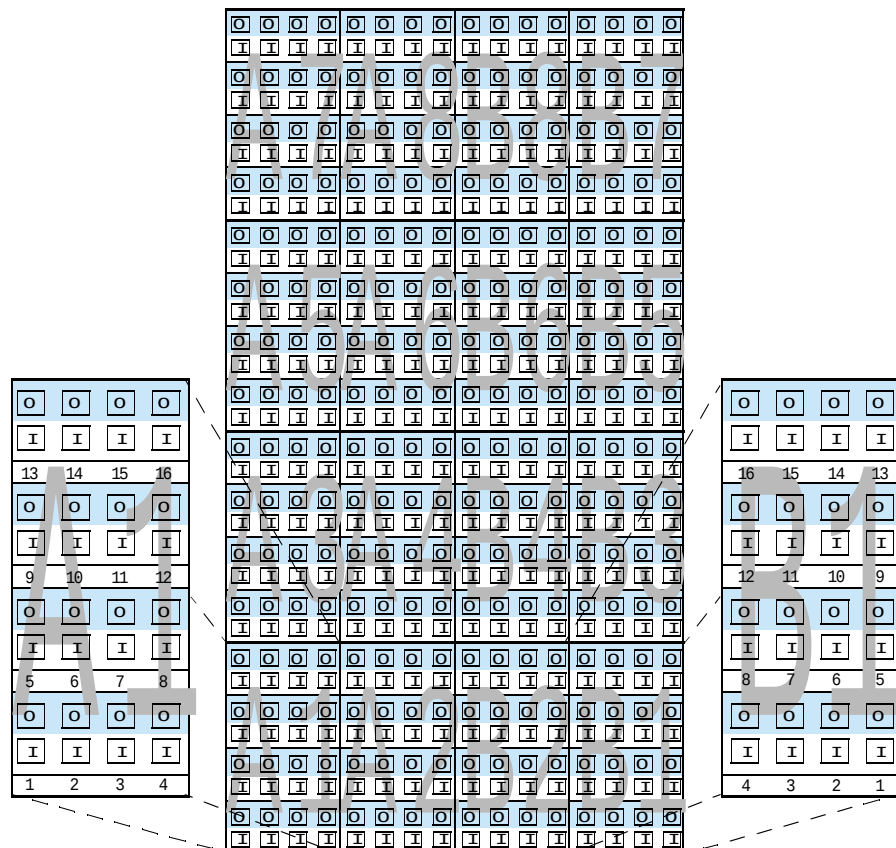
Task 500: Assigning and Cabling a Spare SWIP to a Port

Description The LambdaRouter™ All Optical Switch (AOS) 128/256 provides additional Switch Interface Points (SWIPs) in the event of SWIP failure. This section provides guidelines for assigning spare SWIPs.

Spare SWIPs The Switch Shelf (SWS) provides spare ingress SWIPs and spare egress SWIPs for each fabric. Spare SWIPs are unassigned, healthy SWIPs. Spare SWIPs have a primary state of Out of service - Management (OOS-MA) and a secondary state of Unequipped (UEQ).

In the LambdaRouter™ AOS 128, spare SWIPs must be selected from the same SWS half, A side or B side, as the failed SWIP.

In the LambdaRouter™ AOS 256, spare SWIPs must be selected from the same SWS as the failed SWIP.



NC-LR162

The diagram above shows the location of SWIP blocks. SWIP blocks are labeled A1 through A8 and B1 through B8. Each SWIP block provides 16 egress SWIPs and 16 ingress SWIPs.

Assignment rules

For spare SWIP assignment, some rules must be followed in order to maintain the organization of the fibers at the FDP and ensure that spare blocks are assigned properly.

The rules for assigning spare SWIPs are two-fold:

- SWIP block assignment priority
- Minimize distance and tangle

SWIP block assignment priority

The following lists the SWIP blocks in the order in which they must be used for spare SWIP assignment:

1. Reserved SWIP blocks
2. Free SWIP blocks
3. Assigned SWIP blocks

A SWIP block is considered to be *reserved* when it is not assigned and at least one of its SWIPs is in one of the following states:

- IS-NR
- OOS-MA, FLT & MEA
- OOS-MA, UAS & MEA
- OOS-MA, MT
- OOS-MA, MT & BUSY

When all the functioning SWIPs in reserved blocks are assigned to ports, use spare SWIPs in *free* blocks. A free SWIP block is unassigned and not reserved, thereby containing SWIPs only in the following states:

- OOS-MA, UEQ
- OOS-MA, UEQ & BUSY
- OOS-MA, FLT
- OOS-MA, UAS

When no free blocks exist and all the functioning SWIPs in reserved blocks are assigned to ports, use spare SWIPs in *assigned* blocks. An assigned SWIP block is a SWIP block that has been assigned to an Optical Interface Shelf (OIS). The spare SWIPs located in assigned blocks should only be used after all other functioning spare SWIPs from free and reserved blocks have been depleted.

Minimize distance and tangle

Minimize distance between the spare SWIP and the failed SWIP by using the SWIP block, determined above, that is closest to the failed SWIP. For example, when a faulty SWIP is discovered in SWIP block A1 and blocks A4 and A8 are reserved, use the nearest spare SWIP in block A4 to replace it. This also reduces the likelihood of tangled fibers.



Task 501: Cleaning LC and MPX and Connectors

Background Proper cleaning eliminates exposure to dirt that may cause permanent damage to connectors. Once a connector has been permanently damaged, cleaning will not repair the damage. A damaged connector is suspected when power remains low in the system despite rigorous cleaning. Therefore, proper cleaning is critical. If a connector is damaged, it must be replaced. Typically, both ends of the connector become damaged. This damage may be caused when connectors are engaged or disengaged while significant optical power, greater than 3.0 dBm, is present in the connection.

The procedure in this manual is the Lucent recommended method for cleaning and inspecting optical fibers and connectors using specific tools and materials that have proven to be effective in the assembly and testing of optical transmission equipment. Refer to the Required Tools and Equipment List in Chapter 2, Alarm Messages and Trouble-Clearing Introduction and in Task 501: Cleaning LC and MPX Connectors (11-8).

This procedure is recommended for connector ferrules 2.5 mm and 1.25 mm in diameter associated with ST, SC, FC, LC, and MPX connectors. The ferrule of a fiber optic connector consists of a ceramic or stainless steel cylinder with a hole running longitudinally down the center of its axis, allowing enough tolerance for a fiber to pass through.

Wet/dry method

The Wet/Dry method is used in this procedure. This method first applies a wet solvent, such as high purity alcohol, to the connector endface to dissolve and remove any organic particulate or oily films. This is followed by a dry double-clean wipe using the CLETOP cleaning cassette.

Inspection of optical connectors

After cleaning a connector, the ferrule endface must be inspected to ensure that it is free from any particulate contamination. A Westover FBP-S3 fiberscope probe is recommended for inspecting optical connectors. Exercise extreme caution when using a video fiberscope. Once a connector is cleaned it must be protected by immediate insertion into an adapter or covered with a connector dust cap.

LC connector inspection criteria table

The following table contains the inspection criteria by type of defect and area of the ferrule endface of an LC connector. The areas of the ferrule endface are identified in the diagram following this table.

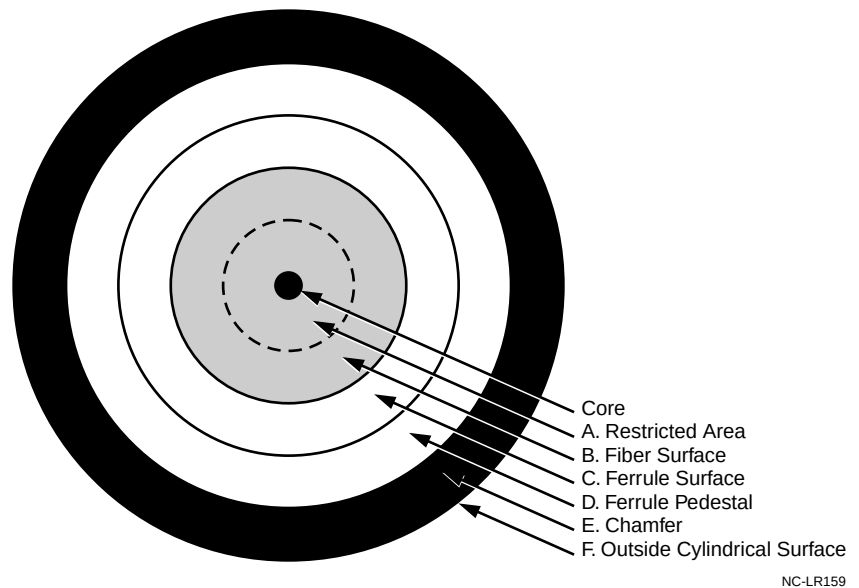
Defect Type	A. Restricted Area	B. Fiber Surface	C. Ferrule Surface	D. Ferrule Pedestal, E. Chamfer, and F. Outside Cylindrical Surface
Crack	Not acceptable	No cracks allowed where if extended it intersects with the core.	Not applicable	Not applicable for polished end.
Chip	Not acceptable	One defect up to 10 microns in diameter is acceptable. Defects smaller than 2 microns are acceptable.	Multiple defects less than 10 microns each are acceptable, but they must not touch the fiber edge. Defects smaller than 2 microns are acceptable. The sum of all defect types must be less than 30 microns.	Not applicable for polished end.

Defect Type	A. Restricted Area	B. Fiber Surface	C. Ferrule Surface	D. Ferrule Pedestal, E. Chamfer, and F. Outside Cylindrical Surface
Pin Holes or Voids	Not applicable	Not applicable	Multiple defects less than 10 microns each are acceptable, but they must not touch the fiber edge. Defects smaller than 2 microns are acceptable. The sum of all defect types must be less than 30 microns.	Not applicable for polished end.
Scratches on Single Mode Fiber	No scratches in the core. Tangent to the core is acceptable, if less than 2 microns wide.	Scratches less than 2 microns wide are acceptable.	Not applicable	Not applicable
Ferrule Scratches	Not applicable	Not applicable	Scratches less than 2 microns wide are acceptable.	Acceptable
Epoxy Ring	Not applicable	Epoxy ring is acceptable if the width is less than 5 microns. No loose edge chipping.	Not applicable	Not applicable

Defect Type	A. Restricted Area	B. Fiber Surface	C. Ferrule Surface	D. Ferrule Pedestal, E. Chamfer, and F. Outside Cylindrical Surface
Fixed Contamination or Black Spots	Not acceptable	One defect up to 10 microns in diameter is acceptable. Defects less than 2 microns wide are acceptable.	Multiple defects less than 10 microns each are acceptable, but they must not touch the fiber edge. Defects smaller than 2 microns are acceptable. The sum of all defect types must be less than 30 microns.	Acceptable
Raised Contamination	Not acceptable	Not acceptable	Not acceptable	Acceptable provided that the protrusion does not prohibit face-to-face contact of the connectors.
Loose Contamination	Not acceptable	Not acceptable	Not acceptable	Acceptable

LC connector ferrule endface diagram

The following diagram shows the ferrule endface of an optical fiber LC connector.



The restricted area is 66 microns in diameter and the core is 8 microns in diameter.

MPX connector inspection criteria table

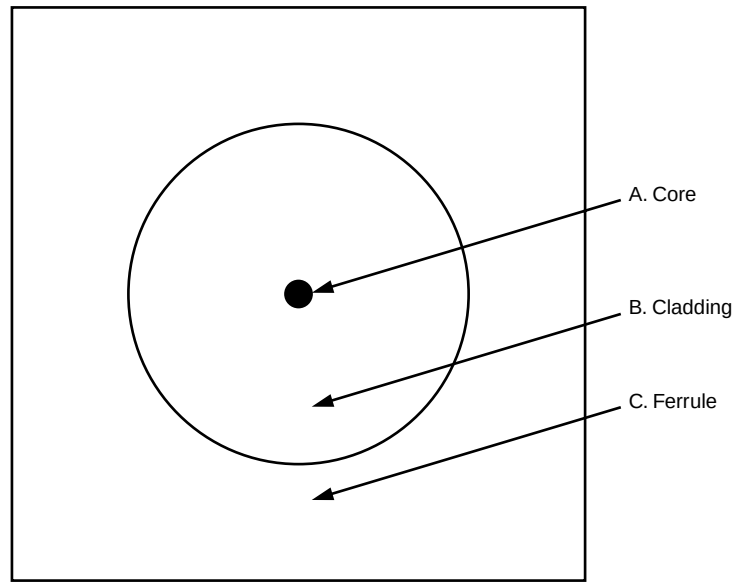
The following table contains the inspection criteria by type of defect and area of the ferrule endface of an MPX connector. The areas of the ferrule endface are identified in the diagram following this table.

Defect Type	A. Core	B. Cladding	C. Ferrule Surface
Crack	Not acceptable	Not acceptable	Not applicable
Chip	Not acceptable	One defect up to 10 microns in diameter is acceptable. Defects smaller than 5 microns are acceptable.	Multiple defects less than 10 microns each are acceptable, but they must not touch the fiber edge. Defects smaller than 2 microns are acceptable. The sum of all defect types must be less than 30 microns.
Pin Holes or Voids	Not applicable	Not applicable	Multiple defects less than 10 microns each are acceptable, but they must not touch the fiber edge. Defects smaller than 2 microns are acceptable. The sum of all defect types must be less than 30 microns.
Scratches on Single Mode Fiber	Not acceptable	Tangent to the core are acceptable, if less than 3 microns wide.	Not applicable

Defect Type	A. Core	B. Cladding	C. Ferrule Surface
Ferrule Scratches	Not applicable	Not applicable	Not applicable
Epoxy Ring	Not applicable	Epoxy ring is acceptable if the width is less than 5 microns. No loose edge chipping.	Not applicable
Fixed Contamination or Black Spots	Not acceptable	One defect up to 10 microns in diameter is acceptable. Defects less than 2 microns wide are acceptable.	Multiple defects less than 10 microns each are acceptable, but they must not touch the fiber edge. Defects smaller than 2 microns are acceptable. The sum of all defect types must be less than 30 microns.
Protrusion	Not acceptable	Not acceptable	Not acceptable
Loose Contamination	Not acceptable	Not acceptable	Not acceptable

MPX connector ferrule endface diagram

The following diagram shows the ferrule endface of an optical fiber MPX connector.



NC-LR161



6 Recovery Tasks Background

Overview

Purpose This chapter provides background information on recovery procedures, which address failures that are not covered by Trouble-Clearing Tasks. This information is given here and not in the tasks themselves because it is not required to perform the task.

Contents This chapter contains the following sections:

Recovery Tasks	6 - 2
Task 602: Recovering From Failure of Both DCCs	6 - 3
Task 606: Recovering from System Power Failure	6 - 4



Recovery Tasks

Description Recovery tasks address failures that are outside the scope of alarm messages, such as failure of both SYS50Ds and system power failures.

Task 602: Recovering From Failure of Both DCCs

Background When both DCC circuit packs fail, the system loses all communication with the OCI and external managing systems. Although alarms are generated for both DCCs, the alarms will not be communicated to the user due to the nature of the failure. However, the alarms will be recorded in the alarm log. One or both of the DCC circuit packs must be replaced in order to restore user communications with the system.

Note that the symptom of double DCC failure, lack of any communications with the system, is similar to that of a double SYS50D failure.



Task 606: Recovering from System Power Failure

Background When power to the LambdaRouter™ All Optical Switch (AOS) 128/256 is cut, then restored, the system automatically returns to normal operation. This means that the following are restored from the last backup to NVM:

- Same set of cross-connections
- Identical units in and out of service
- Set of alarm messages that is consistent with current state of the system

The alarm message set includes a clear message for any alarm message generated before the failure and cleared during the outage. It also includes any alarm message that was generated during the outage and persists after the system resumes operation.



7 Control Communication Network Alarm Messages and Trouble-Clearing Tasks

Overview

Purpose This chapter includes trouble-clearing tasks for control communications network alarm messages.

Contents This chapter contains the following sections:

Task 100: Clearing AIS-L/AIS-MS (CCN-AIS-L)	7 - 2
Task 101: Clearing Bit Error Rate B2 (CCN-BER)	7 - 3
Task 102: Clearing Excessive Bit Error Rate B2 (CCN-EBER)	7 - 4
Task 103: Clearing Inconsistent Neighbor Data (INCON-NBR-OUT, INCON-NBR-IN)	7 - 5
Task 104: Clearing Initialization Error (PROGFLT)	7 - 9
Task 105: Clearing Link Integrity Failure (PLKTERM)	7 - 14
Task 106: Clearing Loss of Frame (CCN-LOF)	7 - 16
Task 107: Clearing Mapper LOS (CCN-MLOS)	7 - 17
Task 108: Clearing No OSPF Port (MAN-OSPF)	7 - 18
Task 109: Clearing Optical LOS (CCN-LOS)	7 - 22



Task 100: Clearing AIS-L/AIS-MS (CCN-AIS-L)

Purpose Use this procedure to clear an incoming loss of Alarm Indication Signal-Line (AIS-L)/Alarm Indication Signal-MS (AIS-MS) condition. This alarm message indicates that the incoming signal has valid SONET/SDH Section/Regenerator Section overhead and otherwise is composed of all ones.

Before you begin Before beginning this task:

- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear an AIS-L/AIS-MS condition.

-
- 1 The source of the alarm condition is not the LambdaRouter TM AOS.

END OF STEPS



Task 101: Clearing Bit Error Rate B2 (CCN-BER)

Purpose Use this procedure to clear a bit error rate B2 condition. This alarm message indicates that the line bit error rate B2 (CCN-BER) threshold has been crossed.

Before you begin Before beginning this task:

- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear a bit error rate B2 condition condition.

-
- 1** The source of the alarm condition is not the WaveStar LambdaRouter 128/256.

END OF STEPS



Task 102: Clearing Excessive Bit Error Rate B2 (CCN-EBER)

Purpose Use this procedure to clear an excessive bit error rate B2 condition. This alarm message indicates that the excessive bit error rate (EBER) threshold has been crossed.

Before you begin Before beginning this task:

- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions Chapter 1, “Safety”.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear an excessive bit error rate B2 condition.

-
- 1 The source of the alarm condition is not the LambdaRouter™ AOS.

END OF STEPS



Task 103: Clearing Inconsistent Neighbor Data (INCON-NBR-OUT, INCON-NBR-IN)

Purpose Use this procedure to clear an inconsistent neighbor data condition. This alarm message indicates that either the local LambdaRouter™ AOS database is incorrect or the connection is incorrect.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ AOS and an electrostatic discharge (ESD) strap.
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local LambdaRouter™ AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).

Log in to the LambdaRouter™ AOS with a Privilege Code of M1 and P3 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:



CAUTION

Replacing circuit packs may be service-affecting if they are carrying traffic. If possible, reconfigure port traffic to spare ports. Circuit pack replacement must be scheduled and affected customers should be notified of service interruption.

**CAUTION**

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task

Complete the following steps to clear an inconsistent neighbor data condition.

-
- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

-
- 2 From the Shelf View, select **View>View Equipment Details**.

Result: The View Equipment Details Screen appears.

-
- 3 Enter the AID identified in Step 1, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment. Click **Select**.

Result: The View Och Port Details Screen appears.

-
- 4 Click on the **Output** tab; then click on the **Port Link** tab.

Result: The screen is populated with information for the selected AID.

-
- 5 Make note of the IPADDR and NAID.

6 Inspect the physical connections on the local LambdaRouter™ AOS.

IF...	THEN...
the physical connections are correct	continue to the next step.
the physical connections are incorrect	correct the problem and continue to the next step.

7 Contact the System Administrator of the Far End (FE) LambdaRouter™ AOS and request an inspection of the physical connections at the FE LambdaRouter™ AOS.

IF...	THEN...
the physical connection is correct	continue to the next step.
the physical connection is incorrect	correct the connection and continue to the next step.

8 Compare the connectivity information with the IPADDR and NAID obtained in Step 4.

IF...	THEN...
the connectivity information for the FE LambdaRouter™ AOS does not match the information for the local LambdaRouter™ AOS	continue to the next step.
the connectivity information for the FE LambdaRouter™ AOS matches the information for the local LambdaRouter™ AOS	contact Lucent Technical Support. <i>Stop! End of task.</i>

9 At the OCI System View, select **Configuration>Provision** from Main Menu bar.

Result: The Provision Parameters for Equipment Screen appears.

- 10 Enter the AID determined in Step 1 in the Enter AID field or select the port from the equipment list; then click **Provision**.

Result: The parameters for the selected port appear on the right side of the Provision Parameters for Equipment Screen.

11

IF provisioning an...	THEN...
input port	click the Input tab.
output port	click the Output tab.

- 12 Click on the **Port Link Parameters** tab and modify the IPADDR and/or the NAID.

- 13 Click **Apply**.

- 14 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same inconsistent neighbor data alarm	the alarm condition has cleared.
the Alarm List displays the same inconsistent neighbor data alarm	contact Lucent Technical Support.

END OF STEPS

Task 104: Clearing Initialization Error (PROGFLT)

Purpose Use this procedure to clear a PMOD initialization error condition. This alarm message indicates that the IP port did not initialize.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter TM AOS, a replacement PMOD board, a replacement RIP circuit pack and an electrostatic discharge (ESD) strap.
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local LambdaRouter TM AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter TM AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the LambdaRouter TM AOS with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter TM AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear an initialization error condition.

- 1** Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

-
- 2 Reset the Personality Module (PMOD) with the alarmed port.

Reference: “Task 521: Resetting a System, Shelf, or Circuit Pack” (11-99)

- 3 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same initialization error alarm	the alarm condition has cleared. <i>Stop! End of task.</i>
the Alarm List displays the same initialization error alarm	continue to the next step.

- 4 Reset the RIP circuit pack

Reference: “Task 521: Resetting a System, Shelf, or Circuit Pack” (11-99)

- 5 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same initialization error alarm	the alarm condition has cleared. <i>Stop! End of task.</i>
the Alarm List displays the same initialization error alarm	continue to the next step.

- 6 Remove the RIP circuit pack.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

-
- 7 Replace the PMOD.

Reference: “SE 104-1:Replacing a PMOD board” (7-12)

- 8 Insert the RIP circuit pack.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

- 9 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same initialization error alarm	the alarm condition has cleared.
the Alarm List displays the same initialization error alarm	contact Lucent Technical Support.

END OF STEPS



**SE 104-1: Replacing a
PMOD board**

Complete the following steps to replace a PMOD board on a RIP circuit pack.

-
- 1 Use one hand to pull the metal knob at the top rear of the RIP circuit pack in a perpendicular direction away from the PMOD board until the pin is clear of the PMOD board. At the same time, use the other hand to slide the PMOD board out of the PCI slot.

Important! Each PMOD board is secured to the RIP circuit pack by a Peripheral Component Interconnect (PCI) connector slot at the rear of the RIP circuit pack and by a spring-held metal knob with a pin at the top rear of the RIP circuit pack.

-
- 2 When the PMOD board is free of the PCI connector slot and the spring-held metal knob pin, pull the PMOD board through the RIP faceplate opening in a direction parallel to the RIP circuit pack.

Result: The PMOD board is completely removed from the RIP circuit pack.

-
- 3 Insert the rear of the replacement PMOD into the RIP faceplate opening and push forward into the slot until the PMOD faceplate is near the RIP faceplate opening.

Important! The inside of the PMOD faceplate has two guide pins, one on the top and one on the bottom

-
- 4 While carefully guiding the top and bottom PMOD guide pins toward the corresponding holes at the RIP circuit pack faceplate opening, also guide the back of the PMOD board toward the PCI connector slot at the rear of the RIP circuit pack.

-
- 5 With the front guiding pins properly aligned, use one hand to pull the spring-held metal knob at the rear of the RIP circuit pack in a perpendicular direction away from the PMOD board until the pin is clear of the PMOD board. At the same time, use the other hand to push the PMOD board carefully into the PCI slot at the rear of the RIP circuit

pack until the spring-held metal knob pin can be gently released to engage its pin into the corresponding hole on the PMOD board.

Result: The PMOD board is installed on the RIP circuit pack.

END OF STEPS

Task 105: Clearing Link Integrity Failure (PLKTERM)

Purpose Use this procedure to clear a link integrity failure condition. This alarm message indicates that a total loss of communications at the incoming IP port has occurred.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear a link integrity failure condition.

-
- 1** Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

2 Determine the host circuit pack for the alarmed external IP port.

IF...	THEN...
the AID of the alarm is rc10-1- {0,1} or rc100-1- {0,1} -1	the IP port is on an RC circuit pack. The specific RC circuit pack can be determined by the AID. In the following examples, the slot numbers are shown in bold : rc10-1- {0,1} or rc100-1- {0,1} -1.
the AID of the alarm is rip10-1- {1,2}-1, or rip100-1- {1,2} -1	the IP port is on an RIP circuit pack. The specific RIP circuit pack can be determined by the AID. In the following examples, the slot numbers are shown in bold : rip10-1- {1,2} -1, or rip100-1- {1,2} -1.

3 At the faceplate of the RIP or RC circuit pack associated with the alarmed IP port, verify that the RJ-45 connector corresponding to the alarmed port is secure in the jack. In the case of an alarmed RIP IP Ethernet port, check all four RJ-45 connectors.

4 Trace and check all related connections on IP Gateways or Routers connected to the LambdaRouter TM AOS.

5 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same link integrity failure alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of task.</i>
the same link integrity failure alarm is still on the Alarm List	the condition has not cleared. Contact the local IP Network Administrator. <i>Stop! End of task.</i>

END OF STEPS



Task 106: Clearing Loss of Frame (CCN-LOF)

Purpose Use this procedure to clear a loss of frame condition. This alarm message indicates that consecutive framing errors in the incoming signal were detected.

Before you begin Before beginning this task:

- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear a loss of frame condition.

-
- 1** The source of the alarm condition is not the LambdaRouter TM AOS.

END OF STEPS



Task 107: Clearing Mapper LOS (CCN-MLOS)

Purpose Use this procedure to clear a mapper LOS condition. This alarm message indicates that an all-zeros pattern was detected. An all-zeros pattern corresponds to no light pulses for OC-N/STM-N optical interfaces.

Before you begin Before beginning this task:

- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear a mapper LOS condition.

-
- 1 The source of the alarm condition is not the LambdaRouter TM AOS.

END OF STEPS



Task 108: Clearing No OSPF Port (MAN-OSPF)

Purpose Use this procedure to clear a no OSPF port condition. This alarm indicates that none of the following IP ports on the alarmed circuit pack were provisioned to be both active and OSPF (Open Shortest Path First) enabled:

- External 100 Base-T Ethernet hub port
- External 10 Base-T Ethernet hub port
- Any of the 2.5 G SONET/SDH ports on any of the Personality Modules (PMODs)

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 and S3 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear the no OSPF port condition.

-
- 1 Determine the AID of the alarmed circuit pack. At the OCI System

View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: This lists all of the LambdaRouter™ AOS current alarms. The Access Identifier (AID) provides the shelf and slot location of the failure.

- 2 From the System View Main Menu bar, select **Administration>Data Communications**.

Result: The Data Communications Equipment Selection Screen appears.

- 3 In the Equipment Selection Screen, enter an AID for the desired port on the alarmed circuit pack, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired port.
-

- 4 Click **Select**.

Result: The IP Address Provisioning Screen for the selected port appears.

- 5 Enter ACTIVE in the Port Status Indicator field and ENABLE in the OSPF Domain Member Indicator field.
-

- 6 Click **Apply**.

Result: A successful completion message appears.

- 7 Click **OK**.

Result: The successful completion message closes.

- 8 Perform a reset of the RIP circuit pack.

Reference: “Task 521: Resetting a System, Shelf, or Circuit Pack” (11-99)

- 9 After the reset has completed, log back into the LambdaRouter™ AOS.

Reference: “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

- 10 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the no OSPF port alarm is not on the Alarm List	the condition has cleared.
the no OSPF port alarm is still on the Alarm List	continue to the next step.

- 11 Verify that the IP port has been properly provisioned. From the System View Main Menu bar, select **Administration>Data Communications**.

Result: The Data Communications Equipment Selection Screen appears.

- 12 In the Equipment Selection Screen, enter an AID for the desired port on the alarmed circuit pack, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired port.

- 13 Click **Select**.

Result: The IP Address Provisioning Screen for the selected port appears.

- 14 Ensure that the Port Status Indicator is **ACTIVE** and the OSPF Domain Member Indicator is **ENABLE**.

- 15 Perform reset of RIP circuit pack.

Reference: “Task 521: Resetting a System, Shelf, or Circuit Pack” (11-99)

-
- 16** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the no OSPF port alarm is not on the Alarm List	the condition has cleared.
the no OSPF port alarm is still on the Alarm List	contact Lucent Technical Support.

END OF STEPS



Task 109: Clearing Optical LOS (CCN-LOS)

Purpose Use this procedure to clear an optical LOS condition. This alarm message indicates that insufficient signal power was detected by the power monitor on the input port.

Before you begin Before beginning this task:

- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear an optical LOS condition.

-
- 1 The source of the alarm condition is not the LambdaRouter™ AOS.

END OF STEPS





8 Common Alarm Messages and Trouble-Clearing Tasks

Overview

Purpose This chapter includes trouble-clearing tasks for common alarm messages.

Contents This chapter contains the following sections:

Task 200: Clearing Communications Lost with Sub-Shelf (CONTBUS)	8 - 2
Task 201: Clearing Power Failure (PWR)	8 - 16
Task 202: Clearing Non-Volatile Memory Usage (NVMU)	8 - 20
Task 203: Clearing Switch Shelf SNIP ID Mismatch (DATAFLT)	8 - 22



Task 200: Clearing Communications Lost with Sub-Shelf (CONTBUS)

Purpose Use this procedure to restore communications with a sub-shelf.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the LambdaRouter™ AOS with a Privilege Code of P3 or higher from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution before beginning this task



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system, use a static ground wrist strap to prevent electrostatic discharge.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear a communications lost with sub-shelf condition.

- 1 Determine the AID of the alarm by viewing the current Alarm List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf location of the failure.

- 2 Verify whether the shelf is present within the appropriate bay.

IF...	THEN...
the alarmed shelf is present in the bay	continue to step 8.
the alarmed shelf is not present in the bay	continue to the next step.

- 3

IF...	THEN...
the alarmed shelf is a High-Voltage Shelf (HVS)	continue to step 6.
the alarmed shelf is an Optical Interface Shelf (OIS) and it is intended to be in-service	continue to step 6.
the alarmed shelf is an Optical Interface Shelf (OIS) and the shelf is no longer intended to be in-service and can be deleted	continue to the next step.

- 4 The OIS is to be deleted. Prior to deleting the shelf, delete all cross-connects on the shelf.

Reference: “Task 504: Deleting a Cross-Connection” (11-29)

-
- 5 When all cross-connections on the shelf are deleted, remove the circuit packs on the shelf.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

- 6 Delete all circuit packs on the shelf

Reference: “Task 503: Deleting a Circuit Pack, Shelf, or Maintenance Group” (11-22)

- 7 When all circuit packs are deleted, delete the shelf.

Reference: “Task 503: Deleting a Circuit Pack, Shelf, or Maintenance Group” (11-22)

- 8 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same lost communications with sub-shelf alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of Task.</i>
the same lost communications with sub-shelf alarm is still on the Alarm List	contact Lucent Technical Support. <i>Stop! End of Task.</i>

- 9 The shelf is missing. Contact Lucent Technical Support for installation of the appropriate shelf.

- 10 When the shelf has been installed, check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same lost communications with sub-shelf alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of Task.</i>
the same lost communications with sub-shelf alarm is still on the Alarm List	continue to the next step.

- 11 Determine whether the shelf has power.

IF...	THEN...
both the shelf A and B circuit breakers are off or both PFVP unit LEDs are off	restore power to the shelf. Then continue to the next step. Reference: “Task 605: Recovering from Shelf Power Failure” (12-19)
at least one shelf A or B circuit breaker is on and at least one PFVP unit LED is on	continue to the next step.

- 12 Verify whether the appropriate controllers packs are equipped in the alarmed shelf: Optical Interface Shelf Switch Interface Controller (OSWIC) for an OIS and High-Voltage Shelf Switch Interface Controller (HSWIC) for an HVS.

IF...	THEN...
the alarmed shelf has two OSWICs equipped for an OIS or two HSWICs equipped for an HVS	continue to Step 13.
the alarmed shelf has one OSWIC equipped for an OIS or one HSWIC equipped for an HVS	continue to Step 15.

IF...	THEN...
the alarmed shelf has no OSWICs equipped for an OIS or no HSWIC equipped for an HVS	continue to the next step.

- 13 Insert two healthy spare OSWIC circuit packs for an OIS or HSWIC circuit packs for an HVS into the alarmed shelf. Continue to Step 18.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

- 14 Remove both circuit packs from their slots

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

- 15 Inspect the circuit packs for visible damage.

IF...	THEN...
neither circuit pack has visible damage	insert the same circuit packs back into the appropriate slots. Then continue to Step 18. Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)
one circuit pack has visible damage	do not insert the damaged circuit pack back into its slot. Replace the damaged circuit pack with a healthy spare and insert the original undamaged circuit pack back into its slot. Then continue to Step 18. Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)
both circuit packs have visible damage	do not insert the circuit packs back into their slots. Replace the circuit packs with two healthy circuit packs. Then continue to Step 18. Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

16 Remove the circuit pack from the slot.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

17 Inspect the circuit pack for visible damage.

IF...	THEN...
the circuit pack has no visible damage	insert the same circuit pack back into the slot. Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)
the circuit pack has visible damage	do not insert the same circuit pack back into the slot. Replace it with a healthy spare. Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

18 Insert a healthy spare OSWIC circuit pack for an OIS or HSWIC circuit pack for an HVS into the appropriate unequipped slot on the alarmed shelf.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

19 Wait for the shelf to finish the boot process.

20 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same communications lost with sub-shelf alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of task.</i>

IF...	THEN...
the same communications lost with sub-shelf alarm is still on the Alarm List	continue to the next step.

-
- 21** Verify whether the appropriate Unit Interface (UI) cables are connected between the OIS or HVS backplane and the System Controller Shelf (SCS) backplane.

IF...	THEN...
the alarmed shelf has two UI cables connected from its backplane to the SCS backplane	continue to Step 22.
the alarmed shelf has one UI cable connected from its backplane to the SCS backplane	continue to Step 23.
the alarmed shelf has no UI cables connected from its backplane to the SCS backplane	continue to the next step.

-
- 22** Attach two new healthy spare UI cables for the alarmed shelf backplane to the SCS backplane then continue to Step 24.

Reference: “SE 200-2: Attaching unit interface cable” (8-14)

-
- 23** Thoroughly inspect both of the UI cables for visible damage. Replace any damaged UI cable with a healthy spare. Then continue to step 24.

Reference: “SE 200-2: Attaching unit interface cable” (8-14)

24 Inspect the entire attached UI cable for visible damage.

IF...	THEN...
the UI cable has no visible damage	attach a new healthy spare UI cable where one is currently missing. Reference: "SE 200-2: Attaching unit interface cable" (8-14)
the UI cable has visible damage	replace it with a healthy spare and attach a new healthy spare UI cable where one is currently missing. Reference: "SE 200-2: Attaching unit interface cable" (8-14)

25 Reset both OSWIC or HSWIC circuit packs by pressing the reset button on the circuit pack faceplates.

26 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same communications lost with sub-shelf alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of Task.</i>
the same communications lost with sub-shelf alarm is still on the Alarm List	continue to the next step.

27 Replace both UI cables connecting the alarmed shelf to the SCS with healthy spares.

Reference: "SE 200-2: Attaching unit interface cable" (8-14)

28 Reset both OSWIC or HSWIC circuit packs by pressing the reset button on the circuit pack faceplates.

- 29 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same communications lost with sub-shelf alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of Task.</i>
the same communications lost with sub-shelf alarm is still on the Alarm List	continue to the next step

- 30 Replace both OSWICs for an OIS or HSWICs for an HVS with healthy spares.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

- 31 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same lost communications with sub-shelf alarm is not on the Alarm List	the condition has cleared.
the same lost communications with sub-shelf alarm is still on the Alarm List	contact Lucent Technical Support.

END OF STEPS



SE 200-1: Deleting a cross-connection

Complete the following steps to delete a cross-connection.

-
- 1** At the Optical Craft Interface, from the System View Main Menu bar, select **Configuration>Cross-Connection**.

Result: The Cross-Connection Wizard is invoked and the Cross-Connection Action Selection Screen appears.

- 2** Select **Delete leg(s) of an existing cross-connection** and click **Next**.

Result: The Existing Cross-Connection Selection Screen appears.

- 3** Enter an AID for the port that has an existing cross-connection, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired port.

Result: All cross-connections associated with the selected port are shown on the right side of the Existing Cross-Connection Selection Screen.

- 4** From the table on the right side of the screen, select the cross-connection to be deleted and click **Next**.

IF the cross-connection type is...	THEN...
one-way merge, one-way bridge, or is part of a configuration	the Cross-Connection Leg Selection Screen appears. Continue to the next step.
one-way or two-way point-to-point	the Delete Cross-Connection Summary Screen appears. Continue to Step 6.

5

IF...	THEN...
one leg of the selected cross-connection configuration is being deleted	select the appropriate leg of the cross-connection and click Next .
both legs of a selected bridge or merge cross-connection are being deleted	select either both legs merged on the output port AID or both legs bridged on the input port AID and click Next .
all legs of a selected configuration are being deleted	select All Legs and click Next .

Result: The Delete Cross-Connection Summary Screen appears.

6 Verify the selected cross-connection parameters.

IF...	THEN...
all cross-connection parameters are correct	click Finish . Result: A Confirmation Screen appears. Continue to the next step.
the cross-connection information is incorrect	click Back . Result: The Existing Cross-Connection Selection Screen appears. Return to Step 3 to reselect the port, or Step 4 to select a different cross-connection as necessary.
starting the procedure over again	click Start Over . Result: A Confirmation Screen appears. Click Yes and return to Step 2.

7 Click **Yes**.

Result: A Service Affecting Warning appears.

8 Click **Yes**.

Result: The Cross-Connection Action Selection Screen appears.

9

IF...	THEN...
additional cross-connection leg(s) are being deleted	return to Step 2 of this task.
additional cross-connection leg(s) are not being deleted	click Close to exit the Cross-Connection Wizard.

E N D O F S T E P S



SE 200-2: Attaching unit interface cable

Complete the following steps to attach a Unit Interface (UI) cable to an OIS or HVS.

.....

- 1 Determine the type of the alarmed shelf.

IF...	THEN...
the alarmed shelf is an HVS	attach with thumbscrews the UI cable connector to the HVS backplane connector J58 for the first cable and HVS backplane connector J60 for the second cable.
the alarmed shelf is an OIS	attach with thumbscrews the UI cable connector to the OIS backplane connector J3 for the first cable and OIS backplane connector J4 for the second cable.

.....

- 2 Attach the other end of each UI cable to the SCS backplane connector associated with the shelf number and OIS/HVS connector in the following table:

Shelf Type and Number	OIS/HVS Connector	SCS Connector
HVS-0	J58	P1
	J60	P69
HVS-1	J58	P2
	J60	P70
OIS-1	J3	P3
	J4	P71
OIS-2	J3	P4
	J4	P72
OIS-3	J3	P5
	J4	P73
OIS-4	J3	P6
	J4	P74

Shelf Type and Number	OIS/HVS Connector	SCS Connector
OIS-5	J3	P7
	J4	P75
OIS-6	J3	P8
	J4	P76
OIS-7	J3	P9
	J4	P77

Task 201: Clearing Power Failure (PWR)

Purpose Use this procedure to restore failed power or a tripped circuit breaker in response to a power failure alarm. This alarm can be caused by the following conditions:

- Circuit pack with bent pins
- Tripped circuit breaker
- Faulty power filter connections
- Failed power filter voltage protection (PFVP) unit.

This alarm message can have a critical (CR) or minor (MN) alarm level. If the level is critical, then the loss of both A and B power feeds has been detected. If the level is minor, then the loss of one power feed has been detected.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the LambdaRouter™ AOS with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution before beginning this task

**CAUTION**

Whenever handling circuit packs or working on a LambdaRouter™ AOS system, use a static ground wrist strap to prevent electrostatic discharge.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 5, “Supporting Tasks Background”
- “Task 509: Extracting and Inserting an NVM Card” (11-46)
- “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

Task

Complete the following steps to clear a failed power/fuse condition.

- 1 Determine the alarm level by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar. Look for a power/fuse alarm.

IF...	THEN...
the power alarm level is critical (CR), the shelf (OIS or HVS) reporting the alarm has no illuminated LED, and System Controller Shelf (SCS) User Panel has an illuminated red critical (CR) LED	that shelf has a complete power loss. Go to “Task 605: Recovering from Shelf Power Failure” (12-19). Continue to the next step.
the power alarm level is minor (MN) and the System Controller Shelf (SCS) User Panel has an illuminated yellow minor (MN) LED	loss of either the A or B power feed has been detected. Continue to the next step.

- 2 Make sure that the power cable is properly connected. Check for any visible damage on the cable.

-
- 3** Determine if circuit breakers have tripped. Inspect the A and B circuit breakers.

IF...	THEN...
A and B circuit breakers are not tripped and both PFVP units LEDs are illuminated	contact Lucent Technical Support. <i>Stop! End of Task.</i>
A or B circuit breaker is tripped	turn off the power to the PFVP unit and reset the circuit breaker by inserting a small flat-head screwdriver into the slot on the Off side circuit breaker On/Off switch until the power turns off. Then turn the power back on by pressing the On side of the On/Off switch. Continue to the next step.
both A and B circuit breakers are tripped	this may mean that a circuit pack with bent pins was just inserted. Continue to Step 5 only once, then contact Lucent Technical Support.
neither A nor B power feed circuit breakers are tripped and neither PFVP unit has its green LED illuminated	contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 4** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the power alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of Task.</i>
A or B power feed circuit breaker is still tripped	contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 5 Identify the circuit pack that was just installed, extract it and examine the connector pins on the circuit pack. Check for any physical defects.

IF...	THEN...
there is any damage	replace the circuit pack. Go to “ <i>Task 517: Removing, Inserting, or Replacing a Circuit Pack</i> ” (11-75), then return to Step 3.
there is no damage	contact Lucent Technical Support.

END OF STEPS



Task 202: Clearing Non-Volatile Memory Usage (NVMU)

Purpose Use this procedure to clear a controller non-volatile memory usage condition. A non-volatile memory usage condition can occur when available space is low and access times exceed a maximum threshold.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 5, “Supporting Tasks Background”

Task Complete the following steps to clear the controller non-volatile memory usage condition.

-
- 1 At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: This lists all of the LambdaRouter™ AOS current alarms. The Access Identifier (AID) provides the shelf and slot location of the failure.

-
- 2 Perform a system reset.

Reference: “Task 521: Resetting a System, Shelf, or Circuit Pack” (11-99)

-
- 3 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the resource usage alarm is not on the Alarm List	the condition has cleared.
the resource usage alarm is still on the Alarm List	contact Lucent Technical Support.

END OF STEPS



Task 203: Clearing Switch Shelf SNIP ID Mismatch (DATAFLT)

Purpose Use this procedure to clear a Switch Shelf (SWS) Serial Number Identification Port (SNIP) Identification (ID) mismatch. A SNIP ID mismatch can occur when system initialization, system reset, or Switch Shelf replacement causes the Non-Volatile Memory (NVM)-based fabric-initialization-database serial number to disagree with the Switch Shelf reported SNIP.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™, an electrostatic discharge (ESD) strap, and a 25-pin d-sub SNIP replacement cable.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local LambdaRouter™; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the LambdaRouter™ from the OCI with a Privilege Code of M1, P1, and S4; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution before beginning this task.



CAUTION

Use a static ground wrist strap whenever handling circuit packs or working on a LambdaRouter™ AOS system to prevent electrostatic discharge damage to sensitive components.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear the SWS SNIP ID mismatch condition.

-
- 1 At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: This lists all of the LambdaRouter™ AOS current alarms. The Alarm Issue Point provides the shelf, slot, and port location of the failure.

-
- 2 After confirming the alarm type as SNIP mismatch, inspect the SNIP cable, and secure terminal connections at the Switch Shelf and corresponding HSWIC controller. Disconnect and inspect the cable and the terminal connectors at both ends. Replace the cable if damaged. The 25 pin d-sub SNIP cable replacement is accomplished through thumbscrews on the connector shells at end of the cable. Reconnect the cable.

-
- 3 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the SNIP mismatch alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of Task.</i>
the SNIP mismatch alarm is still on the Alarm List	continue to Step 4.

-
- 4 Verify that the Switch Shelf serial number (SNIP ID) and the Expected Serial Number are the same.

At the OCI System View, select **View> Equipment Details** from the Main Menu bar.

Result: The Equipment Selection Screen appears.

-
- 5 On the Equipment Selection Screen, select the Switch Shelf in question.

Result: The Switch Shelf Details Screen appears.

- 6 The SNIP ID is shown in the Serial Number field. Compare the values in the Serial Number field and the Expected Serial Number field

IF...	THEN...
the Serial Number is not identical to the Expected Serial Number	from the NVM card that was shipped with the currently installed fabric, re-load the Optical Mapping Database. Go to “SE 203-1: Copying Non-Volatile Memory” (8-25).
the retrieved shelf serial number is identical to the Expected Serial Number	contact Lucent Technical Support. <i>Stop! End of Task.</i>

- 7 Perform a system reset.

Reference: “Task 521: Resetting a System, Shelf, or Circuit Pack” (11-99)

- 8 Wait 30 seconds and then check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the SNIP mismatch alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of Task.</i>
the SNIP mismatch alarm is still on the Alarm List	contact Lucent Technical Support. <i>Stop! End of Task.</i>

END OF STEPS

SE 203-1: Copying Non-Volatile Memory

Perform the following steps to copy the non-volatile memory.

-
- 1** Remove the system from service.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

- 2** At the OCI System View, select **Configuration>Software>Copy NVM** from the Main Menu bar.

Result: The Copy NVM Screen appears.

- 3** Select **Data** as the data type to be copied.

Important! The SWIP calibration files are included in the database and are part of **Data**.

- 4** Select **Secondary to Active Primary** for the type of copy.

IF copying the data...	THEN...
should include a database restore	select the Restoration Option labeled Include Restore.
should not include a database restore	ensure the Restoration Option labeled Include Restore is not selected.

- 5** Click **OK**.

Result: A Confirmation Screen appears.

6 Click **Yes**.

IF the Data Type being copied is...	THEN...
Data and the Include Restore option was selected	the database is copied into the previous folder of the primary NVM and the system performs a reset. During the reset the database is copied into the current folder of primary NVM and becomes active. During the reset the system automatically disconnects the Optical Craft Interface. When the system reset has completed, the system is in service. <i>Stop! End of Task.</i>
Data and the Include Restore option was not selected	the selected data is copied from the secondary NVM to the previous primary NVM. Continue to the next step.

7 Return the system to an in-service (IS) state.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

END OF STEPS





9 Equipment Alarm Messages and Trouble-Clearing Tasks

Overview

Purpose This chapter includes trouble-clearing tasks for equipment alarm messages.

This chapter contains the following sections:

Task 300: Clearing Circuit Pack Failure (CONTR/CPF/CTNEQPT/FACTERM)	9 - 4
Task 301: Clearing Invalid Circuit Pack (PRCDRERR)	9 - 7
Task 302: Clearing Failed Fan (INT)	9 - 10
Task 303: Clearing HVDAC High-Voltage Cable Disconnect (CONTCOM)	9 - 15
Task 304: Clearing Improper Removal of Circuit Pack (CP_UNEQ/IMPROPRMVL)	9 - 18
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Task 309: Clearing Outgoing AIS-L (INT-AIS-L)	9 - 38
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Task 322: Clearing Time of Day Clock Battery Failure (RTCLK)	9 - 148



Task 300: Clearing Circuit Pack Failure (CONTR/CPF/CTNEQPT/FACTERM)

Purpose Use this procedure to clear a circuit pack internal failure condition. This alarm message indicates that a circuit pack has failed. A circuit pack stops functioning when one or more components on the circuit pack fails, which is indicated by the illuminated red LED on the circuit packs.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:



CAUTION

Replacing circuit packs may be service-affecting if they are carrying traffic. If possible, reconfigure port traffic to spare ports. Circuit pack replacement must be scheduled and affected customers should be notified of service interruption.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

Task

Complete the following steps to clear a circuit pack internal failure condition.

-
- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf and slot location of the failure.

-
- 2 Replace the failed circuit pack. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).

-
- 3 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same circuit pack failure alarm message	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List still displays the same circuit pack failure alarm message	return to Step 2 only once. If the alarm does not clear after repeating Step 2, contact Lucent Technical Support. <i>Stop! End of Task.</i>

END OF STEPS



Task 301: Clearing Invalid Circuit Pack (PRCDRERR)

Purpose Use this procedure to clear a circuit pack unexpected, illegal, or unknown condition. This alarm message indicates that the circuit pack type provisioned for this slot either does not match the circuit pack type that was inserted or the circuit pack type information on the circuit pack cannot be read. For additional information, refer to Chapter 4, “Alarm Messages and Trouble-Clearing Tasks Background”.

- Before you begin** Before beginning this task:
- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
 - Use the electrostatic discharge (ESD) strap.
 - Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
 - Read and follow all safety instructions in Chapter 1, “Safety”.
 - Connect the OCI to the LambdaRouter™ AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
 - Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
 - Log in to the LambdaRouter™ AOS with a Privilege Code of P1 and M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precautions:



CAUTION

Replacing the Port Units or HVDAC circuit packs may be service-affecting if they are carrying traffic. If possible, reconfigure port traffic to spare ports. Circuit pack replacement must be scheduled and affected customers should be notified of service interruption.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task

Complete the following steps to clear a circuit pack unexpected, illegal, or unknown condition.

-
- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: This lists all LambdaRouter™ AOS current alarms. The AID provides the shelf and slot location of the failure.

-
- 2 From the Shelf View, select **View>Equipment Details**

Result: The View Equipment Details Screen appears.

-
- 3 Enter the AID determined in Step 1 in the Enter AID field or select the slot from the equipment list. Click **Select**.

Result: The View Circuit Pack/Slot Details Screen appears.

-
- 4 Replace the installed circuit pack type with appropriate circuit pack type. The type is shown in the Slot Type field on the View Circuit Pack/Slot Details Screen. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).

- 5 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same circuit pack unexpected, illegal, or unknown alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same circuit pack unexpected, illegal, or unknown alarm	replace the circuit pack. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

- 6 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same circuit pack unexpected, illegal, or unknown alarm	the alarm condition has cleared.
the Alarm List displays the same circuit pack unexpected, illegal, or unknown alarm	contact Lucent Technical Support.

END OF STEPS



Task 302: Clearing Failed Fan (INT)

Purpose Use this procedure to clear a failed fan condition. This alarm message indicates that one or more components on the Fan Unit has failed, causing the Fan Unit to malfunction. This condition may also occur if the Power Filter Voltage Protection (PFVP) Unit for the specified shelf has failed.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™, an electrostatic discharge (ESD) strap, and the appropriate replacement Fan Unit. Use a Standard Fan Unit for a High-Voltage Shelf (HVS) or a System Controller Shelf (SCS), and a Large Fan Unit for an Optical Interface Shelf (OIS).
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:

**CAUTION**

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 605: Recovering from Shelf Power Failure” (12-19)
- “Task 519: Replacing a Fan Filter” (11-95)

Task

Complete the following steps to clear a failed fan condition.

-
- 1** Determine the Access Identifier (AID) and level of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: This lists all LambdaRouter™ AOS current alarms. The AID provides the shelf location of the failure.

2

IF...	THEN...
the alarm level is Minor (MN) or Major (MJ) and the Fan Filter LED on the Fan Unit faceplate is not illuminated	continue to the next step.
the alarm level is Minor (MN) and the Fan Filter LED on the Fan Unit faceplate is illuminated	go to Step 11. <i>Stop! End of Task.</i>

-
- 3 Verify that the PFVP units are operating normally. Both green LEDs should be on.

IF...	THEN...
one of the PFVP unit LEDs is off	continue to the next step.
both LEDs are off	there is a power failure on the shelf. Go to “Task 605: Recovering from Shelf Power Failure” (12-19). <i>Stop! End of Task.</i>
both LEDs are on	continue to Step 6.

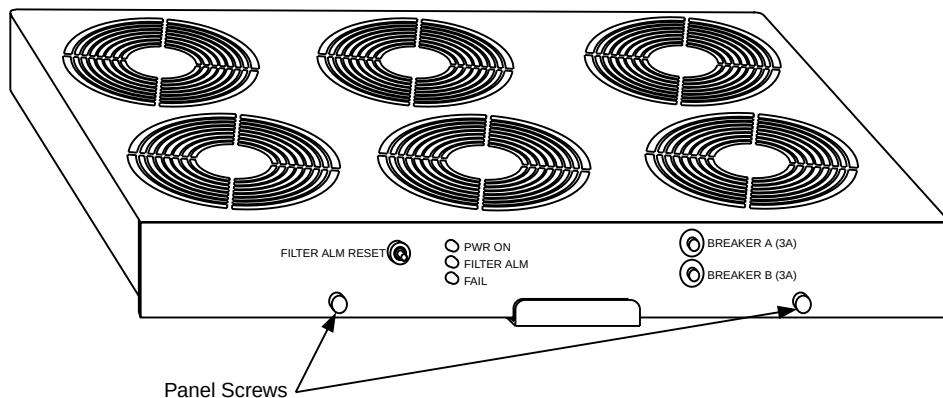
- 4 To reset the PFVP unit, press the reset button using a ball-point pen.

IF...	THEN...
the PFVP unit returns to normal operation (indicated by the illuminated green LED)	continue to the next step.
the PFVP does not return to normal operation and the unit has not been replaced	contact Lucent Technical Support. <i>Stop! End of Task.</i>

- 5 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same failed fan alarm message is not on the Alarm List	the alarm condition has cleared. <i>Stop! End of Task.</i>
the same failed fan alarm message is still on the Alarm List	the Fan Unit has failed. Continue to the next step.

- 6 Loosen the two panel screws on either side of the Fan Unit. The figure below shows the location of the panel screws on a Standard Fan Unit. The location of the panel screws are the same on the Large Fan Unit.



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- 7 Remove the Fan Unit. Grasp the center-mounted handle. Pull out the Fan Unit by applying even right and left force.
- 8 Install the new Fan Unit. Grasp the center-mounted handle. Carefully push the new Fan Unit into the shelf.
- 9 Tighten the two panel screws on either side of the new Fan Unit to secure it into the shelf.
- 10 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same failed fan alarm message is not on the Alarm List	the alarm condition has cleared. <i>Stop! End of Task.</i>
the same failed fan alarm message is still on the Alarm List	contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 11** An alarm level of Minor (MN) combined with the illuminated Fan Filter LED on the Fan Unit faceplate indicates that the fan filter needs to be replaced.

Reference: “Task 519: Replacing a Fan Filter” (11-95)

- 12** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same failed fan alarm message is not on the Alarm List and the Fan Filter LED is not illuminated	the alarm condition has cleared.
the same failed fan alarm message is still on the Alarm List	contact Lucent Technical Support.

END OF STEPS



Task 303: Clearing HVDAC High-Voltage Cable Disconnect (CONTCOM)

Purpose Use this procedure to clear a High-Voltage-to-Digital Analog Converter (HVDAC) high-voltage cable disconnect condition. This alarm indicates that the HVDAC cable that provides the control signal for the Switch Interface Points (SWIPs) is disconnected or may be faulty.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™, an electrostatic discharge (ESD) strap, and a replacement HVDAC cable.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in the About this information product Chapter in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local LambdaRouter; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the LambdaRouter from the OCI with a Privilege Code of M1; use “Task 511: Logging in to LambdaRouter™ AOS by Cut-Through” (11-52).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear an HVDAC high-voltage cable disconnect condition.

-
- 1** Determine the Access Identifier (AID) and Alarm Issue Point of the alarm by viewing the current Alarms List. At the OCI System View,

select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The Alarm Issue Point provides the shelf and slot location of the failure.

-
- 2 Locate the HVDAC cable at the rear of the High-Voltage Shelf (HVS) that contains the alarmed HVDAC circuit pack. The cable will be labeled with the HVDAC AID from the Alarm List.
-

- 3 Inspect the HVDAC cable connections at the High-Voltage Shelf (HVS) and Switch Shelf (SWS).

IF...	THEN...
either end is loosely connected	tighten the connection and go to Step 4.
both ends are firmly connected	the HVDAC high-voltage cable may be faulty. Go to Step 5.

- 4 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same HVDAC high-voltage cable disconnect alarm message is no longer on the Alarm List	the alarm condition has cleared. <i>Stop! End of Task.</i>
the same HVDAC high-voltage cable disconnect alarm message is still on the Alarm List	the HVDAC high-voltage cable may be faulty.

- 5 Replace the HVDAC high-voltage cable.

-
- 6** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same HVDAC high-voltage cable disconnect alarm message is no longer on the Alarm List	the alarm condition has cleared. <i>Stop! End of Task.</i>
the same HVDAC high-voltage cable disconnect alarm message is still on the Alarm List	contact Lucent Technical Support. <i>Stop! End of Task.</i>

END OF STEPS



Task 304: Clearing Improper Removal of Circuit Pack (CP_UNEQ/IMPROPRMVL)

Purpose Use this procedure to clear an improper removal of circuit pack condition. This condition indicates that one of the optical cross-connect interface circuit packs was removed without first being provisioned out of service.

This condition also indicates that one of the following circuit packs was removed regardless of its status:

- SYS50D
- RC
- EI
- PRI
- SEC
- DCC
- HSWIC
- OSWIC
- HVDAC
- RIP
- PMOD

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the electrostatic discharge (ESD) strap.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).

- Log in to the network element with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precaution Read and understand the following safety precaution:



CAUTION

Replacing the Optical Cross-Connect Interface or HVDAC circuit packs may be service-affecting if they are carrying traffic. If possible, reconfigure port traffic to spare ports. Circuit pack replacement must be scheduled and affected customers should be notified of service interruption.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

Task Complete the following steps to clear an improper removal of circuit pack condition.

-
- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: This lists all of the LambdaRouter™ AOS current alarms. The AID provides the shelf and slot location of the failure.

- 2 Verify whether the alarmed circuit pack is in its appropriate slot.

IF...	THEN...
the circuit pack is not present in the slot	continue to Step 8.
the circuit pack is present in the slot	the circuit pack may be damaged.

- 3 If the circuit pack latch is closed, then open it. Remove the circuit pack from the slot.

- 4 Inspect the entire circuit pack for visible damage.

IF...	THEN...
the circuit pack has no visible damage	insert the same circuit pack back into the equipped slot. Go to “ <i>Task 517: Removing, Inserting, or Replacing a Circuit Pack</i> ” (11-75).
the circuit pack has visible damage	do not insert the circuit pack into the slot. Continue to Step 6.

- 5 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same improper removal of circuit pack alarm message	the alarm condition has cleared. <i>Stop! End of Task.</i>
the same improper removal of circuit pack alarm message is displayed	open the latch and remove the circuit pack from the slot.

-
- 6** Replace the circuit pack with a spare circuit pack of the same type with no visible damage.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

- 7** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same improper removal of circuit pack alarm message	the alarm condition has cleared. <i>Stop! End of Task.</i>
the same improper removal of circuit pack alarm message is displayed	a possible backplane problem exists. Contact Lucent Technical Support. <i>Stop! End of Task.</i>

8

IF...	THEN...
the slot is a SYS50D, RC, EI, PRI, SEC, DCC, HVDAC, OSWIC, HSWIC, RIP, or PMOD slot	the alarm cannot be cleared until a valid circuit pack is inserted into the slot and the latch is closed. Continue to the next step.
the slot is an OXI slot	the correct procedure was not followed for replacing the circuit pack. The slot/circuit pack should have been removed from service before the extraction of the circuit pack. Continue to Step 11.

- 9** Insert a spare circuit pack of the appropriate type with no visible damage into the unequipped slot.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

-
- 10** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same improper removal of circuit pack alarm message	the alarm condition has cleared. <i>Stop! End of Task.</i>
the same improper removal of circuit pack alarm message is displayed	open the latch and remove the circuit pack from the slot. Then return to Step 4 only once. If the alarm does not clear the second time, contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 11** Remove the system from service.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

-
- 12** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same improper removal of circuit pack alarm message	the alarm condition has cleared.
the same improper removal of circuit pack alarm message is displayed	repeat Step 11 only once. If the alarm does not clear the second time, contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 13** If desired, the circuit pack can now be replaced following the correct procedure. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).

END OF STEPS



Task 305: Clearing Improper Removal of Fan (IMPROPRMVL)

Purpose Use this procedure to clear an improper removal of fan condition.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™, an electrostatic discharge (ESD) strap, and the appropriate replacement Fan Unit. Use a Standard Fan Unit for a High-Voltage Shelf (HVS) or a System Controller Shelf (SCS), and a Large Fan Unit for an Optical Interface Shelf (OIS).
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the electrostatic discharge (ESD) strap.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precaution Read and understand the following safety precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

- Chapter 4, “Alarm Messages and Trouble-Clearing Tasks Background”

Task Complete the following steps to clear an improper removal of fan condition.

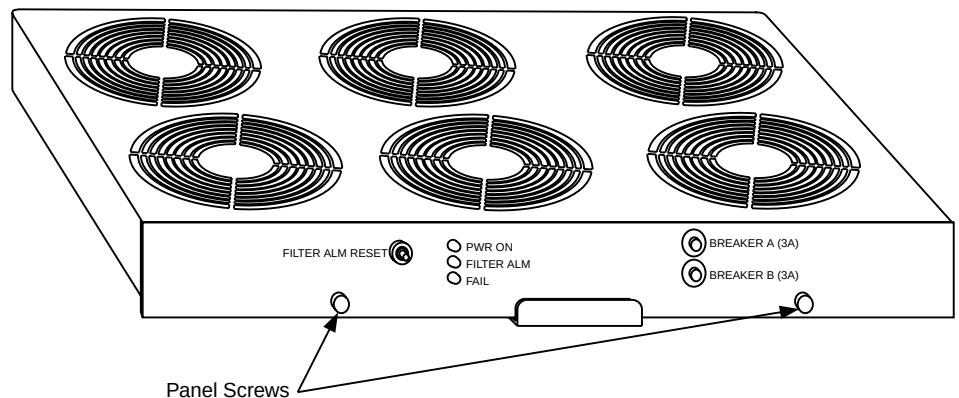
- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: This lists all of the LambdaRouter™ AOS current alarms. The AID provides the shelf location of the failure.

- 2 Verify whether the alarmed fan is in the appropriate slot.

IF...	THEN...
the fan is not present is the slot	continue to Step 11.
the fan is present is the slot	the Fan Unit may be damaged. Continue to the next step.

- 3 Loosen the two panel screws on either side of the Fan Unit. The figure below shows the location of the panel screws on a Standard Fan Unit. The location of the panel screws are the same on the Large Fan Unit.



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- 4 Remove the Fan Unit. Grasp the center-mounted handle. Pull out the Fan Unit by applying even right and left force.

5 Inspect the entire Fan Unit for visible damage.

IF...	THEN...
the Fan Unit has no visible damage	continue to next step.
the Fan Unit has visible damage	continue to Step 11.

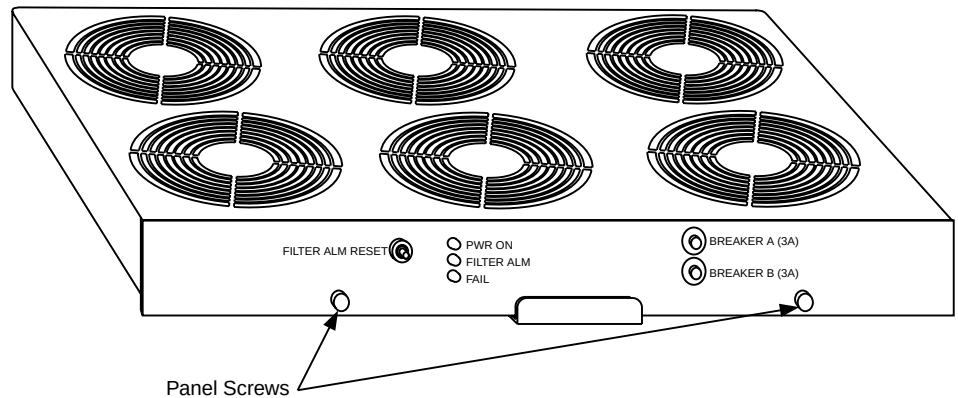
6 Install the same Fan Unit. Grasp the center-mounted handle. Carefully push the Fan Unit into the shelf.

7 Tighten the two panel screws on either side of the Fan Unit to secure it into the shelf.

8 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same improper removal of fan alarm message is not on the Alarm List	the alarm condition has cleared. <i>Stop! End of Task.</i>
the same improper removal of fan alarm message is still on the Alarm List	the alarm condition has not cleared. The Fan Unit needs to be replaced. Continue to the next step.

- 9 Loosen the two panel screws on either side of the Fan Unit. The figure below shows the location of the panel screws.



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- 10 Remove the Fan Unit. Grasp the center-mounted handle. Pull out the Fan Unit by applying even right and left force.
- 11 Install a healthy Fan Unit. Grasp the center-mounted handle. Carefully push the Fan Unit into the shelf.
- 12 Tighten the two panel screws on either side of the Fan Unit to secure it into the shelf.

-
- 13** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same improper removal of fan alarm message is not on the Alarm List	the alarm condition has cleared.
the same improper removal of fan alarm message is still on the Alarm List	repeat Step 9 through Step 12 only once. If the alarm still does not clear, contact Lucent Technical Support.

END OF STEPS



Task 306: Clearing Improper SWIP Association (SWMTXMOD)

Purpose Use this procedure to clear an improper Switch Interface Point (SWIP) association. This alarm message indicates that during port initialization a faulty SWIP was associated with a port. This condition implies two Mismatch of Equipment and Attributes (MEA) states: OOS-MA, UAS&MEA and OOS-MA, FLT&MEA. For more information regarding primary and secondary states refer to the TL1 command page for RTRV- EQPT in the *LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 Operations and System Engineering Guide*.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 and P1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3)

Task

Complete the following steps to clear the improper SWIP association condition.

-
- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf and SWIP location of the failure.

-
- 2 Select **View>Equipment Details** from the OCI System View Main Menu bar.

Result: The Equipment Selection Screen appears.

-
- 3 Select the SWIP identified by the alarm.

Result: The View OCH Port Details Screen appears.

-
- 4 Make note of the port associated with the alarmed SWIP.

-
- 5 Reassign the the port associated with the alarmed SWIP to a functioning spare SWIP. Go to “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3).

-
- 6 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same improper SWIP association alarm message	the alarm has cleared.
the same improper SWIP association alarm message is displayed	contact Lucent Technical Support.

END OF STEPS



Task 307: Clearing Microcontroller Failure (WATM-TO)

Purpose Use this procedure to clear a microcontroller failure condition. This alarm message indicates that system cannot communicate with the microcontroller.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 and P1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Use this procedure to clear the microcontroller failure condition.

-
- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf and slot location of the failure.

-
- 2 Reset the alarmed Optical Cross-connect Interface circuit pack.

Reference: “Task 521: Resetting a System, Shelf, or Circuit Pack” (11-99).

-
- 3 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same microcontroller failure alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of task.</i>
the same microcontroller failure alarm is still on the Alarm List	the condition has not cleared. Continue to the next step.

-
- 4 Replace the alarmed Optical Cross-connect Interface circuit pack.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

-
- 5 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same microcontroller failure alarm is not on the Alarm List	the condition has cleared.
the same microcontroller failure alarm is still on the Alarm List	the condition has not cleared. Contact Lucent Technical Support.

END OF STEPS



Task 308: Clearing Non-Volatile Memory Failure (NVMW)

Purpose Use this procedure to clear the non-volatile memory (NVM) wearout condition. This condition occurs when the number of failed NVM data clusters exceeds a predetermined insufficient capacity threshold. When this threshold is crossed, the Non-Volatile Memory Wearout alarm is generated. For additional information, refer to Chapter 4, “Alarm Messages and Trouble-Clearing Tasks Background”.

- Before you begin** Before beginning this task:
- Obtain an Optical Craft Interface (OCI) for LambdaRouter™, an electrostatic discharge (ESD) strap, and replacement NVM card.
 - Use the electrostatic discharge (ESD) strap.
 - Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
 - Read and follow all safety instructions in Chapter 1, “Safety”.
 - Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
 - Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
 - Log in to the network element with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).
 - Have on hand a spare, formatted NVM card supplied by Lucent Technologies. Refer to the *LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 Application and Planning Guide* for more information about the NVM card.

Safety precautions Read and understand the following safety precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 4, “Alarm Messages and Trouble-Clearing Tasks Background”
- “Task 509: Extracting and Inserting an NVM Card” (11-46)

Task

Complete the following steps to clear a non-volatile memory wearout condition.

-
- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf and slot location of the failure.

-
- 2 Replace the failed NVM card. Go to “Task 509: Extracting and Inserting an NVM Card” (11-46).

-
- 3** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the non-volatile memory wearout alarm is not on the Alarm List	the condition has cleared.
the non-volatile memory wearout alarm is still on the Alarm List	the condition has not cleared. Contact Lucent Technical Support.

END OF STEPS



Task 309: Clearing Outgoing AIS-L (INT-AIS-L)

Purpose Use this procedure to clear an alarm indication signal-line (INT-AIS-L) condition. This alarm message indicates that the outgoing signal has valid SONET/SDH Section/Regenerator Section overhead and otherwise is composed of all ones. There are also all ones in bits 6,7, and 8 of the K2 byte.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element from the OCI with a Privilege Code of M4 and P1; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear an outgoing loss of alarm indication signal-line (INT-AIS-L) condition.

-
- 1** Determine the Access Identifier (AID) of the INT-AIS-L alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

-
- 2** Select **Reports>Cross-Connection List** from the OCI System View Main Menu bar.

Result: The Equipment Selection Screen appears.

- 3** Select the alarmed port that was determined in Step 1.

Result: The Cross-Connection List Screen appears.

4

IF...	THEN...
the Merge Indicator field shows a value of null	one input port is providing a signal to the alarmed output port. There is an upstream failure external to the LambdaRouter TM AOS. <i>Stop! End of Task.</i>
the Merge Indicator field shows a value of Merge	two input ports are providing a signal to the alarmed output port. A forced protection switch away from the INT-AIS-L failure may be necessary. Continue to the next step.

- 5** Determine the current protection switch state of the alarmed output port. At the OCI, select **Fault>Protection Switch** from the System View Main Menu.

Result: The switch protection details appear on the screen.

- 6** Enter the AID of the alarmed output port or use the NE Explorer to select the output port by clicking on the plus (+) sign next to each entity.
-

- 7** Click **Select**.

Result: The protection switch details appear on the screen.

8

IF...	THEN...
the Current Protection Switch type of the alarmed port is forced (FRCD) and permission to release the protection switch has been obtained	release the forced protection switch. Go to “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43). Continue to the next step.
the Current Protection Switch type of the alarmed port is forced (FRCD) and permission to release the protection switch cannot be obtained	no further action will alleviate the INT-AIS-L condition. <i>Stop! End of Task.</i>
the Current Protection Switch type of the alarmed port is autonomous (AUTO) or manual (MAN)	continue to Step 11.

-
- 9** Observe the results of the releasing the protection switch. At the OCI System View, select **Reports>NE Protection Switch Activity Log**. Specify the start date and time for the log and click **OK**.

Result: The NE Protection Switch Activity Log appears.

- 10** Look for the alarmed port AID.

IF...	THEN...
the output port performed an autonomous protection switch	continue to the Step 12.
the output port did not perform an autonomous protection switch	continue to the next step.

-
- 11** Perform a forced protection switch on the alarmed port. Go to “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43).
-

- 12 Verify that the alarm condition has cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same INT-AIS-L alarm message and there are no other alarms on this port	the condition has cleared by moving the outgoing cross-connection away from the failure.
the Alarm List still displays the same INT-AIS-L alarm message	both fabric sides are in an INT-AIS-L failure condition. No further action will alleviate the condition.
the INT-AIS-L alarm has been replaced by a more severe condition such as INT-LOS, INT-LOF, INT-EBER, or INT-BER	use a forced protection switch to move the output port selector back to the fabric side in the INT-AIS-L fabric condition.

END OF STEPS



Task 310: Clearing Outgoing Loss of Frame (INT-LOF)

Purpose Use this procedure to clear an outgoing loss of frame (INT-LOF) condition. This alarm message indicates that the consecutive errored framing patterns have been detected.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element from the OCI with a Privilege Code of M4 and P1; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43)

Task Complete the following steps to clear an outgoing loss of frame (INT-LOF) condition.

- 1** Determine the Access Identifier (AID) of the INT-LOF alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

-
- 2 Select **Reports>Cross-Connection List** from the OCI System View Main Menu bar.

Result: The Equipment Selection Screen appears.

- 3 Select the alarmed port that was determined in Step 1.

Result: The Cross-Connection List Screen appears.

4

IF...	THEN...
the Merge Indicator field shows a value of null	one input port is providing a signal to the alarmed output port. There is an upstream failure external to the LambdaRouter TM AOS. <i>Stop! End of Task.</i>
the Merge Indicator field shows a value of Merge	two input ports are providing a signal to the alarmed output port. A forced protection switch away from the INT-LOF failure may be necessary. Continue to the next step.

- 5 Determine the current protection switch state of the alarmed output port. At the OCI, select **Fault>Protection Switch** from the System View Main Menu.

Result: The Switch Protection Screen appears.

- 6 Enter the AID of the alarmed output port or use the NE Explorer to select the output port by clicking on the plus (+) sign next to each entity.
-

- 7 Click **Select**.

Result: The switch protection details appear on the screen.

8

IF...	THEN...
the current protection switch state of the alarmed port is forced (FRCD) and permission to release the protection switch has been obtained	release the forced protection switch. Go to “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43). Continue to the next step.
the current protection switch state of the alarmed port is forced (FRCD) and permission to release the protection switch cannot be obtained	no further action will alleviate the INT-LOF condition. An upstream failure external to the LambdaRouter TM AOS is the source of this alarm. <i>Stop! End of Task.</i>
the current protection switch state of the alarmed port is autonomous (AUTO) or manual (MAN)	continue to Step 11.

- 9 Observe the results of the releasing the protection switch. At the OCI System View, select **Reports>NE Protection Switching Activity Log**. Specify the start date and time for the log and click **OK**.

Result: The NE Protection Switch Activity Log Screen appears.

10 Look for the alarmed port AID.

IF...	THEN...
the output port performed an autonomous protection switch	continue to the Step 12.
the output port did not perform an autonomous protection switch	continue to the next step.

11 Perform a forced protection switch on the alarmed port. Go to “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43).

- 12 Verify that the alarm condition has cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same INT-LOF alarm message and there are no other alarms for this port	the condition has cleared by moving the outgoing cross-connection away from the failure.
the Alarm List still displays the same INT-LOF alarm message	both fabric sides are in an INT-LOF failure condition. No further action will alleviate the condition. An upstream failure external to the LambdaRouter™ AOS is the source of the problem.
the Alarm List displays an INT-LOS alarm message	use a forced protection switch to move the output port selector back to the fabric side in the INT-LOF fabric condition. An upstream failure external to the LambdaRouter™ AOS is the source of the problem.
the Alarm List displays a LOS (CTNEQPT-LOS) Minor alarm	go to “Task 315: Clearing Output Port Loss of Signal (CTNEQPT-LOS)” (9-65) and perform the steps for clearing a single-sided LOS condition.
the Alarm List displays a less severe alarm message, such as INT-EBER, INT-BER, or INT-AIS-L	no further action will alleviate the INT-LOF condition. An upstream failure external to the LambdaRouter™ AOS is the source of this alarm.

END OF STEPS



Task 311: Clearing Outgoing Loss of Signal (INT-LOS)

Purpose Use this procedure to clear an outgoing loss of signal (INT-LOS) condition. This alarm message indicates that an all-zeros pattern was detected. An all-zeros pattern corresponds to no light pulses for OC-N/STM-N optical interfaces.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element from the OCI with a Privilege Code of M4 and P1; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43)

Task Complete the following steps to clear an outgoing loss of signal (INT-LOS) condition.

- 1 Determine the Access Identifier (AID) of the INT-LOS alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

-
- 2 Select **Reports>Cross-Connection List** from the OCI System View Main Menu bar.

Result: The Equipment Selection Screen appears.

- 3 Select the alarmed port that was determined in Step 1.

Result: The Cross-Connection List Screen appears.

4

IF...	THEN...
the Merge Indicator field shows a value of null	one input port is providing a signal to the alarmed output port. There is an upstream failure external to the LambdaRouter TM AOS. <i>Stop! End of Task.</i>
the Merge Indicator field shows a value of Merge	two input ports are providing a signal to the alarmed output port. A forced protection switch away from the INT-LOS failure may be necessary. Continue to the next step.

-
- 5 Determine the current protection switch state of the alarmed output port. At the OCI, select **Fault>Protection Switch** from the System View Main Menu.

Result: The Switch Protection Screen appears.

- 6 Enter the AID of the alarmed output port or use the NE Explorer to select the output port by clicking on the plus (+) sign next to each entity.
-

- 7 Click **Select**.

Result: The switch protection details appear on the screen.

8

IF...	THEN...
the current protection switch state of the alarmed port is forced (FRCD) and permission to release the protection switch has been obtained	release the forced protection switch. Go to "Task 508: Executing or Releasing a Forced or Manual Protection Switch" (11-43).
the current protection switch state of the alarmed port is forced (FRCD) and permission to release the protection switch cannot be obtained	no further action will alleviate the INT-LOS condition. <i>Stop! End of Task.</i>
the current protection switch state of the alarmed port is autonomous (AUTO) or manual (MAN)	continue to Step 12.

- 9 Observe the results of releasing the protection switch. At the OCI System View, select **Reports>NE Protection Switch Activity Log**. Specify the start date and time for the log and click **OK**.

Result: The NE Protection Switch Activity Log Screen appears.

- 10 Look for the alarmed port AID.

IF...	THEN...
the output port performed an autonomous protection switch	continue to Step 12.
the output port did not perform an autonomous protection switch	continue to the next step.

- 11 Perform a forced protection switch on the alarmed port. Go to "Task 508: Executing or Releasing a Forced or Manual Protection Switch" (11-43).

- 12 Verify that the alarm condition has cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same INT-LOS alarm message and there are no other alarms for this port	the condition has cleared by moving the outgoing cross-connection away from the failure.
the Alarm List displays same alarm	both sides are in an INT-LOS condition. No further action will alleviate the condition. An upstream failure external to the LambdaRouter™ AOS is the source of this alarm.
the Alarm List displays an LOS (CTNEQPT-LOS) Minor alarm	go to “Task 315: Clearing Output Port Loss of Signal (CTNEQPT-LOS)” (9-65) and perform the steps for clearing a single-sided LOS condition.
the Alarm List displays a less severe alarm message, such as INT-LOF, INT-EBER, INT-BER, or INT-AIS-L	no further action will alleviate the INT-LOS condition. An upstream failure external to the LambdaRouter™ AOS is the source of this alarm.

END OF STEPS



Task 312: Clearing Outgoing Signal Degrad BER (INT-BER)

Purpose Use this procedure to clear an outgoing signal degrade BER (INT-BER) condition. This alarm message indicates that the line bit error rate (BER) threshold has been crossed. This threshold is provisionable with values for 10^{-5} to 10^{-9} .

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the LambdaRouter™ AOS from the OCI with a Privilege Code of M4; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 315: Clearing Output Port Loss of Signal (CTNEQPT-LOS)” (9-65)
- “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43)

Task Complete the following steps to clear an outgoing signal degrade BER (INT-BER) condition.

- 1** Determine the Access Identifier (AID) of the INT-BER alarm by viewing the current Alarms List. At the OCI System View, select

Fault>NE Alarm List from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

-
- 2 Select **Reports>Cross-Connection List** from the OCI System View Main Menu bar.

Result: The Equipment Selection Screen appears.

-
- 3 Select the alarmed port that was determined in Step 1.

Result: The Cross-Connection List Screen appears.

4

IF...	THEN...
the Merge Indicator field shows a value of null	one input port is providing a signal to the alarmed output port. There is an upstream failure external to the LambdaRouter TM AOS <i>Stop! End of Task.</i>
the Merge Indicator field shows a value of Merge	two input ports are providing a signal to the alarmed output port. A forced protection switch away from the INT-EBER failure may be necessary. Continue to the next step.

-
- 5 Determine the current protection switch state of the alarmed output port. At the OCI, select **Fault>Protection Switch** from the System View Main Menu.

Result: The Switch Protection Screen appears.

-
- 6 Enter AID of the alarmed output port or use the NE Explorer to select the output port by clicking on the plus (+) sign next to each entity.

7 Click **Select**.

Result: The switch protection details appear on the screen.

8

IF...	THEN...
the current protection switch state of the alarmed port is forced (FRCD) and permission to release the protection switch has been obtained	release the forced protection switch. Go to “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43).
the current protection switch state of the alarmed port is forced (FRCD) and permission to release the protection switch cannot be obtained	no further action will alleviate the INT-BER condition. An upstream failure external to the LambdaRouter™ AOS is the source of this alarm. <i>Stop! End of Task.</i>
the current protection switch state of the alarmed port is autonomous (AUTO) or manual (MAN)	continue to Step 11.

9 Observe the results of releasing the protection switch. At the OCI System View, select **Reports>NE Protection Switch Activity Log**. Specify the start date and time for the log and click **OK**.

Result: The NE Protection Switch Activity Log Screen appears.

10 Look for the alarmed port AID.

IF...	THEN...
the output port performed an autonomous protection switch	continue to Step 12.
the output port did not perform an autonomous protection switch	continue to the next step.

-
- 11** Perform a forced protection switch on the alarmed port. Go to “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43).
-

- 12** Verify that the alarm condition has cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same INT-BER alarm message and there are no other alarms for this port	the condition has cleared by moving the outgoing cross-connection away from the failure.
the Alarm List displays same alarm	both sides are in an INT-BER condition. No further action will alleviate the condition. An upstream failure external to the LambdaRouter™ AOS is the source of this alarm.
the Alarm List displays a more severe alarm condition, such as INT-LOF, INT-LOS, or INT-EBER	use a forced protection switch to move the output port selector back to the fabric side in the INT-BER fabric condition. An upstream failure external to the LambdaRouter™ AOS is the source of the problem.
the Alarm List displays an LOS (CTNEQPT-LOS) Minor alarm	go to “Task 315: Clearing Output Port Loss of Signal (CTNEQPT-LOS)” (9-65) and perform the steps for clearing a single-sided LOS condition.
the Alarm List displays a less severe alarm message, such as INT-AIS-L	no further action will alleviate the INT-BER condition. An upstream failure external to the LambdaRouter™ AOS is the source of this alarm.

END OF STEPS



Task 313: Clearing Outgoing Signal Fail EBER (INT-EBER)

Purpose Use this procedure to clear an outgoing signal fail EBER (INT-EBER) condition. This alarm message indicates that the excessive bit error rate threshold has been crossed. This threshold is provisionable with values for 10^{-3} to 10^{-5} .

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element from the OCI with a Privilege Code of M4 and P1; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 315: Clearing Output Port Loss of Signal (CTNEQPT-LOS)” (9-65)
- “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43)

Task Complete the following steps to clear an outgoing signal fail EBER (INT-EBER) condition.

- 1** Determine the Access Identifier (AID) of the INT-EBER alarm by viewing the current Alarms List. At the OCI System View, select

Fault>NE Alarm List from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

-
- 2 Select **Reports>Cross-Connection List** from the OCI System View Main Menu bar.

Result: The Equipment Selection Screen appears.

-
- 3 Select the alarmed port that was determined in Step 1.

Result: The Cross-Connection List Screen appears.

4

IF...	THEN...
the Merge Indicator field shows a value of null	one input port is providing a signal to the alarmed output port. There is an upstream failure external to the LambdaRouter TM AOS. <i>Stop! End of Task.</i>
the Merge Indicator field shows a value of Merge	two input ports are providing a signal to the alarmed output port. A forced protection switch away from the INT-EBER failure may be necessary. Continue to the next step.

-
- 5 Determine the current protection switch state of the alarmed output port. At the OCI, select **Fault>Protection Switch** from the System View Main Menu.

Result: The Switch Protection Screen appears.

-
- 6 Enter AID of the alarmed output port or use the NE Explorer to select the output port by clicking on the plus (+) sign next to each entity.

7 Click **Select**.

Result: The switch protection details appear on the screen.

8

IF...	THEN...
the current protection switch state of the alarmed port is forced (FRCD) and permission to release the protection switch has been obtained	release the forced protection switch. Go to “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43).
the current protection switch state of the alarmed port is forced (FRCD) and permission to release the protection switch cannot be obtained	no further action will alleviate the INT-EBER condition. An upstream failure external to the LambdaRouter™ AOS is the source of this alarm. <i>Stop! End of Task</i>
the current protection switch state of the alarmed port is autonomous (AUTO) or manual (MAN)	continue to Step 11.

9 Observe the results of the releasing the protection switch. At the OCI System View, select **Reports>NE Protection Switch Activity Log**. Specify the start date and time for the log and click **OK**.

Result: The NE Protection Switch Activity Log Screen appears.

10 Look for the alarmed port AID.

IF...	THEN...
the output port performed an autonomous protection switch	continue to Step 12.
the output port did not perform an autonomous protection switch	continue to the next step.

-
- 11** Perform a forced protection switch on the alarmed port. Go to “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43).
-

- 12** Verify that the alarm condition has cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same INT-EBER alarm message and there are no other alarms for this port	the condition has cleared by moving the outgoing cross-connection away from the failure.
the Alarm List displays the same INT-EBER alarm message	both fabric sides are in an INT-EBER failure condition. No further action will alleviate the condition. An upstream failure external to the LambdaRouter TM AOS is the source of the problem.
the Alarm List displays an LOS (CTNEQPT-LOS) Minor alarm	go to “Task 315: Clearing Output Port Loss of Signal (CTNEQPT-LOS)” (9-65) and perform the steps to clear a single-sided LOS condition.
the Alarm List displays a less severe alarm message, such as INT-BER, or INT-AIS-L	both fabric sides are in an INT-EBER failure condition. No further action will alleviate the condition. An upstream failure external to the LambdaRouter TM AOS is the source of the problem.
the Alarm List displays a more severe alarm message, such as INT-LOS, or INT-LOF	use a forced protection switch to move the output port selector back to the fabric side in the INT-EBER condition. No further action will alleviate the INT-LOS condition. An upstream failure external to the LambdaRouter TM AOS is the source of this alarm.

END OF STEPS



Task 314: Clearing Output Port Extraneous Signal (INT-ESIG)

Purpose Use this procedure to clear an output port extraneous signal condition. This alarm message indicates that the output power monitor is detecting a signal when the port is not dedicated to any valid cross-connect. This alarm could be caused by a faulty Port Unit, that is Optical Cross-Connect Interface circuit packs.

- Before you begin** Before beginning this task:
- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
 - Use the electrostatic discharge (ESD) strap.
 - Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
 - Read and follow all safety instructions in Chapter 1, “Safety”.
 - Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
 - Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
 - Log in to the network element from the OCI with a Privilege Code of M1 and P1; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:



WARNING

Unterminated optical connectors may emit invisible laser radiation. Eye damage may occur if beam is viewed directly or with improper optical instruments. Avoid direct exposure to beam.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system, use a static ground wrist strap

to prevent electrostatic discharge damage to sensitive components.

- Related information** For related information, see
- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
 - “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

Task Complete the following steps to clear an output port extraneous signal condition.

- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

- 2 Select **View>Equipment Details** from the OCI System View Main Menu bar.

Result: The Equipment Selection Screen appears.

- 3 Select the port identified by the alarm.

Result: The View Och Port Details Screen appears populated with data for the input port. To view output port details, click on the Output Port tab.

- 4 Determine the output port **Primary State** and **Secondary State**.

IF...	THEN...
the Primary State is OOS-AU and the Secondary State is FLT	continue to the next step.

IF...	THEN...
the Primary State is not OOS-AU or the Secondary State is not FLT	return to Step 1 only once. Be sure to locate the alarmed port. If Step 1 has been repeated and the Primary State is still not OOS-AU or the Secondary State is still not FLT, then contact Lucent Technical Support. <i>Stop! End of Task.</i>

5 Determine the output port **Cross-Connection Status**.

IF...	THEN...
the Cross-Connection Status is BUSYSIDE0	continue to the next step.
the Cross-Connection Status is BUSYSIDE1	continue to Step 7.
the Cross-Connection Status is IDLE	continue to Step 8.
the Cross-Connection Status is AIRP_RSV	the output port is involved in a temporary cross-connection for link discovery and verification purposes. Wait one minute and then return to Step 1.
the Cross-Connection Status is BUSYBOTH	the output port is cross-connected through both fabrics. Since no fabric side is idle, the output port extraneous signal alarm should not be raised. Return to Step 1 only once. Be sure to locate the alarmed port. If Step 1 has been repeated and the Cross-Connection Status is still BUSYBOTH, then contact Lucent Technical Support. <i>Stop! End of Task.</i>

6 Determine the output port Side 1 Signal Status.

IF...	THEN...
the Side 1 Signal Status is DOS	note the value of the following field: Output SWIP Association - Fabric 1. Continue to Step 9.

IF...	THEN...
the Side 1 Signal Status is LOS	return to Step 1 only once. Be sure to locate the alarmed port. If Step 1 has been repeated and the Side 1 Signal Status is still LOS, then contact Lucent Technical Support. <i>Stop! End of Task.</i>

7 Determine the output port Side 0 Signal Status.

IF...	THEN...
the Side 0 Signal Status is DOS	note the value of the following field: Output SWIP Association - Fabric 0. Continue to Step 9.
the Side 0 Signal Status is LOS	return to Step 1 only once. Be sure to locate the alarmed port. If Step 1 has been repeated and the Side 0 Signal Status is still LOS, then contact Lucent Technical Support. <i>Stop! End of Task.</i>

8 Determine the output port Side 0 Signal Status and Side 1 Signal Status.

IF...	THEN...
Side 0 Signal Status is DOS and the Side 1 Signal Status is DOS	note the values of the following fields: Output SWIP Association - Fabric 0 Output SWIP Association - Fabric 1 Continue to the next step.
Side 0 Signal Status is LOS and the Side 1 Signal Status is DOS	note the values of the following fields: Output SWIP Association - Fabric 1 Continue to the next step.
Side 0 Signal Status is DOS and the Side 1 Signal Status is LOS	note the values of the following fields: Output SWIP Association - Fabric 0 Continue to the next step.

IF...	THEN...
Side 0 Signal Status is LOS and the Side 1 Signal Status is LOS	return to Step 1 only once. Be sure to locate the alarmed port. If Step 1 has been repeated and the Side 0 Signal Status and Side 1 Signal Status are still LOS, then contact Lucent Technical Support. <i>Stop! End of task.</i>

9 Click **Close** at the bottom of the window.

10 Find the output SWIP(s) indicated by the Output SWIP Association - Fabric 0 or Output SWIP Association - Fabric 1 fields noted in the previous steps and detach the optical fiber(s). Put a dust cap on the end of the fiber(s).

11 Attach an optical power meter to the output SWIP(s) and turn it on.

IF...	THEN...
the power level is above -26 dBm	there is a critical problem with the SWIP and the Switch Shelf (SWS). Detach and turn off the optical power meter. Attach a white dust cover with a yellow label at that output SWIP.
the power level is below -26 dBm	there is no extraneous signal present at the Fabric 0 SWIP. Detach and turn off the optical power meter. Attach a white dust cover at the SWIP.

12

IF...	THEN...
there is no critical problem with either SWIP	continue to the next step.
there is a critical problem with a SWIP	contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 13** Remove the dust caps from the fiber(s) and the dust cover(s) from the SWIP(s) and clean the fiber(s) and connectors. Go to “Task 501: Cleaning LC and MPX Connectors” (11-8). Then re-attach the optical fiber(s) to their corresponding output SWIP(s).
-

- 14** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port extraneous signal alarm message	the alarm has cleared. <i>Stop! End of Task.</i>
the same output port extraneous signal alarm message is displayed	the power monitor of the output port is faulty. Continue to the next step.

.....

- 15** Replace the Port Unit that contains the alarmed output port. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).
-

- 16** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port extraneous signal alarm message	the alarm condition has cleared.
the same output port extraneous signal alarm message is displayed	contact Lucent Technical Support.

.....

END OF STEPS

.....



Task 315: Clearing Output Port Loss of Signal (CTNEQPT-LOS)

Purpose Use this procedure to clear an output port loss of signal (CTNEQPT-LOS) condition. This alarm message indicates that the output port power monitor is detecting insufficient signal strength on a channel that had normal signal strength at the input port power monitor.

This condition suggests a malfunction in the switching fabric or in the mirror arrangements, but could be caused by a malfunction of any of the following:

- HVDAC circuit pack
- Port Unit (Optical Cross-Connect Interface circuit pack)
- Input/Output Switch Interface Point (SWIP)
- Switch Shelf (SWS)
- Connections
- Cabling

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the LambdaRouter™ AOS with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:



WARNING

Unterminated optical connectors may emit invisible laser radiation. Eye damage may occur if beam is viewed directly or with improper optical instruments. Avoid direct exposure to beam.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 4, “Alarm Messages and Trouble-Clearing Tasks Background”
- “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3)
- “Task 303: Clearing HVDAC High-Voltage Cable Disconnect (CONTCOM)” (9-15)
- “Task 320: Clearing Switch Interface Point Suspect (CTNEQPT)” (9-120)
- “Task 501: Cleaning LC and MPX Connectors” (11-8)
- “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

Task

Complete the following steps to clear an output port loss of signal (LOS).

- 1 Determine the Access Identifier (AID) of the alarm and the alarm severity by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

2

IF...	THEN...
the output loss of signal alarm is Minor (MN)	there is a single-sided output port loss of signal on a duplex cross-connection. Insufficient signal strength has been detected from only one fabric side. Go to “SE 315-1: Determining ports and SWIPs involved with single-sided output port LOS alarm” (9-68).
the output loss of signal alarm is Critical (CR)	there is an output port complete loss of signal. Insufficient signal strength has been detected from both fabric sides. Go to “SE 315-4: Determining ports and SWIPs involved with double-sided output port LOS alarm” (9-86).

END OF STEPS

**SE 315-1: Determining
ports and SWIPs involved
with single-sided output
port LOS alarm**

Important! When modifying port-to-SWIP associations, some SWIPs will move to the alarmed Suspect state.

Use the steps below to determine the following for the input and output ports:

- Access Identifiers (AIDs)
 - Port types
 - Interface Formats (IFMTs) and Interface Optics (IOPTs), if necessary
 - Associated SWIPs
-

- 1** Determine the Access Identifier (AID) of the Loss of Signal alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

- 2** Select **View>View Equipment Details** on the System View Main Menu bar.

Result: The View Equipment Details Screen appears.

- 3** Select the port identified by the alarm.

Result: The View Port Details Screen appears populated with input port information. To view output port details, click on the Output Port tab.

4 Note the value of the **active** and the **suspect fabric side** fields as follows:

IF...	THEN...
the Side 0 Status field is equal to Detection of Service (DOS) and the Side 1 Status field is equal to LOS	in the case of LambdaRouter™ AOS 128, the SWMG-0 will be known as the active fabric side and SWMG-1 as the suspect fabric side throughout this procedure. In the case of LambdaRouter™ AOS 256, SWS-0 will be known as the active fabric side and SWS-1 as the suspect fabric side throughout this procedure.
the Side 0 Status field is equal to LOS and the Side 1 Status field is equal to DOS	in the case of LambdaRouter™ AOS 128, the SWMG-1 will be known as the active fabric side and SWMG-0 as the suspect fabric side throughout this procedure. In the case of LambdaRouter™ AOS 256, SWS-1 will be known as the active fabric side and SWS-0 as the suspect fabric side throughout this procedure.
the Side 0 Status field and the Side 1 Status field are equal to LOS	a double-sided LOS condition exists. Clear the double-sided LOS condition by performing SE 213-4. <i>Stop! End of Task.</i>
the Side 0 Status field and the Side 1 Status field are equal to DOS	the condition has cleared. At the OCI System View, select Fault>NE Alarm List from the Main Menu bar. If the Alarm List displays the output port loss of signal alarm, contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 5 Note the **Output SWIP Association** for the suspect fabric side. This SWIP will be referred to as the **output SWIP** throughout the rest of the procedure.

IF...	THEN...
the suspect fabric side is SWMG-0, in the case of a LambdaRouter TM AOS 128	the output SWIP equals the Output SWIP Association - Fabric 0 value.
the suspect fabric side is SWS-0, in the case of a LambdaRouter TM AOS 256	the output SWIP equals the Output SWIP Association - Fabric 0 value.
the suspect fabric side is SWMG-1, in the case of a LambdaRouter TM AOS 128	the output SWIP equals the Output SWIP Association - Fabric 1 value.
the suspect fabric side is SWS-1, in the case of a LambdaRouter TM AOS 256	the output SWIP equals the Output SWIP Association - Fabric 1 value.

-
- 6 From the System View Main Menu bar, click on the shelf, then right-click on the port identified by the alarm.

Result: The View Cross-Connections Screen appears.

-
- 7 Note the **Source (Src)** value for the suspect fabric side where the **Destination (Dest)** value equals the AID value of the alarmed port. The **Source** value is the input port cross-connected to the alarmed output port for the suspect fabric side. This **Source** value will be referred to as the **source port** throughout the rest of the procedure. Click **Close** at the bottom of the window.

-
- 8 Select **View>View Equipment Details** on the System View Main Menu bar.

Result: The View Equipment Details Screen appears.

-
- 9 Select the source port.

Result: The View Och Port Details for och-x-x-x Screen appears.

-
- 10** Note the **Input SWIP Association** for the suspect fabric side. This SWIP will be referred to as the **input SWIP** throughout the rest of the procedure. If a transparent port is involved, also note the **Interface Format** and **Interface Optics**.

IF...	THEN...
the suspect fabric side is SWMG-0, in the case of a LambdaRouter TM AOS 128	the input SWIP equals the Input SWIP Association - Fabric 0 value.
the suspect fabric side is SWS-0, in the case of a LambdaRouter TM AOS 256	the input SWIP equals the Input SWIP Association - Fabric 0 value.
the suspect fabric side is SWMG-1, in the case of a LambdaRouter TM AOS 128	the input SWIP equals the Input SWIP Association - Fabric 1 value.
the suspect fabric side is SWS-1, in the case of a LambdaRouter TM AOS 256	the input SWIP equals the input SWIP Association - Fabric 1 value.

-
- 11** Go to “SE 315-2: Checking condition of HVDAC circuit packs and cables” (9-72).

END OF STEPS

SE 315-2: Checking condition of HVDAC circuit packs and cables

Use the following steps to check the condition of the HVDAC circuit packs identified by the OCI Alarm List and the HVDAC cables.

- 1 Verify that the HVDAC circuit pack associated with the input SWIP has no visible damage and is correctly inserted in its slot. The HVDAC circuit pack is located in the High-Voltage Shelf (HVS) directly above the suspect fabric side. The association of the SWIP to an HVDAC circuit pack is shown in “SE-315-8: SWIP Association to HVDAC Circuit Pack Table” (9-106).

IF...	THEN...
the HVDAC circuit pack associated with the input SWIP has visible damage	remove the HVDAC circuit pack and insert a spare using “ <i>Task 517: Removing, Inserting, or Replacing a Circuit Pack</i> ” (11-75).
the HVDAC circuit pack associated with the input SWIP is not correctly inserted in its slot	remove the HVDAC circuit pack and insert the same circuit pack using “ <i>Task 517: Removing, Inserting, or Replacing a Circuit Pack</i> ” (11-75).
the HVDAC circuit pack associated with the input SWIP has no visible damage and is correctly inserted in its slot	no action is necessary. Continue to the next step.

- 2 Check the Alarm List to determine if an HVDAC High-Voltage Cable Fault (CONTCOM) alarm exists for the HVDAC cable associated with the input SWIP. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display an HVDAC High-Voltage Cable Fault (CONTCOM) alarm for the HVDAC cable associated with the input SWIP	continue to the next step.

IF...	THEN...
the Alarm List displays an HVDAC High-Voltage Cable Fault (CONTCOM) alarm for the HVDAC cable associated with the input SWIP	clear the alarm condition by going to “Task 303: Clearing HVDAC High-Voltage Cable Disconnect (CONTCOM)” (9-15). Continue to the next step.

- 3 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same output port loss of signal alarm	the alarm condition has not cleared. Continue to the next step.

- 4 Determine the association of output SWIP to HVDAC circuit pack. Go to “SE-315-8: SWIP Association to HVDAC Circuit Pack Table (continued)” (9-107)

IF...	THEN....
the output SWIP is controlled by the same HVDAC circuit pack as the input SWIP	continue to “SE 315-3: Cleaning fiber connectors and replacing circuit packs and SWIPs” (9-76).
the output SWIP is not controller by the same HVDAC circuit pack as the input SWIP	there may be a problem with the HVDAC circuit pack associated with the output SWIP. Continue to the next step.

-
- 5 Verify that the HVDAC circuit pack associated with the output SWIP has no visible damage and is correctly inserted in its slot.

IF...	THEN...
the HVDAC circuit pack associated with the output SWIP has visible damage	remove the HVDAC circuit pack and insert a spare using “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).
the HVDAC circuit pack associated with the output SWIP is not correctly inserted in its slot	remove the HVDAC circuit pack and insert the same circuit pack using “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).
the HVDAC circuit pack associated with the output SWIP has no visible damage and is correctly inserted in its slot	no action is necessary. Continue to the next step.

-
- 6 Check the Alarm List to determine if an HVDAC High-Voltage Cable Fault (CONTCOM) alarm exists for the HVDAC cable associated with the output SWIP. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display an HVDAC High-Voltage Cable Fault (CONTCOM) alarm for the HVDAC cable associated with the output SWIP	continue to the next step.
the Alarm List displays an HVDAC High-Voltage Cable Fault (CONTCOM) alarm for the HVDAC cable associated with the output SWIP	clear the alarm condition by going to “Task 303: Clearing HVDAC High-Voltage Cable Disconnect (CONTCOM)” (9-15) Continue to the next step.

-
- 7 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List does display the same output port loss of signal alarm	the alarm condition has not cleared. Go to “SE 315-3: Cleaning fiber connectors and replacing circuit packs and SWIPs” (9-76).

SE 315-3: Cleaning fiber connectors and replacing circuit packs and SWIPs

Use the following steps to clean the FDP connectors.

- 1 Locate the input SWIP connector on the suspect fabric side at the FDP. Detach and clean the optical fiber connector at the input SWIP location at the FDP. Go to “Task 501: Cleaning LC and MPX Connectors” (11-8). Attach a white dust cover to the input SWIP.

- 2 XXX Attach the fiber to an optical power meter. Look up the value of the **Signal Level, End of Input SWIP Cable, dBm** in “SE 315-7: Interface Formats, Optics, and Associated Power Levels Table” (9-104) that corresponds to the values noted in Step 10 of “SE 315-1: Determining ports and SWIPs involved with single-sided output port LOS alarm” (9-68).

3

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	continue to the next step.
the optical power meter detects a power level greater than the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	a signal is present at the input SWIP. Continue to Step 12.

- 4 Clean the connectors at the input port for the suspect fabric side.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

-
- 5 At the optical power meter, check the power level at the input port backplane.

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	continue to the next step.
the optical power meter detects a power level greater than the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	a signal is present at the input port backplane. The input port to input SWIP cable is faulty. Contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 6 Replace the Port Unit containing the **source port** with a spare Port Unit. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).

-
- 7 Take another reading of the input SWIP fiber with the optical power meter at the input port backplane.

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	continue to the next step.
the optical power meter detects a power level greater than the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	continue to Step 9.

- 8 At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List displays an incoming loss of signal (LOS) alarm against the source port	the source input port on the old circuit pack was erroneously detecting signal. Clean and reattach cables. <i>Stop! End of Task.</i> Reference: “Task 501: Cleaning LC and MPX Connectors” (11-2)
the Alarm List does not display an incoming loss of signal (LOS) alarm against the source port	there is a possible backplane or cabling problem. Contact Lucent Technical Support. <i>Stop! End of Task.</i>

- 9 Detach the optical power meter from the input port backplane. Clean and reattach the connector to the input port backplane that it was detached from in Step 4.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

- 10 Attach the fiber from the input SWIP to the optical power meter. Check the power level.

11

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	the input port to input SWIP cable is faulty. Contact Lucent Technical Support <i>Stop! End of Task.</i>
the optical power meter detects a power level greater than the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	continue to the next step.

-
- 12** Detach the optical power meter, clean the input SWIP connector, and reattach it to the input SWIP.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

- 13** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same output port loss of signal alarm	the output SWIP cable optical connector may be dirty. Continue to the next step.

- 14** Locate the output SWIP on the suspect fabric side at the FDP. Detach and clean the optical fiber connected to the output SWIP. Go to “Task 501: Cleaning LC and MPX Connectors” (11-8). Attach a dust cap to the end of the fiber.
-

- 15** Attach the optical power meter to the output SWIP. Look up the value of the **Signal Level, Output SWIP, dBm** in “SE 315-7: Interface Formats, Optics, and Associated Power Levels Table” (9-104) that corresponds to the values of noted in Step 15 of “SE 315-1: Determining ports and SWIPs involved with single-sided output port LOS alarm” (9-68).

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, Output SWIP, dBm value	continue to Step 23.
the optical power meter detects a power level greater than the Signal Level, Output SWIP, dBm value	a signal is present at the output SWIP. Continue to the next step.

-
- 16** Detach the optical power meter from the output SWIP, clean the connector, and reattach the optical fiber to the output SWIP.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

- 17** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same output port loss of signal alarm	the alarm condition has not cleared. Continue to the next step.

- 18** Clean the connectors at the output port circuit pack at the backplane.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

- 19** Attach the optical power meter to the end of the output SWIP to output port cable at the output port backplane. Check the power level.

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, Output SWIP, dBm value	the output SWIP to output port cable is faulty. Contact Lucent Technical Support. <i>Stop! End of Task.</i>
the optical power meter detects a power level greater than the Signal Level, Output SWIP, dBm value	detach the optical power meter, clean the connector, and reattach the optical cable to the output port backplane. Continue to the next step. Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

-
- 20** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same output port loss of signal alarm	continue to the next step.

-
- 21** Replace the Port Unit containing the **alarmed** port with a spare Port Unit. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).

-
- 22** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List does display the same output port loss of signal alarm	there is a possible backplane or cabling problem. Contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 23** From the System View, click on the SWS, then the fabric side where the output SWIP to be disassociated is located.

Result: The SWIP Display Screen appears.

-
- 24** Right-click on the output SWIP and select **Disassociate SWIP** from the pop-up menu.

Result: The Replacement SWIP Selection Screen appears.

25 Select a SWIP AID in the Replacement SWIP field.

IF...	THEN...
no spare SWIPs are available	click Close at the bottom of the window. Perform “Task 320: Clearing Switch Interface Point Suspect (CTNEQPT)” (9-120) procedure on suspect output SWIPs on the suspect fabric side until the procedure produces a functioning spare output SWIP. When that procedure has been successfully completed, return to the previous step. If there are no functioning spare output SWIPs after all suspect output SWIPs have been cleared, contact Lucent Technical Support. <i>Stop! End of Task.</i>
at least one spare SWIP is available	Go to “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3) to select the appropriate spare SWIP. Continue to the next step.

26 Click **Apply**, then click **Yes** to confirm the action.

Result: A Switch Interface Point Suspect alarm will occur against the original output SWIP.

The output SWIP is referred to as the **original output SWIP** and the spare output SWIP is referred to as the **output SWIP** throughout the rest of the procedure.

27 Click **Close** at the bottom of the window after the confirmation box closes.

28 Detach the optical fiber, if necessary, from the original output SWIP. Terminate the original output SWIP with a white dust cover with a yellow label.

-
- 29** Attach the optical power meter to the output SWIP at the FDP. Look up the value of the **Signal Level, Output SWIP, dBm** in “SE 315-7: Interface Formats, Optics, and Associated Power Levels Table” (9-104) that corresponds to the values of noted in Step 10 of “SE 315-1: Determining ports and SWIPs involved with single-sided output port LOS alarm” (9-68).

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, Output SWIP, dBm value	continue to next step.
the optical power meter detects a power level greater than the Signal Level, Output SWIP, dBm value	a signal is present at the output SWIP. Return to Step 16.

-
- 30** From the System View, click on the SWS, then the fabric side where the input SWIP to be disassociated is located.

Result: The SWIP Display Screen appears.

-
- 31** Right-click on the input SWIP and select **Disassociate SWIP** from the pop-up menu.

Result: The Replacement SWIP Selection Screen appears.

32 Select a SWIP AID in the Replacement SWIP field.

IF...	THEN...
no spare SWIPs are available	click Close at the bottom of the window. Perform the “Task 320: Clearing Switch Interface Point Suspect (CTNEQPT)” (9-120) procedure on suspect input SWIPs on the suspect fabric side until the procedure produces a functioning spare input SWIP. When that procedure has been successfully completed, return to the previous step. If there are no functioning spare input SWIPs after all suspect input SWIPs have been cleared, contact Lucent Technical Support. <i>Stop! End of Task.</i>
at least one spare SWIP is available	Go to “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3) to select the appropriate spare SWIP. Continue to the next step.

33 Click **Apply**, then click **Yes** to confirm your action.

Result: A Switch Interface Point Suspect alarm occurs against the original input SWIP.

The input SWIP is referred to as the **original input SWIP** and the spare input SWIP is referred to as the **input SWIP** throughout the rest of the procedure.

34 Click **Close** at the bottom of the window after the confirmation box closes.

35 Detach the optical fiber from the original input SWIP. Terminate the original input SWIP with a white dust cover with a yellow label.

-
- 36** First clean then connect the optical fiber to the input SWIP (spare).

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

- 37** Attach the optical power meter to the output SWIP at the FDP. Look up the value of the **Signal Level, Output SWIP, dBm** in “SE 315-7: Interface Formats, Optics, and Associated Power Levels Table” (9-104) that corresponds to the values of noted in Step 10 of “SE 315-1: Determining ports and SWIPs involved with single-sided output port LOS alarm” (9-68).

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, Output SWIP, dBm value	continue to Step 23 only once. If the power level is still too low, contact Lucent Technical Support. <i>Stop! End of Task.</i>
the optical power meter detects a power level greater than the Signal Level, Output SWIP, dBm value	a signal is present at the output SWIP. Return to Step 16.

SE 315-4: Determining ports and SWIPs involved with double-sided output port LOS alarm

Important! When modifying port-to-SWIP associations, some SWIPs will move to the alarmed Suspect state.

Use the steps below to determine the following for the input and output ports:

- Access Identifiers (AIDs)
- Port types
- Interface Formats (IFMTs) and Interface Optics (IOPTs), if necessary
- Associated SWIPs

-
- 1 Determine the Access Identifier (AID) of the Loss of Signal alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

-
- 2 Select **View>View Equipment Details** on the System View Main Menu bar.

Result: The View Equipment Details Screen appears.

-
- 3 Select the port identified by the alarm.

Result: The View Port Details Screen appears populated with input port information. To view output port details, click on the Output Port tab.

-
- 4 Note the value of the **active** and the **suspect fabric side** fields as follows:

IF...	THEN...
the Side 0 Status field is equal to Detection of Service (DOS) and the Side 1 Status field is equal to LOS	a single-sided LOS condition exists. Clear the condition by performing SE 213-1 through SE 213-3. <i>Stop! End of Task.</i>

IF...	THEN...
the Side 0 Status field is equal to LOS and the Side 1 Status field is equal to DOS	a single-sided LOS condition exists. Clear the condition by performing SE 213-1 through SE 213-3. <i>Stop! End of Task.</i>
the Side 0 Status field and the Side 1 Status field are equal to LOS	a double-sided LOS condition exists. In the case of LambdaRouter™ AOS 128, the SWMG-0 will be known as the active fabric side and SWMG-1 as the suspect fabric side throughout this procedure. In the case of LambdaRouter™ AOS 256, SWS-0 will be known as the active fabric side and SWS-1 as the suspect fabric side throughout this procedure. Continue to the next step.
the Side 0 Status field and the Side 1 Status field are equal to DOS	the condition has cleared. At the OCI System View, select Fault>NE Alarm List from the Main Menu bar. If the Alarm List displays the output port loss of signal alarm, contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 5 Note the **Output SWIP Association-Fabric 1**. This SWIP will be referred to as the **output SWIP** throughout the rest of the procedure.
-

- 6 From the System View Main Menu bar, click on the shelf, then right-click on the port identified by the alarm.

Result: The View Cross-Connections Screen appears.

- 7 Note the **Source (Src)** value for the suspect fabric side where the **Destination (Dest)** value equals the AID value of the alarmed port. The **Source** value is the input port cross-connected to the alarmed output port for the suspect fabric side. This **Source** value will be referred to as the **source port** throughout the rest of the procedure. Click **Close** at the bottom of the window.

-
- 8** Select **View>View Equipment Details** on the System View Main Menu bar.

Result: The View Equipment Details Screen appears.

- 9** Select the source port.

Result: The View Och Port Details for och-x-x-x Screen appears.

- 10** Note the **Input SWIP Association-Fabric 1**. This SWIP will be referred to as the **input SWIP** throughout the rest of the procedure. If a transparent port is involved, also note the **Interface Format** and **Interface Optics**.
-

- 11** Go to “SE 315-5: Checking Condition of HVDAC Circuit Packs and Cables” (9-89).

END OF STEPS

SE 315-5: Checking Condition of HVDAC Circuit Packs and Cables

Use the following steps to check the condition of the HVDAC circuit packs identified by the OCI Alarm List and the HVDAC cables.

- 1 Verify that the HVDAC circuit pack associated with the input SWIP has no visible damage and is correctly inserted in its slot. The HVDAC circuit pack is located in the High-Voltage Shelf (HVS) directly above the suspect fabric side. The association of the SWIP to an HVDAC circuit pack is shown in “SE-315-8: SWIP Association to HVDAC Circuit Pack Table” (9-106).

IF...	THEN...
the HVDAC circuit pack associated with the input SWIP has visible damage	remove the HVDAC circuit pack and insert a spare using “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).
the HVDAC circuit pack associated with the input SWIP is not correctly inserted in its slot	remove the HVDAC circuit pack and insert the same circuit pack using “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).
the HVDAC circuit pack associated with the input SWIP has no visible damage and is correctly inserted in its slot	no action is necessary. Continue to the next step.

- 2 Check the Alarm List to determine if an HVDAC High-Voltage Cable Fault (CONTCOM) alarm exists for the HVDAC cable associated with the input SWIP. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display an HVDAC High-Voltage Cable Fault (CONTCOM) alarm for the HVDAC cable associated with the input SWIP	continue to the next step.

IF...	THEN...
the Alarm List displays an HVDAC High-Voltage Cable Fault (CONTCOM) alarm for the HVDAC cable associated with the input SWIP	clear the alarm condition by going to “Task 303: Clearing HVDAC High-Voltage Cable Disconnect (CONTCOM)” (9-15). Continue to the next step.

- 3 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same critical output port loss of signal alarm	the alarm condition has not cleared. Continue to the next step.
the Alarm List displays a minor output port loss of signal alarm	a single-sided LOS condition exists. Clear the condition by performing SE 213-1 through SE 213-3. <i>Stop! End of Task.</i>

- 4 Determine the association of output SWIP to HVDAC circuit pack. Go to “SE-315-8: SWIP Association to HVDAC Circuit Pack Table (continued)” (9-107).

IF...	THEN....
the output SWIP is controlled by the same HVDAC circuit pack as the input SWIP	continue to “SE 315-6: Cleaning fiber connectors and replacing circuit packs and SWIPs” (9-93).
the output SWIP is not controller by the same HVDAC circuit pack as the input SWIP	there may be a problem with the HVDAC circuit pack associated with the output SWIP. Continue to the next step.

- 5 Verify that the HVDAC circuit pack associated with the output SWIP has no visible damage and is correctly inserted in its slot.

IF...	THEN...
the HVDAC circuit pack associated with the output SWIP has visible damage	remove the HVDAC circuit pack and insert a spare using “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).
the HVDAC circuit pack associated with the output SWIP is not correctly inserted in its slot	remove the HVDAC circuit pack and insert the same circuit pack using “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).
the HVDAC circuit pack associated with the output SWIP has no visible damage and is correctly inserted in its slot	no action is necessary. Continue to the next step.

- 6 Check the Alarm List to determine if an HVDAC High-Voltage Cable Fault (CONTCOM) alarm exists for the HVDAC cable associated with the output SWIP. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display an HVDAC High-Voltage Cable Fault (CONTCOM) alarm for the HVDAC cable associated with the output SWIP	continue to the next step.
the Alarm List displays an HVDAC High-Voltage Cable Fault (CONTCOM) alarm for the HVDAC cable associated with the output SWIP	clear the alarm condition by going to “Task 303: Clearing HVDAC High-Voltage Cable Disconnect (CONTCOM)” (9-15). Continue to the next step.

-
- 7 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List does display the same critical output port loss of signal alarm	the alarm condition has not cleared. Go to “SE 315-6: Cleaning fiber connectors and replacing circuit packs and SWIPs” (9-93).
the Alarm List displays a minor output port loss of signal alarm	a single-sided LOS condition exists. Clear the condition by performing SE 213-1 through SE 213-3. <i>Stop! End of Task.</i>

SE 315-6: Cleaning fiber connectors and replacing circuit packs and SWIPs

Use the following steps to clean the FDP connectors.

-
- 1 Locate the input SWIP connector on the suspect fabric side at the FDP. Detach and clean the optical fiber connector at the input SWIP location at the FDP. Go to “Task 501: Cleaning LC and MPX Connectors” (11-8). Attach a white dust cover to the input SWIP.
-

- 2 Attach the fiber to an optical power meter. Look up the value of the **Signal Level, End of Input SWIP Cable, dBm** in “SE 315-7: Interface Formats, Optics, and Associated Power Levels Table” (9-104) that corresponds to the values noted in Step 10 of “SE 315-4: Determining ports and SWIPs involved with double-sided output port LOS alarm” (9-86).
-

3

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	continue to the next step.
the optical power meter detects a power level greater than the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	a signal is present at the input SWIP. Continue to Step 12.

- 4 Clean the connectors at the input port for the suspect fabric side.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

-
- 5 At the optical power meter, check the power level at the input port backplane.

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	continue to the next step.
the optical power meter detects a power level greater than the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	a signal is present at the input port backplane. The input port to input SWIP cable is faulty. Contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 6 Replace the Port Unit containing the **source port** with a spare Port Unit. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).

-
- 7 Take another reading of the input SWIP fiber with the optical power meter at the input port backplane.

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	continue to the next step.
the optical power meter detects a power level greater than the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	continue to Step 10.

- 8 At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List displays an incoming loss of signal (LOS) alarm against the source port	the source input port on the old circuit pack was erroneously detecting signal. Clean and reattach cables at both ends. Continue to the next step. Reference: "Task 501: Cleaning LC and MPX Connectors" (11-2)
the Alarm List does not display an incoming loss of signal (LOS) alarm against the source port	there is a possible backplane or cabling problem. Contact Lucent Technical Support. <i>Stop! End of Task.</i>

- 9 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same critical output port loss of signal alarm	contact Lucent Technical Support. <i>Stop! End of Task.</i>
the Alarm List displays a minor output port loss of signal alarm	a single-sided LOS condition exists. Clear the condition by performing SE 213-1 through SE 213-3. <i>Stop! End of Task.</i>

- 10 Detach the optical power meter from the input port backplane. Clean and reattach the connector to the input port backplane that it was detached from in Step 4.

Reference: "Task 501: Cleaning LC and MPX Connectors" (11-8)

-
- 11** Attach the fiber from the input SWIP to the optical power meter. Check the power level.
-

12

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	the input port to input SWIP cable is faulty. Contact Lucent Technical Support. <i>Stop! End of Task.</i>
the optical power meter detects a power level greater than the Signal Level, End of Input SWIP Cable, dBm value determined in Step 2	continue to the next step.

- 13** Detach the optical power meter, clean the input SWIP connector, and reattach it to the input SWIP.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

- 14** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same critical output port loss of signal alarm	the output SWIP cable optical connector may be dirty. Continue to the next step.
the Alarm List displays a minor output port loss of signal alarm	a single-sided LOS condition exists. Clear the condition by performing SE 213-1 through SE 213-3. <i>Stop! End of Task.</i>

- 15 Locate the output SWIP on the suspect fabric side at the FDP. Detach and clean the optical fiber connected to the output SWIP. Go to “Task 501: Cleaning LC and MPX Connectors” (11-8). Attach a dust cap to the end of the fiber.

- 16 Attach the optical power meter to the output SWIP. Look up the value of the **Signal Level, Output SWIP, dBm** in “SE 315-7: Interface Formats, Optics, and Associated Power Levels Table” (9-104) that corresponds to the values of noted in Step 10 of “SE 315-4: Determining ports and SWIPs involved with double-sided output port LOS alarm” (9-86).

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, Output SWIP, dBm value	continue to Step 24.
the optical power meter detects a power level greater than the Signal Level, Output SWIP, dBm value	a signal is present at the output SWIP. Continue to the next step.

- 17 Detach the optical power meter from the output SWIP, clean the connector, and reattach the optical fiber to the output SWIP.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

- 18 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same critical output port loss of signal alarm	the alarm condition has not cleared. Continue to the next step.

IF...	THEN...
the Alarm List displays a minor output port loss of signal alarm	a single-sided LOS condition exists. Clear the condition by performing SE 213-1 through SE 213-3. <i>Stop! End of Task.</i>

-
- 19** Clean the connectors at the output port circuit pack at the backplane.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

-
- 20** Attach the optical power meter to the end of the output SWIP to output port cable at the output port backplane. Check the power level.

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, Output SWIP, dBm value	the output SWIP to output port cable is faulty. Contact Lucent Technical Support. <i>Stop! End of Task.</i>
the optical power meter detects a power level greater than the Signal Level, Output SWIP, dBm value	detach the optical power meter, clean the connector, and reattach the optical cable to the output port backplane. Continue to the next step. Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

-
- 21** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same critical output port loss of signal alarm	the alarm condition has not cleared. Continue to the next step.

IF...	THEN...
the Alarm List displays a minor output port loss of signal alarm	a single-sided LOS condition exists. Clear the condition by performing SE 213-1 through SE 213-3. <i>Stop! End of Task.</i>

- 22 Replace the Port Unit containing the **alarmed** port with a spare Port Unit. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75).

- 23 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port loss of signal alarm	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same critical output port loss of signal alarm	there is a possible backplane or cabling problem. Contact Lucent Technical Support. <i>Stop! End of Task.</i>
the Alarm List displays a minor output port loss of signal alarm	a single-sided LOS condition exists. Clear the condition by performing SE 213-1 through SE 213-3. <i>Stop! End of Task.</i>

- 24 From the System View, click on the SWS, then the fabric side where the output SWIP to be disassociated is located.

Result: The SWIP Display Screen appears.

- 25 Right-click on the output SWIP and select **Disassociate SWIP** from the pop-up menu.

Result: The Replacement SWIP Selection Screen appears.

26 Select a SWIP AID in the Replacement SWIP field.

IF...	THEN...
no spare SWIPs are available	click Close at the bottom of the window. Perform “Task 320: Clearing Switch Interface Point Suspect (CTNEQPT)” (9-120) procedure on suspect output SWIPs on the suspect fabric side until the procedure produces a functioning spare output SWIP. When that procedure has been successfully completed, return to the previous step. If there are no functioning spare output SWIPs after all suspect output SWIPs have been cleared, contact Lucent Technical Support. <i>Stop! End of Task.</i>
at least one spare SWIP is available	Go to “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3) to select the appropriate spare SWIP. Continue to the next step.

27 Click **Apply**, then click **Yes** to confirm the action.

Result: A Switch Interface Point Suspect alarm will occur against the original output SWIP.

The output SWIP is referred to as the **original output SWIP** and the spare output SWIP is referred to as the **output SWIP** throughout the rest of the procedure.

28 Click **Close** at the bottom of the window after the confirmation box closes.

29 Detach the optical fiber, if necessary, from the original output SWIP. Terminate the original output SWIP with a white dust cover with a yellow label.

-
- 30** Attach the optical power meter to the output SWIP at the FDP. Look up the value of the **Signal Level, Output SWIP, dBm** in “SE 315-7: Interface Formats, Optics, and Associated Power Levels Table” (9-104) that corresponds to the values of noted in Step 10 of “SE 315-4: Determining ports and SWIPs involved with double-sided output port LOS alarm” (9-86).

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, Output SWIP, dBm value	continue to the next step.
the optical power meter detects a power level greater than the Signal Level, Output SWIP, dBm value	a signal is present at the output SWIP. Return to Step 17.

-
- 31** From the System View, click on the SWS, then the fabric side where the input SWIP to be disassociated is located.

Result: The SWIP Display Screen appears.

-
- 32** Right-click on the input SWIP and select **Disassociate SWIP** from the pop-up menu.

Result: The Replacement SWIP Selection Screen appears.

33 Select a SWIP AID in the Replacement SWIP field.

IF...	THEN...
no spare SWIPs are available	click Close at the bottom of the window. Perform the “Task 320: Clearing Switch Interface Point Suspect (CTNEQPT)” (9-120) procedure on suspect input SWIPs on the suspect fabric side until the procedure produces a functioning spare input SWIP. When that procedure has been successfully completed, return to the previous step. If there are no functioning spare input SWIPs after all suspect input SWIPs have been cleared, contact Lucent Technical Support. <i>Stop! End of Task.</i>
at least one spare SWIP is available	Go to “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3) to select the appropriate spare SWIP. Continue to the next step.

34 Click **Apply**, then click **Yes** to confirm your action.

Result: A Switch Interface Point Suspect alarm occurs against the original input SWIP.

The input SWIP is referred to as the **original input SWIP** and the spare input SWIP is referred to as the **input SWIP** throughout the rest of the procedure.

35 Click **Close** at the bottom of the window after the confirmation box closes.

36 Detach the optical fiber from the original input SWIP. Terminate the original input SWIP with a white dust cover with a yellow label.

-
- 37** First clean, then connect the optical fiber to the input SWIP (spare).

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

- 38** Attach the optical power meter to the output SWIP at the FDP. Look up the value of the **Signal Level, Output SWIP, dBm** in “SE 315-7: Interface Formats, Optics, and Associated Power Levels Table” (9-104) that corresponds to the values of noted in Step 10 of “SE 315-4: Determining ports and SWIPs involved with double-sided output port LOS alarm” (9-86).

IF...	THEN...
the optical power meter detects a power level less than or equal to the Signal Level, Output SWIP, dBm value	continue to Step 24 only once. If this point is reached again, contact Lucent Technical Support. <i>Stop! End of Task.</i>
the optical power meter detects a power level greater than the Signal Level, Output SWIP, dBm value	a signal is present at the output SWIP. Return to Step 17.

SE 315-7: Interface Formats, Optics, and Associated Power Levels Table

After determining the Interface Format (IFMT) and the Interface Optics (IOPT), use the information in the table below to ascertain the minimum levels of signals expected at the end of the input SWIP cable and at the output SWIP.

Interface Format	Interface Optics (user provisioned)	Min Ingress Power for DOS (dBm)	Ingress Wavelength (nm, OA ports only)	Optical Amplifier Output Power (dBm, OA ports only)
OC-48/STM-16	SR (ITU I-16)	-10	1310	-1.0
	IR (ITU S-16.1)	-5	1310	3.25
	LR (ITU L-16.1)	-2	1310	NA
	Other	User provisioned	Implicit in OA pack type	User provisioned
OC-192/STM-64	VSR600-2R1; VSR2000-2R1	-6	1310	2.7
	VSR600-2M1	2	1310	2.7
	VSR600-2M2	-1	1550	3.25
	VSR2000-2L2	-5	1550	1.91
	SR (ITU I-64.1)	-6	1310	3.25
	IR (ITU S-64.2,3b)	-1	1550	3.25
	LR (ITU L-64.2ac)	-2	1550	NA
	Other	User provisioned	Implicit in OA pack type	User provisioned
OC-768/STM-256	LambdaXtreme	5	1310	NA
	Other	User provisioned	Implicit in OA pack type	NA
GBELX	SR	-11	1310	-1.0
	Other	User provisioned	Implicit in OA pack type	User provisioned
HSBB	IR	-5	1310	3.25
	Other	User provisioned	Implicit in OA pack type	User provisioned
Other	Other	User provisioned	Implicit in OA pack type	User provisioned

Abbreviations for IOPT and IFMT used in the table above are defined below

- GBELX—Gigabit Ethernet

- HSBB—High-Speed Broad Band
- IR—Intermediate Reach
- LSBB—Low Speed Broad Band
- LR—Long Reach
- SR—Short Reach
- VSR12—Very Short Reach with 12 dB budget

If the input port is on an Optical-Electrical-Optical (OEO) port unit, use the information in the following table to ascertain the minimum levels of signals expected at the end of the input SWIP cable and at the output SWIP.

Input Port Type	Signal Level at End of Input SWIP Cable, dBm	Signal Level, Output SWIP, dBm
OXI-10GC	-5	-9
OXI-2GC	-9	-13

SE-315-8: SWIP
Association to HVDAC
Circuit Pack Table



HVDAC Circuit Pack Number							
1	2	3	4	5	6	7	8
A7-13	A7-14	A7-15	A7-16	A8-13	A8-14	A8-15	A8-16
A7-9	A7-10	A7-11	A7-12	A8-9	A8-10	A8-11	A8-12
A7-5	A7-6	A7-7	A7-8	A8-5	A8-6	A8-7	A8-8
A7-1	A7-2	A7-3	A7-4	A8-1	A8-2	A8-3	A8-4
A5-13	A5-14	A5-15	A5-16	A6-13	A6-14	A6-15	A6-16
A5-9	A5-10	A5-11	A5-12	A6-9	A6-10	A6-11	A6-12
A5-5	A5-6	A5-7	A5-8	A6-5	A6-6	A6-7	A6-8
A5-1	A5-2	A5-3	A5-4	A6-1	A6-2	A6-3	A6-4
A3-13	A3-14	A3-15	A3-16	A4-13	A4-14	A4-15	A4-16
A3-9	A3-10	A3-11	A3-12	A4-9	A4-10	A4-11	A4-12
A3-5	A3-6	A3-7	A3-8	A4-5	A4-6	A4-7	A4-8
A3-1	A3-2	A3-3	A3-4	A4-1	A4-2	A4-3	A4-4
A1-13	A1-14	A1-15	A1-16	A2-13	A2-14	A2-15	A2-16
A1-9	A1-10	A1-11	A1-12	A2-9	A2-10	A2-11	A2-12
A1-5	A1-6	A1-7	A1-8	A2-5	A2-6	A2-7	A2-8
A1-1	A1-2	A1-3	A1-4	A2-1	A2-2	A2-3	A2-4

**SE-315-8: SWIP
Association to HVDAC
Circuit Pack Table
(continued)**

HVDAC Circuit Pack Number							
9	10	11	12	13	14	15	16
B8-16	B8-15	B8-14	B8-13	B7-16	B7-15	B7-14	B7-13
B8-12	B8-11	B8-10	B8-9	B7-12	B7-11	B7-10	B7-9
B8-8	B8-7	B8-6	B8-5	B7-8	B7-7	B7-6	B7-5
B8-4	B8-3	B8-2	B8-1	B7-4	B7-3	B7-2	B7-1
B6-16	B6-15	B6-14	B6-13	B5-16	B5-15	B5-14	B5-13
B6-12	B6-11	B6-10	B6-9	B5-12	B5-11	B5-10	B5-9
B6-8	B6-7	B6-6	B6-5	B5-8	B5-7	B5-6	B5-5
B6-4	B6-3	B6-2	B6-1	B5-4	B5-3	B5-2	B5-1
B4-16	B4-15	B4-14	B4-13	B3-16	B3-15	B3-14	B3-13
B4-12	B4-11	B4-10	B4-9	B3-12	B3-11	B3-10	B3-9
B4-8	B4-7	B4-6	B4-5	B3-8	B3-7	B3-6	B3-5
B4-4	B4-3	B4-2	B4-1	B3-4	B3-3	B3-2	B3-1
B2-16	B2-15	B2-14	B2-13	B1-16	B1-15	B1-14	B1-13
B2-12	B2-11	B2-10	B2-9	B1-12	B1-11	B1-10	B1-9
B2-8	B2-7	B2-6	B2-5	B1-8	B1-7	B1-6	B1-5
B2-4	B2-3	B2-2	B2-1	B1-4	B1-3	B1-2	B1-1

Task 316: Clearing Output Port Fail to Switch (FAILTOSW)

Purpose Use this procedure to clear an output port selector protection switch failure condition. This alarm message indicates that the output port selector failed to switch as requested by a forced protection switch command. This condition suggests a possible malfunction in the fabric selection mechanism on the Port Unit (or Optical Cross-Connect Interface circuit pack).

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M4 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

Task Complete the following steps to clear an output port selector protection switch failure condition.

- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm**

List from the Main Menu bar.

Result: This lists all the LambdaRouter TM AOS current alarms. The AID provides the shelf, slot, and port location of the failure.

2 Select **Fault>Protection Switch** on the System View Main Menu bar.

Result: The Switch Protection Screen appears.

3 Select the faulty port.

Result: The details for the selected OCH port appear on the screen.

4 Verify the Active Switch Port field.

IF...	THEN...
the Active Switch Port is 0	select Forced Switch to Side 1 for the Switch Type field.
the Active Switch Port is 1	select Forced Switch to Side 0 for the Switch Type field.

5 Click **Apply**, then click **Yes** to confirm the action.

6 Re-verify the Active Switch Input field.

IF...	THEN...
the Active Switch Input did not change from Step 4	the Port Unit may be faulty. Replace the Port Unit. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75). Continue to Step 9.
the Active Switch Input did change from Step 4	click Clear to release the protection switch. Return to Step 4. If Step 4 executes properly two times consecutively, then the switch is no longer malfunctioning.

7 Click **Clear** to release the forced switch.

8 Click **Close** at the bottom of the window.

9 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same output port selector protection switch failure alarm message	the alarm condition has cleared.
the same output port selector protection switch failure alarm message is displayed	contact Lucent Technical Support.

END OF STEPS



Task 317: Clearing RIP-Autolock (CONTEQPT-RIP)

Purpose Use this procedure to address an RIP-autolock condition. This alarm message indicates that system has reset the RIP circuit pack three times without success in an attempt to communicate with it. Multiple occurrences of this event may indicate a problem with the RIP circuit pack.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter TM AOS and an electrostatic discharge (ESD) strap.
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local LambdaRouter TM AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter TM AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the LambdaRouter TM AOS with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter TM AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:



CAUTION

Replacing circuit packs may be service-affecting if they are carrying traffic. If possible, reconfigure port traffic to spare ports. Circuit pack replacement must be scheduled and affected customers should be notified of service interruption.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear an RIP-autolock condition.

- 1 Determine the Access Identifier (AID) of the RIP-autolock alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: This lists all the LambdaRouter™ AOS current alarms. The AID provides the shelf and slot location of the failure.

- 2 Reset the alarmed RIP circuit pack.

Reference: “Task 521: Resetting a System, Shelf, or Circuit Pack” (11-99)

- 3 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same RIP-autolock alarm message	the alarm condition has cleared. <i>Stop! End of task.</i>
the Alarm List displays the same RIP-autolock alarm message	replace the RIP circuit pack with an appropriate spare. Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

-
- 4 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same RIP-autolock alarm message	the alarm condition has cleared.
the Alarm List displays the same RIP-autolock alarm message	contact Lucent Technical support.

END OF STEPS

Task 318: Clearing RC Auto Sideswitch (SW-RC)

Purpose Use this procedure to address an RC autonomous side-switch condition. This transient event message indicates that the RC circuit pack download attempt has failed three times or the RIP circuit pack has been reset without success in an attempt to communicate with the RC circuit pack. Multiple occurrences of this event may indicate a problem with the RC circuit pack.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ AOS and an electrostatic discharge (ESD) strap.
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local LambdaRouter™ AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the LambdaRouter™ AOS with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:



CAUTION

Replacing circuit packs may be service-affecting if they are carrying traffic. If possible, reconfigure port traffic to spare ports. Circuit pack replacement must be scheduled and affected customers should be notified of service interruption.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task

Complete the following steps to address an RC autonomous side-switch condition.

- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Transient Events>Other** from the Main Menu bar.

Result: The current transient events are listed. The AID provides the shelf and slot location of the failure.

- 2 Verify that the RC circuit pack is in its slot.

IF...	THEN...
the RC circuit pack is in its slot	continue to the next step.
the RC circuit pack is not in its slot	insert an appropriate spare. Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

3 Verify that the cables are properly connected.

IF...	THEN...
the cables are properly connected	<i>Stop! End of task.</i>
cables are not properly connected	correct the connection. <i>Stop! End of task.</i>

END OF STEPS

Task 319: Clearing SWIP Not Assigned (SWMTXMOD_UAS)

Purpose Use this procedure to clear a SWIP not assigned condition. This alarm message indicates that SWIP assignments are missing for ports on the circuit pack.

- Before you begin** Before beginning this task:
- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
 - Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
 - Read and follow all safety instructions in Chapter 1, “Safety”.
 - Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
 - Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
 - Log in to the network element with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.



WARNING

Unterminated optical connectors may emit invisible laser radiation. Eye damage may occur if beam is viewed directly or

with improper optical instruments. Avoid direct exposure to beam.

- Related information** For related information, see
- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear the SWIP not assigned condition.

- 1 Determine the Access Identifier (AID) of the switch interface point (SWIP) suspect alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: This lists all the LambdaRouter TM AOS current alarms. The AID provides the shelf, slot and port location of the failure.

2

IF...	THEN...
the port unit with the alarmed port is equipped in its shelf	remove the port unit. Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)
the port unit with the alarmed port is not equipped in its shelf	continue to the next step.

- 3 Delete the port unit with the alarmed port.

Reference: “Task 503: Deleting a Circuit Pack, Shelf, or Maintenance Group” (11-22)

-
- 4 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same SWIP not assigned alarm message	the alarm condition has cleared. If desired, the port unit may be inserted into a valid slot that has existing SWIP assignments. Reference: <i>LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 User Operations Guide</i> , Task 305: Adding or Pre-Provisioning a Port Unit Circuit Pack (12-27)
the same SWIP not assigned alarm message is displayed	contact Lucent Technical Support.

END OF STEPS



Task 320: Clearing Switch Interface Point Suspect (CTNEQPT)

Purpose Use this procedure to clear a switch interface point suspect condition. This alarm message indicates that a Switch Interface Point (SWIP) that was previously associated with a port has been dissociated. The SWIP is now suspected of being faulty. Suspect SWIPs are those with Primary State of OOS-MA (Out Of Service - Management) and a Secondary State of MT (Maintenance).

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™, an electrostatic discharge (ESD) strap, an optical power meter with LC connectors, such as the HP8140A equipped with HP81401A (ITE# 6550), and an optical power source, such as the TEK model TOP160.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 and P3 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.



WARNING

Unterminated optical connectors may emit invisible laser radiation. Eye damage may occur if beam is viewed directly or with improper optical instruments. Avoid direct exposure to beam.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 4, “Alarm Messages and Trouble-Clearing Tasks Background”

Task

Complete the following steps to clear a switch interface point suspect condition.

-
- 1 Determine the Access Identifier (AID) of the switch interface point (SWIP) suspect alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: This lists all the LambdaRouter™ AOS current alarms. The AID provides the shelf, direction, and SWIP number of the failure.

-
- 2 Select **View>View Equipment Details** on the System View Main Menu bar.

Result: The View Equipment Details Screen appears.

-
- 3 Select the Switch Shelf (SWS) on which the suspect SWIP is located.

Result: The View Equipment Details Screen appears showing the details of the Switch Shelf

- 4 Highlight the suspect SWIP block and click **Select**.

Result: The SWIP Block Details for: SWIP XX Screen appears.

- 5 Determine the **Primary State** and **Secondary State** of the suspect SWIP.

IF...	THEN...
the Primary State is OOS-MA and the Secondary State is MT	continue to the next step.
the Primary State is not OOS-MA or the Secondary State is not MT	return to Step 4 only once. Be sure to select the correct alarmed suspect SWIP. If Step 4 has been repeated and the Primary State is still not OOS-MA or the Secondary State is still not MT, then contact Lucent Technical Support. <i>Stop! End of Task.</i>

- 6 Click **Close** at the bottom of the window.
-

- 7 At the Fiber Distribution Panel (FDP) of the Switch Shelf (SWS), verify that the alarmed SWIP has been marked as a suspect SWIP (a white LC dust cover with a yellow label is in place).

IF...	THEN...
a white LC dust cover with a yellow label is attached at the SWIP	the correct plug is in place. Continue to Step 17.

IF...	THEN...
a plain white LC dust cover (no yellow label) is attached at the SWIP or nothing is attached at the SWIP or the interface cap of the two-piece LC adapter is not attached at the SWIP	an incorrect SWIP could have been identified. Continue to the next step.
an optical fiber is attached at the SWIP	determine the SWIP associated with the optical fiber. Continue to Step 10.

-
- 8** Re-determine the Access Identifier (AID) of the switch interface port suspect alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.
-

- 9** Re-verify at the Fiber Distribution Panel of the SWS that the alarmed SWIP has been marked as a suspect SWIP (a white LC dust cover with a yellow label is in place).

IF...	THEN...
a white LC dust cover with a yellow label is attached at the SWIP	the correct plug is in place. Continue to Step 17.
a plain white LC dust cover (no yellow label) is attached at the SWIP	attach a yellow label to the white dust cover. Continue to Step 17.
nothing is attached at the SWIP	attach a white LC dust cover with a yellow label at the SWIP. Continue to Step 17.
the interface cap of the two-piece LC adapter is not attached at the SWIP	attach a cap to the LC adapter and then attach a white LC dust cover with a yellow label at the SWIP. Continue to Step 17.
an optical fiber is attached at the SWIP	determine the SWIP associated with the optical fiber. Continue to the next step.

10

IF...	THEN...
the fiber belongs to a group of eight fibers, four blue and four white, that has pairs of green, orange, and blue color bands	go to “SE 320-1: Tracing an SI-T cable” (9-126).
the fiber belongs to a group of thirty-two multi-colored fibers that has short blue and white sheaths	go to “SE 320-2: Tracing an SI-S cable” (9-127)

11 Select **View>View Equipment Details** on the System View Main Menu bar.

Result: The View Equipment Details Screen appears.

12 Select the OCH port determined by Step 10.

Result: The View Och Port Details Screen appears.

13 Determine the value of the appropriate SWIP association for the appropriate direction of the port (determined by Step 10).

IF...	THEN...
the port is an input port and the fiber is connected to the side 0 backplane connector	note the value of the Input SWIP Association - Fabric 0 field.
the port is an input port and the fiber is connected to the side 1 backplane connector	note the value of the Input SWIP Association - Fabric 1 field.
the port is an output port and the fiber is connected to the side 0 backplane connector	note the value of the Output SWIP Association - Fabric 0 field.
the port is an output port and the fiber is connected to the side 1 backplane connector	note the value of the Output SWIP Association - Fabric 1 field.

14 Click **Close** at the bottom of the window.

15 At the FDP, detach the fiber from the suspect SWIP and attach a white LC dust cover with a yellow label at the suspect SWIP.

16 Attach the fiber to the associated SWIP determined in Step 13. If there is no SWIP associated with the port, attach a dust cap to the end of the fiber and return it to the organizer bay.

17 Determine the AID for a second SWIP that is available for testing by selecting **View>Equipment Details** from the OCI System View Main Menu bar.

Result: The View Equipment Details Screen appears.

18

IF...	THEN...
the suspect SWIP is an ingress SWIP	go to “SE 320-4: Testing a suspect ingress SWIP” (9-129).
the suspect SWIP is an egress SWIP	go to “SE 320-5: Testing a suspect egress SWIP” (9-137).

SE 320-1: Tracing an SI-T cable

Use the following steps to trace an SI-T cable from the FDP to the associated port.

- 1 Observe the fiber jack color to determine input port or output port. White is input and blue is output.
- 2 Observe the color band on the yellow sheath at the SWIP connector.
- 3 Trace the fiber as far as the appropriate fiber organizer side and look for the pertinent cable label for the group of fibers of which the fiber being traced is a member.

The SI-T cable label is of the following format for the LambdaRouter™ AOS 256: {0,1}-{A,B}-{1-32}. Where {0,1} refers to the switch shelf number, {A,B} refers to the organizer side, and {1-32} provides uniqueness. This scheme allows for 64 uniquely identified cables on each switch shelf. Note that the LambdaRouter™ AOS 128 system has only one switch shelf, so the cable label format would be 0-{A,B}-{1-32}.
- 4 Locate the same cable label at the optical interface shelf by inspecting all yellow cable labels at each OIS-T until a match is found.
- 5 Make note of the slot number, port, fabric side, and port direction. The fabric side and slot number are determined by the label on the backplane where the SI-T cable connects. The port number is derived from the color band at the FDP connector. The port direction is indicated by the fiber jacket color at the switch shelf, that is, white is input and blue is output.

END OF STEPS

SE 320-2: Tracing an SI-S cable

Use the following steps to trace an SI-S cable from the FDP to the associated port.

-
- 1 Observe the short sheath at the SWIP connector to determine input port (white) or output port (blue).
-

- 2 Observe the fiber jacket color.

Reference: Chapter 4, “Alarm Messages and Trouble-Clearing Tasks Background” Task 215: Clearing Switch Interface Point Suspect (CTNEQPT) for background information.

- 3 Trace the fiber as far as the appropriate fiber organizer side and look for the pertinent cable label for the group of fibers of which the fiber being traced is a member.

The SI-S cable label is of the following format for the LambdaRouter™ AOS 256: {0,1}-{A,B}-{1-8}. Where {0,1} refers to the switch shelf number, {A,B} refers to the organizer side, and {1-8} provides uniqueness. This scheme allows for 16 uniquely identified cables on each switch shelf. Note that the LambdaRouter™ AOS 128 has only one switch shelf, so the cable label format would be 0-{A,B}-{1-8}.

- 4 Locate the same cable label at the optical interface shelf by inspecting all yellow cable labels at each OIS-S until a match is found.
-

- 5 Make note of the slot number, port, fabric side, and port direction. The slot number and port number are determined by the label on the backplane where the SI-S cable connects that matches the fiber jacket observed at the FDP connector. The port direction is indicated by the Sheath color at the switch shelf, that is, white is input and blue is output.

END OF STEPS



SE 320-3: Changing the secondary state of a SWIP

Complete the following steps to change the secondary state of a SWIP.

-
- 1 At the OCI System View, select **Configuration>Provision** from the Main Menu bar.

Result: The Provision Parameters for Equipment Screen appears.

-
- 2 From the Equipment Selection list on the left side of the screen, enter an AID for the SWIP block, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment.

-
- 3 Click **Provision**.

Result: The Provision SWIP Screen appears.

-
- 4 Select the SWIP AID from the SWIP Selection field drop-down list.

Result: The screen is populated with information about the selected SWIP.

-
- 5 Click on the Secondary State drop-down list and select UEQ.

-
- 6 Click **Apply**.

-
- 7 Click **Yes**.

Result: A successful completion message appears.

END OF STEPS



SE 320-4: Testing a suspect ingress SWIP

Complete the following steps to test a suspect ingress SWIP, which will be referred to as SWIP 0.

- 1 Select an idle input port that will be assigned and connected to SWIP 0. This port will be referred to as PORT 1 throughout the rest of this procedure.

IF...	THEN...
an external an optical power meter will be used for testing SWIP 0	select a transparent input port to be PORT 1.
an OEO port is to provide the signal monitor for testing SWIP 0	select an OEO input port to be PORT 1.

- 2 Change the state of PORT 1 to OOS-MA.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

- 3 Make note of the SWIP currently associated with PORT 1 that belongs to the same SWMG as SWIP 0. This SWIP will be referred to as SWIP 1.

- 4 Disconnect the fiber associated with PORT 1 from SWIP 1.

- 5 Connect the fiber associated with PORT 1 to SWIP 0.

- 6 Change the state of SWIP 0 to OOS-MA, UEQ.

Reference: “SE 320-3: Changing the secondary state of a SWIP” (9-128)

Important! This clears the alarm associated with SWIP 0, but this is not the end of this task.

7 Assign SWIP 0 to PORT 1.

Reference: “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3).

The state of SWIP 0 is now IS-NR and the state of SWIP 1 is OOS-MA, MT.

8 Change the state of SWIP 1 to OOS-MA, UEQ.

Result: This clears the alarm associated with SWIP 1.

Reference: “SE 320-3: Changing the secondary state of a SWIP” (9-128)

9 Select an idle output port to be used for testing ingress SWIP 0. This port must already have an IS-NR SWIP that belongs to the same SWMG as SWIP 0. This port is referred to in the rest of this procedure as PORT 2. The SWIP assigned to PORT 2 will be referred to as SWIP 2.

IF...	THEN...
an external optical power source will be used for testing SWIP 0	select a transparent output port to be PORT 2.
an OEO port is to provide the signal monitor for testing SWIP 0	select an OEO output port to be PORT 2.

10 Change the state of output PORT 2 to OOS-MA.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

11 Establish a Test Access (TA) cross-connection between input PORT 1 and output PORT 2. These ports are currently associated with SWIP 0 and SWIP 2, respectively.

When establishing this TA session be sure to select MONE for the mode, PORT 1 for the input port, PORT 2 for the output port, 0 or 1 for the switch fabric side (depending on which SWMG SWIP 0 and

SWIP 2 belong) and signal injection if PORT 1 is an OEO port. Do not select the J0 insertion option.

Reference: “Task 507: Establishing a Test Access Session” (11-38)

12

IF...	THEN...
PORT 1 is a transparent port	continue to the next step.
PORT 1 is a OEO port	continue to Step 19.

13 Retrieve the power levels for both PORT 1 and PORT 2. Select **View>Equipment Details** from the OCI System View Main Menu bar

Result: The View Equipment Details Screen appears.

14 Select PORT 1 from the equipment list or enter the AID and click **Select**.

Result: The View Och Port Details Screen appears populated with data for the input port. To view output port, PORT 2, details, click on the Output Port tab.

15

WHEN...	THEN...
PORT 1 is selected	note the value of the input power monitor value.
PORT 2 is selected	note the value of the output power monitor that is on the same side as the SWMG being used for testing.

16 Compare the power levels of PORT 1 and PORT 2.

IF...	THEN...
the loss between PORT 1 and PORT 2 is less than 10 dB	the cross-connection is good. This means that SWIP 0 is also good. Continue to Step 20.

IF...	THEN...
the loss between PORT 1 and PORT 2 is greater than 10 dB	the cross-connection appears to be bad. This means that SWIP 0 may also be bad. Continue to Step 27.

- 17 Retrieve the power level at output PORT 2. Select **View>Equipment Details** on the OCI System View Main Menu bar.

Result: The View Equipment Details Screen appears.

- 18 Select PORT 2 from the equipment list or enter the AID and click **Select**.

Result: The View Port Details Screen appears populated with data for the output port.

- 19 Note the value of the output power monitor that is on the same side as the SWMG being used for testing.

IF...	THEN...
PORT 1 is an OCH2GC port and the PORT 2 power monitor reading is greater than -14 dBm	the cross-connection is good, which means that SWIP 0 is also good. Continue to the next step.
PORT 1 is an OCH2GC port and the PORT 2 power monitor reading is less than -14 dBm	the cross-connection appears to be bad. This means that SWIP 0 may also be bad. Continue to Step 27.
PORT 1 is an OCH10GC port and the PORT 2 power monitor reading is greater than -10 dBm	the cross-connection is good, which means that SWIP 0 is also good. Continue to the next step.
PORT 1 is an OCH10GC port and the PORT 2 power monitor reading is less than -10 dBm	the cross-connection appears to be bad, which means that SWIP 0 may also be bad. Continue to Step 27.

- 20 Disconnect the fiber associated with PORT 1 from ingress SWIP 0 and then reattach this fiber to SWIP 1.

21 Assign PORT 1 to SWIP 1.

Result: The state of SWIP 1 changes to IS-NR, the state of SWIP 0 is restored to OOS-MA, MT, and a suspect SWIP alarm appears for SWIP 0.

Reference: “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3)

22 Change the state of SWIP 0 to OOS-MA, UEQ.

Result: The SWIP 0 alarm clears.

Reference: “SE 320-3: Changing the secondary state of a SWIP” (9-128)

23 Change the state of PORT 1 to IS-NR.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

24 Change the state of PORT 2 to IS-NR.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

25 Delete the TA cross-connection.

Reference: “Task 505: Deleting a Test Access Session” (11-32)

26 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same switch interface point suspect alarm message	the alarm condition has cleared. <i>Stop! End of Task.</i>

IF...	THEN...
the Alarm List displays the same switch interface point suspect alarm message	contact Lucent Technical Support. <i>Stop! End of task.</i>

- 27 Disconnect the fiber associated with PORT 1 from ingress SWIP 0 and then reattach this fiber to SWIP 1.

- 28 Disconnect the fiber associated with PORT 2 from SWIP 2.

- 29 Connect an optical power source to the suspect ingress SWIP 0 and an optical power meter to egress SWIP 2.

- 30 Turn on the optical power source and the optical power meter.

IF...	THEN...
the detected value of the optical power loss is less than or equal to 4 dB	the suspect SWIP 0 is functioning . Turn off the optical power source and disconnect it from the input SWIP and turn off the optical power meter and disconnect it from the output SWIP. Terminate the ingress SWIP with a white LC dust cover.
the detected value of the optical power loss is greater than 4 dB	the suspect SWIP 0 is faulty . Turn off the optical power source and disconnect it from the input SWIP and turn off the optical power meter and disconnect it from the output SWIP. Remove the interface cap from the two-piece LC adapter at the suspect egress SWIP. This prevents a fiber from being mistakenly connected to the faulty SWIP.

- 31 Reconnect the fiber associated with output PORT 2 to SWIP 2.

32 Assign PORT 1 to SWIP 1.

Result: The state of SWIP 1 changes to IS-NR, SWIP 0 is restored to a state of OOS-MA, and a suspect SWIP alarm appears for SWIP 0.

Reference: “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3)

33

IF...	THEN...
Step 30 testing indicated the SWIP 0 as functioning	change the state of SWIP 0 to OOS-MA, UEQ. Result: The SWIP 0 alarm clears. Reference: “SE 320-3: Changing the secondary state of a SWIP” (9-128)
Step 30 testing indicated the SWIP 0 as faulty	change the state of SWIP 0 to OOS-MA, FLT. Result: The SWIP 0 alarm clears. Reference: “SE 320-3: Changing the secondary state of a SWIP” (9-128)

34 Change the state of input PORT 1 to IS-NR.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

35 Change the state of output PORT 2 to IS-NR.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

36 Delete the TA cross-connection.

Reference: “Task 505: Deleting a Test Access Session” (11-32)

-
- 37** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same switch interface point suspect alarm message	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same switch interface point suspect alarm message	contact Lucent Technical Support. <i>Stop! End of Task.</i>

END OF STEPS

SE 320-5: Testing a suspect egress SWIP

Complete the following steps to test a suspect egress SWIP, which will be referred to as SWIP 0.

- 1 Select an idle output port that will be assigned and connected to SWIP 0. This port will be referred to as PORT 1 throughout the rest of this procedure.

IF...	THEN...
an external an optical power meter will be used for testing SWIP 0	select a transparent output port to be PORT 1.
an OEO port is to provide the signal monitor for testing SWIP 0	select an OEO output port to be PORT 1.

- 2 Change the state of PORT 1 to OOS-MA.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

- 3 Make note of the SWIP currently associated with PORT 1 that belongs to the same SWMG as SWIP 0. This SWIP will be referred to as SWIP 1.

- 4 Disconnect the fiber associated with PORT 1 from SWIP 1.

- 5 Connect the fiber associated with PORT 1 to SWIP 0.

- 6 Change the state of SWIP 0 to OOS-MA, UEQ.

Reference: “SE 320-3: Changing the secondary state of a SWIP” (9-128)

Important! This clears the alarm associated with SWIP 0, but this is not the end of this task.

7 Assign SWIP 0 to PORT 1.

Result: The state of SWIP 0 is now IS-NR and the state of SWIP 1 is OOS-MA, MT.

Reference: “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3).

8 Change the state of SWIP 1 to OOS-MA, UEQ.

Result: This clears the alarm associated with SWIP 1.

Reference: “SE 320-3: Changing the secondary state of a SWIP” (9-128)

9 Select an idle output port to be used for testing ingress SWIP 0. This port must already have an IS-NR SWIP that belongs to the same SWMG as SWIP 0. This port is referred to in the rest of this procedure as PORT 2. The SWIP assigned to PORT 2 will be referred to as SWIP 2.

IF...	THEN...
an external optical power source will be used for testing SWIP 0	select a transparent input port to be PORT 2.
an OEO port is to provide the signal monitor for testing SWIP 0	select an OEO input port to be PORT 2.

10 Change the state of PORT 2 to OOS-MA.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

11 Establish a Test Access (TA) cross-connection between input PORT 2 and output PORT 1. These ports are currently associated with SWIP 2 and SWIP 0, respectively.

When establishing this TA session be sure to select MONE for the mode, PORT 2 for the input port, PORT 1 for the output port, 0 or 1 for the switch fabric side (depending on which SWMG SWIP 0 and

SWIP 2 belong) and signal injection if PORT 2 is an OEO port. Do not select the J0 insertion option.

Reference: “Task 507: Establishing a Test Access Session” (11-38)

12

IF...	THEN...
PORT 1 is a transparent port	continue to the next step.
PORT 1 is a OEO port	continue to Step 19.

13 Retrieve the power levels for both PORT 1 and PORT 2. Select **View>Equipment Details** from the OCI System View Main Menu bar

Result: The View Equipment Details Screen appears.

14 Select PORT 2 from the equipment list or enter the AID and click **Select**.

Result: The View Och Port Details Screen appears populated with data for the input port. To view output port, PORT 1, details, click on the Output Port tab.

15

WHEN...	THEN...
PORT 2 is selected	note the value of the input power monitor value.
PORT 1 is selected	note the value of the output power monitor that is on the same side as the SWMG being used for testing.

16 Compare the power levels of PORT 1 and PORT 2.

IF...	THEN...
the loss between PORT 1 and PORT 2 is less than 10 dB	the cross-connection is good. This means that SWIP 0 is also good. Continue to Step 20.

IF...	THEN...
the loss between PORT 1 and PORT 2 is greater than 10 dB	the cross-connection appears to be bad. This means that SWIP 0 may also be bad. Continue to Step 27.

- 17 Retrieve the power level at output PORT 2. Select **View>Equipment Details** on the OCI System View Main Menu bar.

Result: The View Equipment Details Screen appears.

- 18 Select PORT 2 from the equipment list or enter the AID and click **Select**.

Result: The View OCH Port Details Screen appears populated with data for the output port.

- 19 Note the value of the output power monitor that is on the same side as the SWMG being used for testing.

IF...	THEN...
PORT 2 is an OCH2GC port and the PORT 1 power monitor reading is greater than -14 dBm	the cross-connection is good, which means that SWIP 0 is also good. Continue to the next step.
PORT 2 is an OCH2GC port and the PORT 1 power monitor reading is less than -14 dBm	the cross-connection appears to be bad. This means that SWIP 0 may also be bad. Continue to Step 27.
PORT 2 is an OCH10GC port and the PORT 1 power monitor reading is greater than -10 dBm	the cross-connection is good, which means that SWIP 0 is also good. Continue to the next step.
PORT 2 is an OCH10GC port and the PORT 1 power monitor reading is less than -10 dBm	the cross-connection appears to be bad, which means that SWIP 0 may also be bad. Continue to Step 27.

- 20 Disconnect the fiber associated with PORT 1 from ingress SWIP 0 and then reattach this fiber to SWIP 1.

21 Assign PORT 1 to SWIP 1.

Result: The state of SWIP 1 changes to IS-NR, the state of SWIP 0 is restored to OOS-MA, MT, and a suspect SWIP alarm appears for SWIP 0.

Reference: “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3)

22 Change the state of SWIP 0 to OOS-MA, UEQ.

Result: The SWIP 0 alarm clears.

Reference: “SE 320-3: Changing the secondary state of a SWIP” (9-128)

23 Change the state of PORT 1 to IS-NR.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

24 Change the state of PORT 2 to IS-NR.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

25 Delete the TA cross-connection.

Reference: “Task 505: Deleting a Test Access Session” (11-32)

26 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same switch interface point suspect alarm message	the alarm condition has cleared. <i>Stop! End of Task.</i>

IF...	THEN...
the Alarm List displays the same switch interface point suspect alarm message	contact Lucent Technical Support. <i>Stop! End of task.</i>

- 27 Disconnect the fiber associated with PORT 1 from egress SWIP 0 and then reattach this fiber to SWIP 1.

- 28 Disconnect the fiber associated with PORT 2 from SWIP 2.

- 29 Connect an optical power source to the ingress SWIP 2 and an optical power meter to the suspect egress SWIP 0.

- 30 Turn on the optical power source and the optical power meter.

IF...	THEN...
the detected value of the optical power loss is less than or equal to 4 dB	the suspect SWIP 0 is functioning . Turn off the optical power source and disconnect it from the input SWIP and turn off the optical power meter and disconnect it from the output SWIP. Terminate the ingress SWIP with a white LC dust cover.
the detected value of the optical power loss is greater than 4 dB	the suspect SWIP 0 is faulty . Turn off the optical power source and disconnect it from the input SWIP and turn off the optical power meter and disconnect it from the output SWIP. Remove the interface cap from the two-piece LC adapter at the suspect egress SWIP. This prevents a fiber from being mistakenly connected to the faulty SWIP.

- 31 Reconnect the fiber associated with output PORT 2 to SWIP 2.

32 Assign PORT 1 to SWIP 1.

Result: The state of SWIP 1 changes to IS-NR, SWIP 0 is restored to a state of OOS-MA, and a suspect SWIP alarm appears for SWIP 0.

Reference: “Task 500: Assigning and Cabling a Spare SWIP to a Port” (11-3)

33

IF...	THEN...
Step 30 testing indicated the SWIP 0 as functioning	change the state of SWIP 0 to OOS-MA, UEQ. Result: The SWIP 0 alarm clears. Reference: “SE 320-3: Changing the secondary state of a SWIP” (9-128)
Step 30 testing indicated the SWIP 0 as faulty	change the state of SWIP 0 to OOS-MA, FLT. Result: The SWIP 0 alarm clears. Reference: “SE 320-3: Changing the secondary state of a SWIP” (9-128)

34 Change the state of input PORT 1 to IS-NR.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

35 Change the state of input PORT 2 to IS-NR.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-65)

36 Delete the TA cross-connection.

Reference: “Task 505: Deleting a Test Access Session” (11-32)

-
- 37** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same switch interface point suspect alarm message	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same switch interface point suspect alarm message	contact Lucent Technical Support. <i>Stop! End of Task.</i>

E N D O F S T E P S

Task 321: Clearing Switch Shelf Extraction (IMPROPRMVL)

Purpose Use this procedure to clear a switch shelf extraction condition.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™, an electrostatic discharge (ESD) strap, and a new 25 pin d-sub SNIP cable.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear a switch shelf extraction condition.

- 1 Determine the Access Identifier (AID) of the switch interface point (SWIP) suspect alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: This lists all the LambdaRouter TM AOS current alarms. The AID provides the shelf location of the failure.

- 2 Verify whether the alarmed Switch Shelf (SWS) is actually present within its appropriate bay.

IF...	THEN...
the SWS is not present in the bay	contact Lucent Technical Support. <i>Stop! End of Task.</i>
the SWS is present in the bay	the Serial Number Identification Port (SNIP) cable may be disconnected or damaged. Continue to the next step.

- 3 Inspect the SNIP cable at the SWS backplane.

IF...	THEN...
the cable is missing	attach a new 25 pin d-sub cable at the SWS and the appropriate High-Voltage Shelf connector via the thumbscrews on the connector shells at the end of the cable. Continue to the next step.
the cable is detached	reattach the 25 pin d-sub cable at the SWS and the appropriate High-Voltage Shelf connector via the thumbscrews on the connector shells at the end of the cable. Continue to the next step.
the cable appears damaged	replace it with a new 25 pin d-sub cable at the SWS and the appropriate High-Voltage Shelf connector via the thumbscrews on the connector shells at the end of the cable. Continue to the next step.

-
- 4 Wait one minute and then check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same switch shelf extraction alarm message	the alarm condition has cleared. <i>Stop! End of Task.</i>
the Alarm List displays the same switch shelf extraction alarm message	the alarm condition has not cleared. Continue to the next step.

-
- 5 Detach the SNIP cable and attach a new 25 pin d-sub SNIP cable at the SWS and the appropriate High-Voltage Shelf connector via the thumbscrews on the connector shells at the end of the cable.

-
- 6 Wait one minute and then check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same switch shelf extraction alarm message	the alarm condition has cleared.
the Alarm List displays the same switch shelf extraction alarm message	the alarm condition has not cleared. Contact Lucent Technical Support.

END OF STEPS

Task 322: Clearing Time of Day Clock Battery Failure (RTCLK)

Purpose Use this procedure to clear a time of day clock failure condition. This alarm message indicates that the battery on the RC circuit pack has failed.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™, an electrostatic discharge (ESD) strap, an optical power meter with LC connectors, such as the HP8140A equipped with HP81401A (ITE# 6550), and an optical power source, such as the TEK model TOP160.
- Obtain a new RC circuit pack battery.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1, P3, and S2 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.



WARNING

Unterminated optical connectors may emit invisible laser radiation. Eye damage may occur if beam is viewed directly or with improper optical instruments. Avoid direct exposure to beam.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43)

Task

Complete the following steps to clear a time of day clock battery failure condition.

- 1 Determine the Access Identifier (AID) of the alarm and the alarm severity by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf and slot location of the failure.

- 2 Determine whether the RC circuit pack is active or standby.

IF...	THEN...
the RC circuit pack is active	perform a manual protection switch. Reference: “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-43)

IF...	THEN...
the RC circuit pack is standby	continue to the next step.

.....

3 Remove the RC circuit pack and replace it with a spare pack.

.....

4 Remove the battery from the RC circuit pack.

Reference: “SE 317-1 RC Circuit Pack Figure” (10-110)

.....

5 Insert the new battery.

.....

6 If no alarms are issued against the currently active RC circuit pack, then leave it as active and the RC circuit pack with the new battery becomes the standby circuit pack.

.....

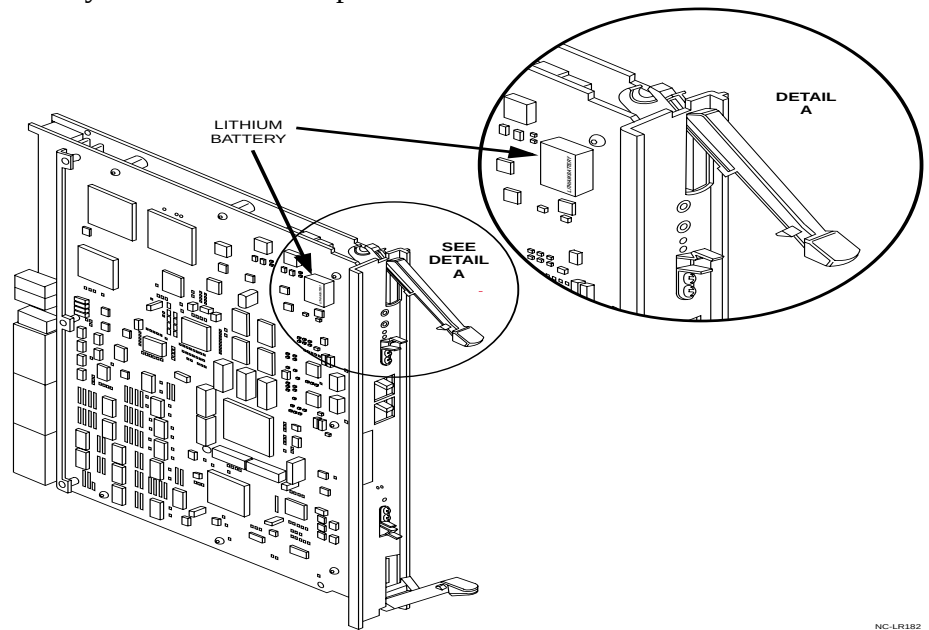
END OF STEPS

.....



**SE 322-1 RC circuit pack
figure**

The following figure shows the location of the time of day clock battery on the RC circuit pack.



NC-LR182



10 Optical Channel Alarm Messages and Trouble-Clearing Tasks

Overview

Purpose This chapter includes trouble-clearing tasks for optical alarm messages.

Contents This chapter contains the following sections:

Task 400: Clearing Incoming AIS-L/AIS-MS (AIS-L)	10 - 2
Task 401: Clearing Incoming Loss of Frame (LOF)	10 - 3
Task 402: Clearing Incoming Loss of Signal (MLOS)	10 - 4
Task 403: Clearing Incoming Loss of Signal (Optical) (LOS)	10 - 10
Task 404: Clearing Incoming Signal Degrade B2 (BER)	10 - 17
Task 405: Clearing Incoming Signal Fail B2 (EBER)	10 - 18
Task 406: Clearing Input Optical Amplifier Failure (MOD)	10 - 19
Task 407: Clearing Optical Amplifier On Failure (MOD-ERR)	10 - 22
Task 408: Clearing LOS and Optical Amplifier On Failure (LOS-MOD-ERR)	10 - 24



Task 400: Clearing Incoming AIS-L/AIS-MS (AIS-L)

Purpose Use this procedure to clear an incoming loss of Alarm Indication Signal-Line (AIS-L)/Alarm Indication Signal-MS (AIS-MS) condition. This alarm message indicates that the incoming signal has valid SONET/SDH Section/Regenerator Section overhead and otherwise is composed of all ones.

Before you begin Before beginning this task:

- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear an incoming loss of AIS-L condition.

-
- 1 The source of the alarm condition is not the LambdaRouter™ AOS.

END OF STEPS



Task 401: Clearing Incoming Loss of Frame (LOF)

Purpose Use this procedure to clear an incoming loss of frame condition. This alarm message indicates that consecutive errored framing patterns have been detected.

If the level of this alarm is Minor, it is an Idle Port alarm and requires no immediate action.

Before you begin Before beginning this task:

- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear an incoming loss of frame condition.

-
- 1 The source of the alarm condition is not the LambdaRouter™ AOS.

END OF STEPS



Task 402: Clearing Incoming Loss of Signal (MLOS)

Purpose Use this procedure to clear an incoming loss of signal (LOS) condition on a cross-connected OXI-10GC or OXI-2GC input port. This alarm message indicates that an all-zeros pattern was detected. An all-zeros pattern corresponds to no light pulses for OC-N/STM-N optical interfaces. This LOS condition is detected by the port SONET Framer.

If the level of this alarm is Minor, it is an Idle Port alarm and requires no immediate action.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ AOS, an electrostatic discharge (ESD) strap, and an optical power meter with LC connectors, such as the HP8140A equipped with HP81401A (ITE# 6550).
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the LambdaRouter™ AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the LambdaRouter™ AOS with a Privilege Code of M1 and P1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precautions:



WARNING

Unterminated optical connectors may emit invisible laser radiation. Eye damage may occur if beam is viewed directly or

with improper optical instruments. Avoid direct exposure to beam.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

- Related information** For related information, see
- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear an incoming loss of signal condition.

-
- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

-
- 2 Check the fiber connection at the port reported in the alarm message. Ensure that the connection is secure and not visibly damaged.

-
- 3 At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same LOS alarm message	the condition has cleared. <i>Stop! End of Task.</i>
the Alarm List still displays the same LOS alarm message	the alarm condition has not cleared. Continue to the next step.

-
- 4 At the OCI System View, select **View>Equipment Details** from the Main Menu bar.

Result: The Equipment Selection Screen appears.

- 5 On the Equipment Selection Screen, select the port in question.

Result: The OCH Port Details Screen appears.

Note the **Interface Format (IFMT)** and **Interface Optics (IOPT)** of the identified input port. Then determine the expected minimum power level for the identified input port. Go to “SE 403-1: Interface Formats, Optics, and Associated Power Levels Table” (10-15).

- 6 Disconnect the input fiber connector from the input port and connect it to the power meter.

IF...	THEN...
the signal is less than the value determined in Step 5	the fiber or connectors may need cleaning. Go to “Task 501: Cleaning LC and MPX Connectors” (11-2).
the signal is greater than the value determined in Step 5	continue to Step 8.

- 7 When the fiber and connectors are clean, connect the input fiber to the power meter again.

IF...	THEN...
the signal is still less than the value determined in Step 5	the source of the alarm condition is not the LambdaRouter™ AOS. Reattach the fiber. <i>Stop! End of Task.</i>
the signal is greater than the value determined in Step 5	continued to the next step.

- 8 Clean and re-attach the connectors to the input port.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

-
- 9** At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same LOS alarm message	the condition has cleared. <i>Stop! End of Task.</i>
the Alarm List still displays the same LOS alarm message	the source of the alarm condition is not the LambdaRouter TM AOS. <i>Stop! End of Task.</i>

END OF STEPS

**SE 402-1: Interface
Formats, Optics, and
Associated Power Levels
Table**

After determining the IFMT and the IOPT, use the information in the following table to ascertain the minimum levels of signal power expected at the input port.

Interface Format	Interface Optics (user provisioned)	Min Ingress Power for DOS (dBm)
OC-48/ STM-16	SR (ITU I-16)	-10
	IR (ITU S-16.1)	-5
	LR (ITU L-16.1)	-2
	Other	User provisioned
OC-192/ STM-64	VSR600-2R1; VSR2000-2R1	-6
	VSR600-2M1	2
	VSR600-2M2	-1
	VSR2000-2L2	-5
	SR (ITU I-64.1)	-6
	IR (ITU S-64.2,3b)	-1
	LR (ITU L-64.2ac)	-2
	Other	User provisioned
OC-768/ STM-256	LambdaXtreme	5
	Other	User provisioned
GBELX	SR	-11
	Other	User provisioned
HSBB	IR	-5
	Other	User provisioned
Other	Other	User provisioned

Abbreviations for IOPT and IFMT used in the table are defined below:

- GBELX—Gigabit Ethernet
- HSBB—High-Speed Broad Band
- IR—Intermediate Reach
- LR—Long Reach
- Other—any other format or optic, including unknown or unspecified
- SR—Short Reach

- VSR—Very Short Reach

If the input port is on an Optical-Electrical-Optical (OEO) port unit, use the information in the table below to ascertain the minimum levels of signals expected at the end of the input SWIP cable and at the output SWIP.

Input Port Type	Signal Level at End of Input SWIP Cable, dBm	Signal Level, Output SWIP, dBm
OXI-10GC	-5	-9
OXI-2GC	-9	-13

Task 403: Clearing Incoming Loss of Signal (Optical) (LOS)

Purpose Use this procedure to clear an incoming loss of optical signal condition. A loss of signal (LOS) condition occurs when insufficient signal power is detected by the power monitor on the cross-connected OXI input port. This drop in power can be caused by

- A fiber cable jack that is loosely connected to the input port
- An incoming fiber problem, including broken fiber
- A faulty Port Unit
- A faulty signal source

When the power monitor detects insufficient signal power, a loss of signal alarm message is generated.

If the level of this alarm is Minor, it is an Idle Port alarm and requires no immediate action.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ AOS, an electrostatic discharge (ESD) strap, and an optical power meter with LC connectors, such as the HP8140A equipped with HP81401A (ITE# 6550).
- Use the electrostatic discharge (ESD) strap.
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Have the required equipment on hand. This equipment is listed in Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the LambdaRouter™ AOS with a Privilege Code of M1 and P1 or greater from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Safety precautions Read and understand the following safety precautions:



WARNING

Unterminated optical connectors may emit invisible laser radiation. Eye damage may occur if beam is viewed directly or with improper optical instruments. Avoid direct exposure to beam.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 4, “Alarm Messages and Trouble-Clearing Tasks Background”

Task

Complete the following steps to clear an incoming loss of signal condition.

-
- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

-
- 2 Check the fiber connection at the port reported in the alarm message. Ensure that the connection is secure and not visibly damaged.

- 3 At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same LOS alarm message	the condition has cleared. <i>Stop! End of Task.</i>
the Alarm List still displays the same LOS alarm message	the alarm condition has not cleared. Continue to the next step.

- 4 At the OCI System View, select **View>Equipment Details** from the Main Menu bar.

Result: The Equipment Selection Screen appears.

- 5 On the Equipment Selection Screen, select the port in question.

Result: The Och Port Details Screen appears.

Note the **Interface Format (IFMT)** and **Interface Optics (IOPT)** of the identified input port. Then determine the expected minimum power level for the identified input port. Go to “SE 403-1: Interface Formats, Optics, and Associated Power Levels Table” (10-15).

- 6 Disconnect the input fiber connector from the input port and connect it to the power meter.

IF...	THEN...
the signal is less than the value determined in Step 5	the fiber or connectors may need cleaning. Go to “Task 501: Cleaning LC and MPX Connectors” (11-2).
the signal is greater than the value determined in Step 5	continue to Step 8.

- 7 When the fiber and connectors are clean, connect the input fiber to the power meter again.

IF...	THEN...
the signal is still less than the value determined in Step 5	the source of the alarm condition is not the LambdaRouter™ AOS. Clean and reattach the input fiber to input port. Go to “Task 501: Cleaning LC and MPX Connectors” (11-8). <i>Stop! End of Task.</i>
the signal is greater than the value determined in Step 5	continued to the next step.

- 8 Clean and re-attach the connectors to the input port.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11-8)

- 9 At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display the same LOS alarm message	the condition has cleared. <i>Stop! End of Task.</i>
the Alarm List still displays the same LOS alarm message	the alarm condition has not cleared. The circuit pack may be faulty.

- 10 Replace the failed circuit pack. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-2).

-
- 11** Verify that the alarm condition has cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the Alarm List does not display LOS alarm message	the condition has cleared. <i>Stop! End of Task.</i>
the Alarm List still displays the same LOS alarm message	the alarm condition has not cleared. Return to Step 10 only once. If the alarm does not clear after repeating Step 10, contact Lucent Technical Support. <i>Stop! End of Task.</i>

END OF STEPS

**SE 403-1: Interface
Formats, Optics, and
Associated Power Levels
Table**

After determining the IFMT and the IOPT, use the information in the following table to ascertain the minimum levels of signal power expected at the input port.

Interface Format	Interface Optics (user provisioned)	Min Ingress Power for DOS (dBm)
OC-48/ STM-16	SR (ITU I-16)	-10
	IR (ITU S-16.1)	-5
	LR (ITU L-16.1)	-2
	Other	User provisioned
OC-192/ STM-64	VSR600-2R1; VSR2000-2R1	-6
	VSR600-2M1	2
	VSR600-2M2	-1
	VSR2000-2L2	-5
	SR (ITU I-64.1)	-6
	IR (ITU S-64.2,3b)	-1
	LR (ITU L-64.2ac)	-2
	Other	User provisioned
OC-768/ STM-256	LambdaXtreme	5
	Other	User provisioned
GBELX	SR	-11
	Other	User provisioned
HSBB	IR	-5
	Other	User provisioned
Other	Other	User provisioned

Abbreviations for IOPT and IFMT used in the table are defined below:

- GBELX—Gigabit Ethernet
- HSBB—High-Speed Broad Band
- IR—Intermediate Reach
- LR—Long Reach
- Other—any other format or optic, including unknown or unspecified
- SR—Short Reach
- VSR—Very Short Reach

If the input port is on an Optical-Electrical-Optical (OEO) port unit, use the information in the table below to ascertain the minimum levels of signals expected at the end of the input SWIP cable and at the output SWIP.

Input Port Type	Signal Level at End of Input SWIP Cable, dBm	Signal Level, Output SWIP, dBm
OXI-10GC	-5	-9
OXI-2GC	-9	-13

Task 404: Clearing Incoming Signal Degrad B2 (BER)

Purpose Use this procedure to clear an incoming signal degrade B2 (BER) condition. This alarm message indicates that the line bit error rate (BER) threshold has been crossed. This threshold is provisionable with values from 10^{-5} to 10^{-9} .

If the level of this alarm is Minor, it is an Idle Port alarm and requires no immediate action.

Before you begin Before beginning this task:

- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear an incoming signal degrade BER condition.

-
- 1** The source of the alarm condition is not the LambdaRouter™ AOS.

END OF STEPS



Task 405: Clearing Incoming Signal Fail B2 (EBER)

Purpose Use this procedure to clear an incoming signal fail B2 (EBER) condition. This alarm message indicates that the line excessive bit error rate (EBER) threshold has been crossed. This threshold is provisionable with values from 10^{-3} to 10^{-5} .

If the level of this alarm is Minor, it is an Idle Port alarm and requires no immediate action.

Before you begin Before beginning this task:

- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to clear an incoming signal fail B2 EBER condition.

-
- 1 The source of the alarm condition is not the LambdaRouter™ AOS.

END OF STEPS



Task 406: Clearing Input Optical Amplifier Failure (MOD)

Purpose Use this procedure to clear an input optical amplifier failure. This alarm indicates that an optical amplifier for a busy port was not able to produce the target output power to the switch fabric.

Before you begin Before beginning this task:

- Obtain a replacement Optical Cross-connect Interface circuit pack
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter TM AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 and P3 from the OCI; use “Task 510: Logging in to LambdaRouter TM AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Use this procedure to clear the OA failure condition.

-
- 1** Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

-
- 2 Change the optical amplifier output power goal to a different acceptable level. At the OCI System View, select **Configuration>Provision** from the Main Menu bar.

Result: The Provision Parameters for Equipment Screen appears.

- 3 On the left side of the screen, enter an AID for the desired Och port, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment; then click **Provision**.
-

- 4 Click the **Input** tab.
-

- 5 Click the General Parameters tab and enter a new value for Optical Amplifier Output Power (OAPWR).
-

- 6 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same input optical amplifier failure alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of task.</i>
the same input optical amplifier failure alarm is still on the Alarm List	the condition has not cleared. Continue to the next step.

- 7 Reset the Optical Cross-connect Interface circuit pack containing the alarmed port.

Reference: “Task 521: Resetting a System, Shelf, or Circuit Pack” (11-99).

-
- 8** Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same input optical amplifier failure alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of task.</i>
the same input optical amplifier failure alarm is still on the Alarm List	the condition has not cleared. Continue to the next step.

-
- 9** Replace the Optical Cross-connect Interface circuit pack containing the alarmed port.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

END OF STEPS



Task 407: Clearing Optical Amplifier On Failure (MOD-ERR)

Purpose Use this procedure to clear an optical amplifier on failure. This alarm indicates that an optical amplifier for an input port did not reduce output power when expected. For example, the optical amplifier for an idle input port with no incoming facility signal should not generate any detectable signal toward the switch fabric.

Before you begin Before beginning this task:

- Obtain a replacement Optical Cross-connect Interface circuit pack
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Use this procedure to clear the optical amplifier on failure condition.

-
- 1 Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

- 2 Reset the Optical Cross-connect Interface circuit pack containing the alarmed port.

Reference: “Task 521: Resetting a System, Shelf, or Circuit Pack” (11-99).

- 3 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same optical amplifier on failure alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of task.</i>
the same optical amplifier on failure alarm is still on the Alarm List	the condition has not cleared. Continue to the next step.

- 4 Replace the Optical Cross-connect Interface circuit pack containing the alarmed port circuit pack.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

- 5 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same optical amplifier on failure alarm is not on the Alarm List	the condition has cleared.
the same optical amplifier on failure alarm is still on the Alarm List	the condition has not cleared. Contact Lucent Technical Support.

END OF STEPS



Task 408: Clearing LOS and Optical Amplifier On Failure (LOS-MOD-ERR)

Purpose Use this procedure to clear an LOS and optical amplifier on failure condition. This alarm indicates that an input port had an incoming facility signal failure and its optical amplifier did not reduce power to the switch fabric.

Before you begin Before beginning this task:

- Obtain a replacement Optical Cross-connect Interface circuit pack
- Turn off the audible alarm, if necessary. Refer to “Task 522: Turning Off Audible Alarm” (11-102).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-19).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-56).
- Log in to the network element with a Privilege Code of M1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-49).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Use this procedure to clear the LOS and optical amplifier on failure condition.

-
- 1** Determine the Access Identifier (AID) of the alarm by viewing the current Alarms List. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed. The AID provides the shelf, slot, and port location of the failure.

-
- 2 Reset the Optical Cross-connect Interface circuit pack containing the alarmed port.

Reference: “Task 521: Resetting a System, Shelf, or Circuit Pack” (11-99).

- 3 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same LOS and optical amplifier on failure alarm is not on the Alarm List	the condition has cleared. <i>Stop! End of task.</i>
the same LOS and optical amplifier on failure alarm is still on the Alarm List	the condition has not cleared. Continue to the next step.

- 4 Replace the Optical Cross-connect Interface circuit pack containing the alarmed port.

Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-75)

- 5 Check the Alarm List to determine if the condition cleared. At the OCI System View, select **Fault>NE Alarm List** from the Main Menu bar.

IF...	THEN...
the same LOS and optical amplifier on failure alarm is not on the Alarm List	the condition has cleared.
the same LOS and optical amplifier on failure alarm is still on the Alarm List	the condition has not cleared. Contact Lucent Technical Support.

END OF STEPS





11 Supporting Tasks

Overview

Purpose This chapter provides detailed procedures for performing supporting tasks such as, logging in to and out of the system, database back up and restore, and removing and replacing equipment on the LambdaRouter[™] AOS.

Contents This chapter contains the following sections:

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Task 501: Cleaning LC and MPX Connectors	11 - 9
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Task 500: Assigning and Cabling a Spare SWIP to a Port

Purpose This procedure is used to assign, and then cable a spare input Switch Interface Point (SWIP) or output SWIP to a port.

This task is performed when a port is associated with either an input SWIP or output SWIP that has failed. The port must change its association from the failed input SWIP or output SWIP to a spare input SWIP or spare output SWIP.

Refer to Chapter 5, “Supporting Tasks Background” for additional information.

Before you begin Before beginning this task

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™, an electrostatic discharge (ESD) strap, and a 72LC-base tool.
- Use the electrostatic discharge (ESD) strap.
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local LambdaRouter™ AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 20).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11- 57).
- Log in to the LambdaRouter™ AOS with a Privilege Code of P3 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11- 50).

Safety precautions Read and understand the following safety precautions:



WARNING

Unterminated optical connectors may emit invisible laser radiation. Eye damage may occur if beam is viewed directly or with improper optical instruments. Avoid direct exposure to beam.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 5, “Supporting Tasks Background”
- “Task 501: Cleaning LC and MPX Connectors” (11- 9)
- “Task 518: Removing or Replacing a Shelf Cover” (11- 93)

Task

Complete the following steps to assign and cable a spare input SWIP or output SWIP to a port.

- 1 Determine the spare SWIP to be assigned to the port. Rules for selecting the spare SWIP are in Chapter 5, “Supporting Tasks Background”.
- 2 At the OCI System View, double-click on the Optical Interface Shelf (OIS) on which the port that is associated with the failed SWIP is located.

Result: The Shelf View Screen for the selected shelf appears.

-
- 3 Right-click on the port that is associated with the failed SWIP and select **Provision och port** from the pop-up menu.

Result: The Provision Port och x-x-x Screen appears.

- 4 Provision the port with the spare SWIP that was determined in Step 1.

Result: A service-affecting warning appears.

- 5 Click **Yes**.

Result: The formerly spare SWIP becomes associated with the port and the failed SWIP is automatically dissociated. In addition, a suspect SWIP alarm is raised.

Important! If a cross-connection is assigned to the port-SWIP combination involved in this task, the LambdaRouter™ AOS will at this point begin the process of re-establishing the cross-connection on the fabric side for this SWIP. If the input port for this cross-connection has a customer signal present, an alarm may be generated for the corresponding output port because the port-to-SWIP re-cabling has not yet been completed. That alarm cannot be cleared until the re-cabling has been completed. The alarm will be for an output port loss of signal, with Condition Type CTNEQPT.

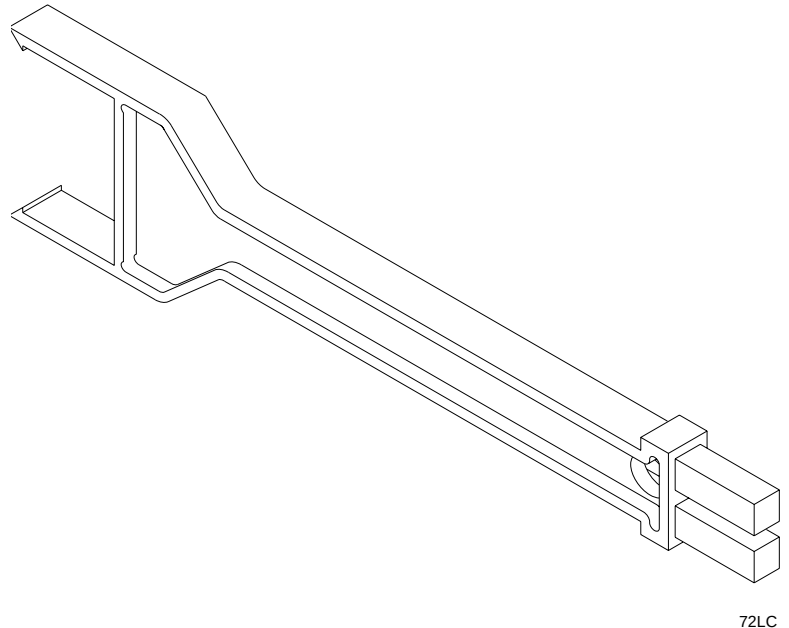
- 6 Once the spare SWIP has been assigned to the port, then the corresponding port-to-SWIP fiber must be moved from the now-suspect SWIP to the new (formerly-spare) SWIP assigned above.

At the Switch Shelf, remove the shelf cover.

Reference: “Task 518: Removing or Replacing a Shelf Cover” (11-93).

- 7 On the Switch Shelf Fiber Distribution Panel, locate the termination point where the fiber from the associated port connects to the now-suspect input or output SWIP.

-
- 8** Use the 72LC-base to depress the plastic latches that secure the fiber connection to the adapter and pull until the fiber connector releases from the adapter. The figure below shows the tool used for disconnecting fiber connectors from the FDP.



-
- 9** Remove the white cap and clean the connector.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11- 9)

-
- 10** Insert this fiber connector into the modular adapter that corresponds to the new (formerly-spare) SWIP for this port. The narrow end of the 72 LC base can be used push the fiber connector into the modular adapter.
-
- 11** Wrap a yellow **Suspect** label around the white modular adapter plug, and insert this plug into the adapter that corresponds to the now-suspect SWIP.

12 Replace the Switch Shelf front cover.

Reference: “Task 518: Removing or Replacing a Shelf Cover” (11-93).

END OF STEPS



Task 501: Cleaning LC and MPX Connectors

- Purpose** This procedure is used to clean LC and MPX connectors
- As directed by a trouble-clearing task
 - When adding new connections from a network element or optical component
 - Before connection to a test device
 - Anytime a dust cap is removed or a fiber is disconnected
- For additional information, including specific requirements for inspecting a cleaned connector, refer to Chapter 4, “Alarm Messages and Trouble-Clearing Tasks Background”.

Important! Follow local procedures to clean LC and MPX connectors. In the absence of local procedures, use this task.

- Before you begin** Before beginning this task
- Read and follow all safety instructions in Chapter 1, “Safety”.
 - Obtain the following equipment:
 - Solvent Dispenser Cleaner: VCT-184703
 - Electrostatic Discharge Strap
 - Electronic Grade Isopropyl Alcohol, greater than 99% pure and/or pre-moistened alcohol wipes, greater than 99% pure
 - NTT-ME CLETOP Type A and B Cassette Connector Cleaners and replacement cleaning tapes
 - NTT-ME CLETOP Stick Type Cleaners —1.25 mm and 2.5 mm
 - Inert dusting gas or ionized air gun, if available
 - Video fiberscope, such as the Westover Model FVW-209
 - Use the electrostatic discharge (ESD) strap.
 - Have a clean, dry surface on which to work
 - Remove the shelf cover. If necessary, refer to “Task 518: Removing or Replacing a Shelf Cover” (11- 93). Be sure to replace it when the task is complete.

- Safety precautions** Read and understand the following safety precautions:

**DANGER**

Use a static ground wrist strap whenever handling circuit packs or working on a LambdaRouter™ AOS 128/256 system to prevent electrostatic discharge damage to sensitive components.

**WARNING**

Do not attempt to clean optically powered connectors.

**WARNING**

Unterminated optical connectors may emit invisible laser radiation. Eye damage may occur if a beam is viewed directly or with improper optical instruments. Avoid direct exposure to a beam. Always use an optical power meter to verify that no power is present on the connector before viewing it.

**WARNING**

Alcohol is flammable and is harmful if swallowed, inhaled, or absorbed through the skin. Keep alcohol away from heat, sparks, or flames. Avoid contact with eyes, skin, and clothing.

**CAUTION**

When removing a connector or a dust cap, always grasp the housing or body of the connector or dust cap. Never pull on the fiber itself.

Related information

For related information, see

- Chapter 5, “Supporting Tasks Background” for background information about this task.
- Chapter 1, “Safety”

Task

Complete the following steps to clean LC and MPX connectors.

1

IF cleaning a connector on an...	THEN...
optical jumper	remove the dust cap, if present, from the optical connector. Then continue to the next step.
Optical Cross-Connect Interface faceplate	disconnect the optical fiber from the Optical Cross-Connect Interface faceplate. Continue to Step 8.
MPX connector at the OIS backplane	gently remove the MPX connector. Go to “SE 501-3: Cleaning MPX connector” (11-18). <i>Stop! End of Task.</i>
MPX connector at the back of Optical Cross-Connect Interface circuit pack	remove the Optical Cross-Connect Interface circuit pack. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11- 76). Continue to Step 8.

2

Grasp the connector housing and place the connector ferrule endface perpendicular to the pre-saturated isopropyl alcohol wipe. Rub it against the wipe three times in a figure eight pattern. This applies the alcohol solvent to the endface, which initially loosens and scrubs away organic and solid contaminants.

3

IF cleaning a connector on an...	THEN...
optical jumper	continue to the next step.

IF cleaning a connector on an...	THEN...
MPX connector at the back of Optical Cross-Connect Interface circuit pack	continue to step 8.

-
- 4 Using the CLETOP Type A cleaner, clean the connector.

Reference: “SE 501-2: Cleaning LC connector using CLETOP type A cleaner” (11- 16).

-
- 5 Using an optical fiber scope, verify that the connector is clean.

Reference: “SE 501-1: Inspecting an optical connector using a video fiberscope” (11- 14).

6

IF the connector is...	THEN...
clean	<i>Stop! End of Task.</i>
dirty	repeat Step 4 through Step 6. If the connector remains dirty after performing Step 4 through Step 6 twice, continue to the next step.

7

IF...	THEN...
the fiber comes from the facility or customer side	follow local procedures to replace the fiber. <i>Stop! End of Task.</i>
the fiber is a port-to-FDP connection	contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 8 Using electronic grade isopropyl alcohol that is equal to or greater than 99% pure, dampen one end of a lint-free stick type cleaner.

-
- 9 Insert the stick type cleaner into the connector. Rotate the stick type cleaner to loosen and scrub away contaminates.

10 Using the dry end of the swab, rotate the swab to dry connector.

11 Verify the connector is clean. Go to “SE 501-1: Inspecting an optical connector using a video fiberscope” (11- 14).

END OF STEPS

SE 501-1: Inspecting an optical connector using a video fiberscope



WARNING

Always use an optical power meter to verify that there is no optical power present on the fiber connector before viewing.

Using a video fiberscope, such as the Westover 200X Model FVW-209, perform the following steps to inspect an optical connector.

- 1 To ensure that there is no power present before inspecting the connector, do the following:

IF the fiber to be inspected is...	THEN...
an input port-to-FDP fiber	disconnect the fiber at the input port OIS backplane.
the FDP-to-output port fiber	disconnect the fiber from the appropriate output SWIP at the FDP. Make sure to clean and re-attach the fiber.
MPX connector at the back of Optical Cross-Connect Interface circuit pack	remove the Optical Cross-Connect Interface circuit pack. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11- 76)
MPX connector at the OIS backplane	gently remove the MPX connector.

- 2 Follow the instructions in the manual provided with the video fiberscope to view the ferrule endface of the connector under inspection.
- 3 The ferrule endface should be free of any contaminates. The inspection criteria is provided in Chapter 5, “Supporting Tasks Background” under “Task 501: Cleaning LC and MPX and Connectors” (5- 7).

-
- 4 Look for a clean, white ferrule tip with a dark circle in the center. This is the fiber cladding and core. To confirm that the observed spots are on the connector, slowly disconnect the connector while viewing it through the fiberscope and verify that the spots fade away as the connector is removed.

5

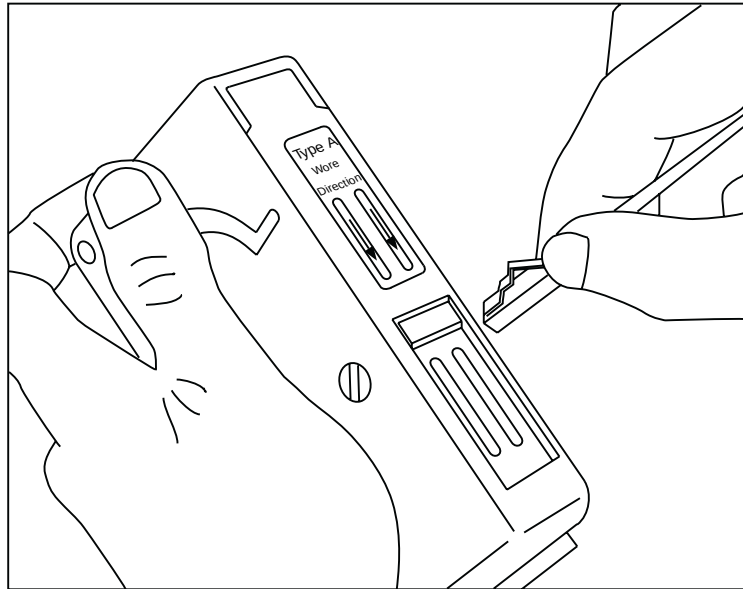
IF inspection...	THEN...
passed	<i>Stop! End of Task.</i>
failed	clean the connector again. If the connector fails inspection after three cleanings, replace the circuit pack. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11- 76).

END OF STEPS

SE 501-2: Cleaning LC connector using CLETOP type A cleaner

Complete the following steps to clean an LC connector using the CLETOP Type A cleaner.

- 1 Hold the CLETOP Type A cleaner in the palm of one hand with the cleaning side facing you.



NC-USM217

- 2 Press the lever with the thumb of the same hand all the way down and hold. This advances the cloth in the cassette and simultaneously opens the shutter door. Do not release the lever.
- 3 While holding the lever down with one hand, use the other hand to press the optical ferrule endface against the cleaning cloth in a slot and uniformly drag it in the direction indicated by the arrows on the cleaner. Make sure that the endface is in contact with the cleaning cloth at all times, and that uniform force is used while dragging it.
- 4 Lift the connector from the cloth. Rotate the connector 90 degrees and repeat the wiping procedure using the other slot.

5 Release the lever and allow it to return to its initial position.

6 Inspect the ferrule endface. Go to “SE 501-1: Inspecting an optical connector using a video fiberscope” (11- 14).

E N D O F S T E P S

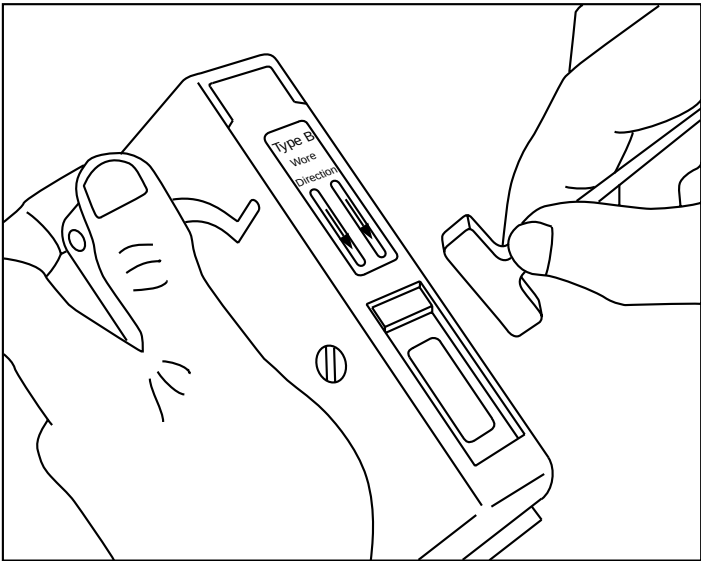
SE 501-3: Cleaning MPX connector

Complete the following steps to clean an MPX connector.

1

IF...	THEN...
a CLETOP type B cleaner is not available	continue to Step 9.
a CLETOP type B cleaner is available	continue to the next step.

2 Hold the CLETOP Type B cleaner in the palm of one hand with the cleaning side facing you.



3 Press the lever with the thumb of the same hand all the way down and hold. This advances the cloth in the cassette and simultaneously opens the shutter door. Do not release the lever.

4 Apply a drop of electronic grade isopropyl alcohol that is 99% pure to the exposed cloth using a single drop applicator.

5 While holding the lever down with one hand, use the other hand to lightly press the beveled optical ferrule endface against the cleaning

cloth at an 8 degree angle matching the angle of the endface and uniformly drag it in the direction indicated by the arrows on the cleaner. Make sure that the endface is in contact with the cleaning cloth, and that uniform pressure is used while dragging it. This initially loosens and scrubs away organic and solid contaminants.

-
- 6** Advance the cloth in the cassette to a dry area. Dry the ferrule endface by dragging it against the dry cloth in the same manner as above.

-
- 7** Release the lever and allow it to return to its initial position.

-
- 8** Inspect the ferrule endface. Go to “SE 501-1: Inspecting an optical connector using a video fiberscope” (11- 14).

Stop! End of Task.

-
- 9** Using electronic grade isopropyl alcohol that is equal to or greater than 99% pure, dampen one end of a lint-free stick type cleaner.

-
- 10** Wipe the dampened end of the stick cleaner along the length of the MPX endface in a forward and backward motion.

-
- 11** Immediately wipe a dry lint-free stick type cleaner along the length of the MPX endface in a similar fashion.

-
- 12** Air dry the endface with inert dusting gas or use an ionized-air gun.

-
- 13** Inspect the ferrule endface. Go to “SE 501-1: Inspecting an optical connector using a video fiberscope” (11- 14).

END OF STEPS



Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter TM AOS

Purpose This procedure is used to connect the OCI to, or disconnect the OCI from, a local LambdaRouter TM AOS.

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Obtain an OCI 10BaseT Ethernet interface cable (CAT 3 or higher, CAT 5 is recommended) with RJ45 connectors.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 510: Logging in to LambdaRouter TM AOS from the Optical Craft Interface” (11- 50)
- “Task 513: Logging Out and Disconnecting from LambdaRouter TM AOS” (11- 58)

Task Complete the following steps to connect the OCI to, or disconnect the OCI from, a local LambdaRouter TM AOS.

1

IF the OCI is being...	THEN...
connected to a LambdaRouter TM AOS	continue to “SE 502-1: Connecting the OCI to the LambdaRouter TM AOS” (11-21).
disconnected from a LambdaRouter TM AOS	continue to “SE 502-2: Disconnecting the OCI from a LambdaRouter TM AOS” (11-22).

END OF STEPS

**SE 502-1: Connecting the
OCI to the LambdaRouter
™ AOS**

Complete the following steps to connect the OCI to a LambdaRouter ™ AOS.

-
- 1** Plug one end of the interface cable into the OCI and the other end into the CIT port on the LambdaRouter ™ AOS System Controller Shelf User Panel.

-
- 2** Log into the OCI and the LambdaRouter ™ AOS.

Reference: “Task 510: Logging in to LambdaRouter ™ AOS from the Optical Craft Interface” (11- 50).

END OF STEPS

**SE 502-2: Disconnecting
the OCI from a
LambdaRouter™ AOS**

Complete the following steps to disconnect the OCI from a LambdaRouter™ AOS.

-
- 1 Log out of all LambdaRouter™ AOSs and the OCI.

Reference: “Task 513: Logging Out and Disconnecting from LambdaRouter™ AOS” (11- 58).

-
- 2 Disconnect the interface cable from the CIT port on the LambdaRouter™ AOS System Controller Shelf User Panel and from the OCI.

END OF STEPS



Task 503: Deleting a Circuit Pack, Shelf, or Maintenance Group

- Purpose** This procedure is used to delete the following LambdaRouter™ AOS equipment from the system database:
- Port unit (OXI, OXI-4A13, OXI4A15, OXI-10GC, and OXI-2GC)
 - Personality module
 - Optical interface shelf (OIS-T, OIS-10G, OIS-2G, and OIS-MX)
 - SWIP maintenance group (SWMG)

- Before you begin** Before beginning this task:
- Read and follow all safety instructions in Chapter 1, “Safety”.
 - Obtain the work instructions for this task and note the assigned AIDs for the input and output port.
 - Connect the OCI to the local LambdaRouter™ AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 20).
 - Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11- 57).
 - Log in to the LambdaRouter™ AOS from the OCI with a Privilege Code of P3 ; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11- 50).

- Related information** For related information, see the following section in this document:
- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to delete a circuit pack, optical interface shelf, or SWIP maintenance group from the system database.

1

IF deleting...	THEN...
an optical interface shelf	go to “SE 503-1: Deleting an optical interface shelf” (11- 25).
a port unit	go to “SE 503-2: Deleting a port unit” (11- 26).
a SWIP maintenance group	go to “SE 503-3: Deleting a SWIP maintenance group” (11- 28).
a Personality Module	go to “SE 503-4: Deleting a personality module” (11- 29).

END OF STEPS

SE 503-1: Deleting an optical interface shelf

Complete the following steps to delete an optical interface shelf from the system database.

-
- 1 At the OCI, from the System View, double-click on the optical interface shelf to be deleted.

Result: The Shelf View for the selected optical interface shelf appears.

-
- 2 Verify that no port unit slot objects exist on the shelf.

IF port unit slot objects...	THEN...
do not exist on the shelf	continue to the next step.
exist on the shelf	delete all port unit slot objects. Reference: "SE 503-2: Deleting a port unit" (11- 26).

-
- 3 At the Optical Craft Interface, from the System View Main Menu bar, select **Configuration>Delete**.

Result: The Delete Equipment Selection Screen appears.

-
- 4 Enter an AID for the desired optical interface shelf, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment; then click **Select**.

Result: A Confirmation Screen appears.

-
- 5 Click **Yes**.

Result: The equipment is deleted from the system database.

END OF STEPS

SE 503-2: Deleting a port unit

Complete the following steps to delete a port unit from the system database.

- 1 Verify that cross-connections do not exist on any port associated with the port unit to be deleted. Refer to the *LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 User Operations Guide* “Task 502: Retrieving Cross-Connections” (14-23).

IF cross-connections...	THEN...
do not exist on any port associated with the port unit to be deleted	continue to the next step.
exist on one or more port associated with the port unit to be deleted	delete all cross-connections associated with the ports on the port unit being deleted. Reference: “Task 504: Deleting a Cross-Connection” (11- 30).

2

IF the port unit...	THEN...
has already been extracted from the optical interface shelf	continue to the next step.
has not been extracted from the optical interface shelf	extract the port unit. Reference: <i>LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 Alarm Messages and Trouble-Clearing Guide, 365-375-010R3.0</i> “Task 515: Removing, Inserting, and Replacing a Circuit Pack.”

- 3 At the Optical Craft Interface, from the System View Main Menu bar, select **Configuration>Delete**.

Result: The Delete Equipment Selection Screen appears.

- 4 Enter an AID for the desired port unit, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment; then click **Select**.

Result: A Confirmation Screen appears.

5 Click **Yes**.

Result: The equipment is deleted from the system database.

END OF STEPS

SE 503-3: Deleting a SWIP maintenance group

Complete the following steps to delete a SWIP maintenance group from the system database.

- 1 Verify that both SWMGs exist, and that the SWMG to be deleted is OOS-MA and the other SWMG is IS-NR. Refer to the *LambdaRouter™ All Optical Switch (AOS) 128/256 Release 3.0 User Operations Guide* “Task 300: Viewing the Network Element Configuration Information (12-3)”.

IF the SWMGs...	THEN...
are in the required states	continue to the next step.
are not in the required states	remove the SWMG that is being deleted from service, and/or return the SWMG not being deleted to service as required. Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11- 66).

- 2 At the Optical Craft Interface, from the System View Main Menu bar, select **Configuration>Delete**.

Result: The Delete Equipment Selection Screen appears.

- 3 Enter an AID for the desired SWMG, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment; then click **Select**.

Result: A Confirmation Screen appears.

- 4 Click **Yes**.

Result: The equipment is deleted from the system database.

END OF STEPS

SE 503-4: Deleting a personality module

Complete the following steps to delete a personality module from the system database.

1

IF the personality module...	THEN...
has already been extracted from the system controller shelf	continue to the next step.
has not been extracted from the system controller shelf	extract the personality module. Reference: “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-76)

2 At the Optical Craft Interface, from the System View Main Menu bar, select **Configuration>Delete**.

Result: The Delete Equipment Selection Screen appears.

3 Enter an AID for the desired personality module, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment; then click **Select**.

Result: A Confirmation Screen appears.

4 Click **Yes**.

Result: The equipment is deleted from the system database.

END OF STEPS



Task 504: Deleting a Cross-Connection

Purpose Use this procedure to delete legs of an existing cross-connection on the LambdaRouter TM AOS.

- Before you begin** Before beginning this task:
- Read and follow all safety instructions in Chapter 1, “Safety”.
 - Obtain the work instructions for this task and note
 - the assigned AIDs for the input and output ports
 - the cross-connection type to be deleted
 - Ensure that the cross-connection already exists.
 - Connect the OCI to the local LambdaRouter TM AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter TM AOS” (11- 20).
 - Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11- 57).
 - Log in to the LambdaRouter TM AOS with a Privilege Code of P3 from the OCI; use “Task 510: Logging in to LambdaRouter TM AOS from the Optical Craft Interface” (11- 50).

Related information For related information, see the following sections in this document:

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to delete a cross-connection.

-
- 1 At the Optical Craft Interface, from the System View Main Menu bar, select **Configuration>Cross-Connection**.

Result: The Cross-Connection Wizard is invoked and the Cross-Connection Action Selection Screen appears.

- 2 Select **Delete leg(s) of an existing cross-connection** and click **Next**.

Result: The Existing Cross-Connection Selection Screen appears.

-
- 3 On the left side of the Existing Cross-Connection Selection Screen, enter an AID for the system, optical interface shelf, port unit, or OCH port that has an existing cross-connection, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment; then click **Select**.

Result: All cross-connections associated with the selected equipment are shown on the right side of the Existing Cross-Connection Selection Screen.

4

IF deleting...	THEN...
one or more cross-connections in the list	click the checkbox in the Delete column beside each cross-connection to be deleted. Result: A checkmark appears beside the selected cross-connections.
all cross-connections in the list	click the Delete all XC(s) in the List checkbox. Result: A checkmark appears beside all cross-connections in the list.
cross-connections in the same configuration	click the Delete XC(s) in the Configuration checkbox; then select a cross-connection from the list. Result: The selected cross-connection is highlighted.

-
- 5 Click **Finish**.

Result: A Confirmation Screen appears.

-
- 6 Click **Yes**.

Result: A Service Affecting Warning appears.

-
- 7 Click **Yes**.

Result: A successful completion message appears.

8 Click **OK**.

Result: The successful completion message closes.

9

IF...	THEN...
deleting another cross-connection currently displayed in the list	return to Step 4.
retrieving a list of cross-connections for a different equipment selection	return to Step 3.
deleting cross-connections is complete	click Cancel . Result: The Existing Cross-Connection Selection Screen closes.

END OF STEPS



Task 505: Deleting a Test Access Session

Purpose This procedure is used to delete an existing test access session on the LambdaRouter™ All Optical Switch (AOS) 128/256.

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Obtain the work instructions for this task and note
 - the assigned AIDs for the input and output ports
 - the type of test session
- Ensure that the test access cross-connection already exists.
- Connect the OCI to the local LambdaRouter™ AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 20).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11- 57).
- Log in to the LambdaRouter™ AOS with a Privilege Code of T1 or greater from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11- 50).

Related information For related information, see the following sections in this document:

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to delete an existing test access session.

- 1** At the Optical Craft Interface, from the System View Main Menu bar, select **Fault>Test Access**.

Result: The Test Access Wizard is invoked and the Test Access Action Selection Screen appears.

- 2** Select **Delete an existing test access session** and click **Next**.

Result: The Delete Test Access Selection Screen appears.

3 Click Browse.

Result: The Delete Test Access Equipment Selection Screen appears.

4 Enter an AID for the desired system, shelf, port unit, or OCH port, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment.

5 Click Select.

Result: The Delete Test Access Selection Screen appears. The test access sessions are displayed in the order in which they are returned from the system. The list can be sorted by clicking on any column in the Delete Test Access Selection Screen.

6 Select the test access session to be deleted; then click **Next**.

Result: The Test Access Summary Screen appears.

7 Review the test access session information; then click **Finish**.

Result: A Confirmation Screen appears.

8 Click Yes.

Result: The selected test access session is deleted and the Test Access Action Selection Screen appears.

9

IF...	THEN...
deleting another test access session	return to Step 2.
another test access session will not be deleted	click Close . Result: The Test Access Action Selection Screen closes.

END OF STEPS



Task 506: Establishing a Cross-Connect Loopback

Purpose This procedure is used to establish a cross-connect loopback of an optical signal from an input port, through an optionally specified switch fabric, to a selected output port on the LambdaRouter TM AOS.

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Obtain the work instructions for this task and note the assigned AIDs.
- Ensure that the input and output ports involved in the loopback are provisioned and have a primary state of IS-NR or OOS-MA , or a primary state of OOS-AU with a secondary state of FLT.
- Connect the OCI to the local LambdaRouter TM AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter TM AOS” (11- 20).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11- 57).
- Log in to the LambdaRouter TM AOS with a Privilege Code of T4 or greater from the OCI; use “Task 510: Logging in to LambdaRouter TM AOS from the Optical Craft Interface” (11- 50).

Related information For related information, see the following sections in this document:

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to establish a cross-connect loopback.

- 1 At the Optical Craft Interface, from the System View Main Menu bar, select **Fault>Loopbacks**.

Result: The Cross-Connect Loopback Screen appears.

- 2 On the left side of the Cross-Connect Loopback Screen, enter an AID for the desired input port, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired input port.

3 Click **Select**.

Result: Information for the selected port and loopback options are displayed on the right side of the Cross-Connect Loopback Screen.

4

IF...	THEN...
the default output port is acceptable	continue to Step 7.
the default output port is not acceptable	click Select under the Output AID field. Result: The Select Output Port Screen appears.

5 Enter an AID for the selected output port, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired port.

6 Click **Select**.

Result: The Select Output Port Screen closes and the selected port is displayed on the Cross-Connect Loopback Screen.

7 Select the switch fabric to be used for the cross-connect loopback (0, 1, or both). For a forced cross-connect loopback, the Optical Craft Interface displays the active fabric. The inactive fabric is the default choice.

8

IF the selected port...	THEN...
is not already associated with an existing cross-connection (Cross-Connect Status is No)	select Operate Manual Cross Connect Loopback .
is already associated with an existing cross-connection (Cross-Connect Status is Yes)	select Operate Forced Cross Connect Loopback .

9 Click **Apply**.

Result: A Confirmation Screen appears.

10 Click **Yes**.

Result: The cross-connect loopback is established.

11

IF...	THEN...
additional cross-connect loopbacks are being established	return to Step 2 of this task.
additional cross-connect loopbacks are not being established	click Close Reference: The Cross-Connect Loopback Screen closes.

END OF STEPS



Task 507: Establishing a Test Access Session

Purpose This procedure is used to create a new test access cross-connection on the LambdaRouter™ All Optical Switch (AOS) 128/256.

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Obtain the work instructions for this task, note the assigned AIDs for input and output ports and the test access cross-connection type to be established.
- Ensure that the input and output ports involved in the loopback are provisioned and in-service.
- If appropriate, ensure that the OCH output port has a primary state of IS-NR or OOS-MA, or a primary state of OOS-AU with a secondary state of FLT.
- Connect the OCI to the local LambdaRouter™ AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 20).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11- 57).
- Log in to the LambdaRouter™ AOS with a Privilege Code of T1 or greater from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11- 50).

Related information For related information, see the following sections in this document:

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to create a new test access session.

- 1** At the Optical Craft Interface, from the System View Main Menu bar, select **Fault>Test Access**.

Result: The Test Access Wizard is invoked and the Test Access Action Selection Screen appears.

-
- 2 Select **Create a new test access session** and click **Next**.

Result: The Mode Selection Screen appears.

- 3 Select the mode for the new test access session and click **Next**.

Result: The Test Access Input Port Selection Screen appears.

- 4 Enter an AID for the desired OCH port, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment.

Result: The right side of the Test Access Port Selection Screen lists any cross-connections associated with the selected port.

- 5

IF...	THEN...
existing cross-connection(s) exist on the selected port	select a cross-connection from the list on the right side of the screen; then click Next . The Test Access TAM Port Selection Screen appears.
no existing cross-connections exist	click Next . Result: The Test Access TAM Port Selection Screen appears.

- 6 Click **Select** under the TAM Port 1 field.

Result: The Equipment Selection Screen appears.

- 7 Enter an AID for the desired OCH port to be used as the TAM port, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired output port.
-

- 8 Click **Select**.

Result: The selected port is displayed in the TAM Port 1 field.

9

IF creating a...	THEN...
MONE or MONEF test access session	continue to step 12.
MONF test access session	click Select under the TAM Port 2 field. Result: The Equipment Selection Screen appears.

-
- 10** Enter an AID for the desired OCH port to be used as the TAM port, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired output port.
-

- 11** Click **Select**.

Result: The selected port is displayed in the TAM Port 2 field.

- 12** Select the switch fabric side for the test access session (0, 1, 2, or 3). For a MONEF test access session select the switch fabric side for both the E port and F port.

Important! Selecting option **3** will use the switch fabric that is not currently carrying live traffic. Selecting **0** or **1** will use the specified switch fabric, and selecting **2** will use both switch fabrics, and may impact live traffic.

13

IF the input OCH port selected in Step 5 was...	THEN...
an OEO port that will be used to inject a test signal	in the E Port Injected Signal and/or F Port Injected Signal field - select 0 if the injected signal will be all zeros - select 1 if the injected signal will be all ones
an OEO port that is not being used to inject a test signal	select NA in the E Port Injected Signal field and/or F Port Injected Signal field and continue to Step 15.
a transparent port	continue to Step 15.

14

IF a J0 byte sequence...	THEN...
will be inserted	select the Yes radio button in the E Port Insert J0 Byte field and/or F Port Insert J0 Byte field.
will not be inserted	select the No radio button in the E Port Insert J0 Byte field and/or F Port Insert J0 Byte field.

15 Click **Finish**.

Result: A Confirmation Screen appears that includes a summary of the test access session being established.

16 Click **Yes**.

Result: The test access session is established and a successful completion message appears.

17 Click **OK**.

Result: The successful completion message closes.

18

IF...	THEN...
establishing another test access session	return to Step 2.
another test access session will not be established	click Close . Result: The Test Access Action Selection Screen closes.

END OF STEPS



Task 508: Executing or Releasing a Forced or Manual Protection Switch

Purpose This procedure is used to execute or release a forced or manual protection switch.

A manual protection switch may be initiated on the

- System Controller Complex Protection Group (SCCPG)
- High-Voltage Shelf Controller Protection Group (HVCPG)
- Optical Interface Shelf Controller Protection Group (OICPG)
- Output port 2:1 selector

A forced protection switch may be initiated on an output port 2:1 selector.

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Obtain an OCI.
- Obtain the work instructions for this task and note the assigned AIDs.
- Connect the OCI to the local LambdaRouter™ AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 20).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11- 57).
- Log in to the LambdaRouter™ AOS with a Privilege Code of M4 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11- 50).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to execute or release a forced or manual protection switch.

-
- 1 At the OCI, from the System View Main Menu bar, select

Fault>Protection Switch.

Result: The Switch Protection Screen appears.

-
- 2 In the equipment selection portion of the screen, enter an AID for the shelf, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired shelf.
-

- 3 Click **Select**.

Result: The protection information for the selected entity is displayed in the View Protection Screen.

- 4 View the current status of the selected OCH port or protection group.

Important! When a manual protection switch is operated on an OIS or HVS controller, the newly active OIS or HVS controller should not be addressed by any operations message until three system messages resulting from the controller protection switch have been received. They are as follows:

- **Complete** response to the operate protection switch command
- Report Event **initialization complete** message indicating the newly active OIS or HVS controller
- Report Database Change message indicating the formerly standby OIS or HVS controller has transitioned to active mode

Addressing the OIS or HVS controller before reception of these messages may result in unstable system operations.

- 5

IF...	THEN...
releasing a forced or manual protection switch	select Clear from the Switch Type dropdown list.
executing a forced or manual protection switch	select the protection switch type from the available options in the Switch Type dropdown list.

6 Click **Apply**.

Result: A Confirmation Screen appears.

7 Click **Yes**.

Result: The protection switch is executed or cleared as appropriate.

8 Click **Close** in the Protection Switching Screen.

Result: The Protection Switching Screen closes and the System View appears.

END OF STEPS



Task 509: Extracting and Inserting an NVM Card

Purpose This procedure is used to extract and insert a non-volatile memory (NVM) card.

Before you begin Before beginning this task:

- Obtain a replacement NVM card, if applicable.
- Turn off the audible alarm. If necessary, refer to “Task 522: Turning Off Audible Alarm” (11- 103).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.

Safety precautions Read and understand the following safety precautions before beginning this task.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.



CAUTION

Never try to eject the NVM when the MEM circuit pack LED is green.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to extract and insert an NVM card.

1 Remove the System Controller Shelf cover.

Reference: “Task 518: Removing or Replacing a Shelf Cover” (11-93).

2

IF...	THEN...
extracting an NVM card	continue to Step 4.
inserting an NVM card	continue to Step 6.

3

IF extracting a...	THEN...
PRI MEM NVM card	continue to Step 4.
SEC MEM NVM card	momentarily press the push button located on top of the SEC MEM pack. Result: The NVM card ejects from the SEC MEM pack. Continue to Step 7.

4 Remove the system from service.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11-66)

5 When the PRI MEM circuit pack LED turns from green to red, momentarily press the push button located on top of the PRI MEM circuit pack.

Result: The NVM card ejects from the PRI MEM circuit pack.

6 Put the system into maintenance condition:

From the OCI, at the System View Main Menu bar, select **Fault>Return to/Remove from Service**.

Result: The Return to/Remove from Service Screen appears.

-
- 7 Gently slide the NVM card into the appropriate MEM circuit pack.

IF inserting a...	THEN...
PRI MEM NVM card	return the system to an In-Service (IS) state. Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11- 66)
SEC MEM NVM card	continue to the next step.

-
- 8 Replace the System Controller Shelf cover.

Reference: “Task 518: Removing or Replacing a Shelf Cover” (11-93)

END OF STEPS



Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface

Purpose This procedure is used to log into a LambdaRouter™ AOS from the OCI.

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Have a valid user ID and password on both the OCI and the LambdaRouter™ AOS.
- Ensure that the OCI has been provisioned with the LambdaRouter™ AOS Target Identifier (TID) and IP address. If necessary, refer to “Task 515: Provisioning the Optical Craft Interface with LambdaRouter™ AOS TID and IP Addresses” (11- 2).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 5, “Supporting Tasks Background”
- “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 20)
- “Task 512: Logging in to the Optical Craft Interface” (11- 57)

Task Complete the following steps to log into a LambdaRouter™ AOS from the OCI.

1 Connect the OCI to the local LambdaRouter™ AOS.

Reference: “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 20).

2 Log into the OCI.

Result: The Network View Screen appears.

Reference: “Task 512: Logging in to the Optical Craft Interface” (11- 57).

3

IF...	THEN...
an icon exists in the Network View for the desired LambdaRouter™ AOS	double click on the LambdaRouter™ AOS icon.
an icon does not exist in the Network View for the desired LambdaRouter™ AOS	enter the LambdaRouter™ AOS TID in the Network View TID field, select the System button, then click Connect .

4

IF the LambdaRouter™ AOS...	THEN...
has been provisioned with two IP addresses	the IP Address Selection Screen appears. Continue to the next step.
has been provisioned with one IP address	the Network Element Login Screen appears. Continue to Step 6.

5 Select the IP address to use for the connection and click **OK**.

Result: The Network Element Login Screen appears.

6 Enter a valid User ID and Password then click **OK**.

IF...	THEN...
this is the first login for a new user	a message is displayed prompting for a password change. Enter a new password and click OK . Result: A Legal Notice Screen appears.
this is not the first login for a new user	a Legal Notice Screen appears.

7

Click **OK**.

IF the privilege level for the user login is...	THEN...
M0 or P0	a message is displayed stating that certain screens will be inaccessible due to the privilege level. Click OK . Result: The System View Screen for the selected LambdaRouter™ AOS appears.
anything other than M0 or P0	the OCI System View Screen for the selected LambdaRouter™ AOS appears.

END OF STEPS

☐

Task 511: Logging in to LambdaRouter™ AOS by Cut-Through

Purpose This procedure is used to log in to LambdaRouter™ AOS by cut-through.

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Have a valid user ID and password on both the OCI and the LambdaRouter™ AOS.
- Ensure that the OCI has been provisioned with the LambdaRouter™ AOS Target Identifier (TID) and IP address. If necessary, refer to “Task 515: Provisioning the Optical Craft Interface with LambdaRouter™ AOS TID and IP Addresses” (11- 2).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 20)
- “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11- 50)

Task Complete the following steps to log in to the LambdaRouter™ AOS by cut-through.

1 Connect the Optical Craft Interface to the local LambdaRouter™ AOS.

Reference: “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 20).

2 Log in to the OCI.

Result: The Network View Screen appears.

Reference: “Task 512: Logging in to the Optical Craft Interface” (11- 57).

3

IF...	THEN...
an icon exists in the Network View for the desired LambdaRouter™ AOS	right-click on the LambdaRouter™ AOS icon and select Cut Through from the pop up menu.
an icon does not exist in the Network View for the desired LambdaRouter™ AOS	enter the LambdaRouter™ AOS TID in the Network View TID field, select the Cut-Through button, then click Connect .

4

IF the LambdaRouter™ AOS...	THEN...
has been provisioned with two IP addresses	the IP Address Selection Screen appears. Select the IP address to use for the connection and click OK .
has been provisioned with one IP address	continue to the next step.

5

IF...	THEN...
the Login Screen appears	continue to Step 8.
an error message appears indicating that the connection attempt failed	the TID and IP address may be incorrect or there may be a problem communicating with the LambdaRouter™ AOS. Verify the TID and IP address are correct. Make corrections as necessary. Refer to “Task 515: Provisioning the Optical Craft Interface with LambdaRouter™ AOS TID and IP Addresses” (11- 64). Return to Step 3 once. If the connection fails a second time, continue to the next step.

6 Click the Microsoft Windows **Start** button, then select **Programs> Command Prompt**.

Result: The Command Prompt Window appears.

-
- 7 In the command prompt window, enter **ping** <IP address> to determine if there are communications with the LambdaRouter™ AOS. Replace <IP address> with the IP address of the LambdaRouter™ AOS to which a connection is being attempted.

IF the ping command...	THEN...
indicates there are no communications (a Request Timed Out error is displayed)	contact the local network administrator to clear the problem. When the problem is cleared, return to Step 3.
indicates there are communications (ping reply times are displayed)	the problem may be in the Optical Craft Interface. Call Lucent Technical Support. Stop! End of Task

-
- 8 Enter a valid User ID and Password then click **OK**.

IF...	THEN...
this is the first login for a new user	a message is displayed requesting a password change. Continue to the next step.
this is not the first login for a new user	continue to Step 13.

-
- 9 Click **Yes**.

Result: The Change Expired Password Screen appears.

-
- 10 Enter the password information in the Old Password, New Password, and Confirm Password fields.

Important! The password entered in the New Password and Confirm Password fields must match. Asterisks will be displayed as the passwords are entered.

11 Click **OK**.

Result: A Confirmation Screen appears.

12 Click **Yes**.

Result: The Confirmation Screen closes.

13

IF...	THEN...
the No Listbox File Exist error message appears	click OK to clear the message. The error message is just a warning. The Listbox File is not required. Result: The connection is established and the Cut-Through window appears.
the Cut-Through window appears	the connection is established.

END OF STEPS



Task 512: Logging in to the Optical Craft Interface

Purpose This procedure is used to log in to the Optical Craft Interface (OCI).

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Have a valid user ID and password on the OCI.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to log in to the OCI.

1 Double-click on the OCI icon on the *Microsoft Windows®* desktop.

Result: The OCI Login Screen appears.

2 Enter a valid User ID and Password, then click **OK**.

IF...	THEN...
the login is completed successfully	the Legal Notice Screen appears.
the login fails	verify that the user ID and password are correct and attempt to log in again. If the login has failed a second time, contact the System Administrator. <i>Stop! End of Task.</i>

3 Click **OK**.

Result: The Legal Notice Screen closes and the OCI for LambdaRouter™ AOS Network View Screen appears.

END OF STEPS



Task 513: Logging Out and Disconnecting from LambdaRouter™ AOS

Purpose This procedure is used to log out from a session and disconnect the OCI from the LambdaRouter™ AOS.

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Ensure that the OCI is currently connected to the LambdaRouter™ AOS. If necessary, refer to “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 2).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 20)
- “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11- 50)
- “Task 512: Logging in to the Optical Craft Interface” (11- 57)

Task Complete the following steps to log out and disconnect from a LambdaRouter™ AOS.

1

IF...	THEN...
one or more LambdaRouter™ AOSs are still connected and all tasks are not complete	continue to the next task. <i>Stop! End of Task.</i>
only one LambdaRouter™ AOS is still connected and all tasks are complete	log out and disconnect from the LambdaRouter™ AOS. Reference: “SE 510-1: Disconnecting from One LambdaRouter™ AOS” (11- 60).
several LambdaRouter™ AOSs are connected and all tasks are completed on all of them	log out from all currently connected LambdaRouter™ AOSs. Reference: “SE 510-2: Disconnecting from All LambdaRouter™ AOSs” (11- 61).

IF...	THEN...
all LambdaRouter™ AOSs are disconnected and all tasks are complete	log out of the OCI. Reference: “SE 510-3: Logging Out from the OCI” (11- 62).

2 Disconnect the OCI from the LambdaRouter™ AOS.

Reference: “Task 502: Connecting or Disconnecting the Optical
Craft Interface to or from LambdaRouter™ AOS” (11- 20).

END OF STEPS

**SE 510-1: Disconnecting
from One LambdaRouter™
AOS**

Complete the following steps to log out and disconnect from one
LambdaRouter™ AOS.

1

IF...	THEN...
the OCI Network View is displayed	from the Main Menu bar, select Network Element>Disconnect from NE. Result: The NE Disconnect List appears. Continue to the next step.
the OCI System View is displayed	from the Main Menu bar, select File>NE Disconnect. Result: A Confirmation Screen appears. Continue to Step 3.

2 Select the LambdaRouter™ AOS to be disconnected and click
Disconnect.

Result: A Confirmation Screen appears.

3 Click **Yes.**

Result: The OCI is disconnected from the selected LambdaRouter™ AOS and the OCI Network View appears.

END OF STEPS

**SE 510-2: Disconnecting
from All LambdaRouter™
AOSs**

Complete the following steps to log out and disconnect from all
LambdaRouter™ AOSs.

-
- 1** At the OCI, from the Network View Main Menu bar, select
Network Element>Disconnect from All NEs.

Result: A Confirmation Screen displaying a list of all currently
connected LambdaRouter™ AOSs appears.

-
- 2** Click **Yes**.

Result: The OCI is disconnected from all LambdaRouter™ AOSs
and the OCI Network View appears.

END OF STEPS

**SE 510-3: Logging Out
from the OCI**

Complete the following steps to log out from the OCI.

-
- 1** At the OCI, from the Network View Main Menu bar, select **File>Exit**.

Result: A Confirmation Screen appears.

-
- 2** Click **Yes**.

Result: The OCI application closes and the Windows desktop appears.

END OF STEPS



Task 514: Logging Out of a Cut-Through Session

Purpose This procedure is used to log out of a cut-through session.

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Have a valid user ID and password on both the OCI and the LambdaRouter TM AOS.
- Ensure that a cut-through session is in effect.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to log out of a cut-through session.

- 1 Enter CANC-USER:<tid>:logoff; in the TL1 Command Entry Field, or select the CANC-USER command from the Cut-Through Window List Box and edit the command line to include the LambdaRouter TM AOS TID as appropriate. Click **Send**.

Result: The login session is terminated.

- 2 At the OCI Cut-Through Main Menu, select **File>Exit**.

Result: A Confirmation Screen appears.

- 3 Click **Yes**.

Result: The Cut-Through Screen closes and the Network View appears.

END OF STEPS



Task 515: Provisioning the Optical Craft Interface with LambdaRouter™ AOS TID and IP Addresses

Purpose This procedure is used to add, modify, or delete a LambdaRouter™ AOS Target Identifier (TID) and IP address to or from the OCI.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ AOS.
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Obtain the work instructions for this task.
- Log into the OCI with a Privilege Code of S3; use “Task 512: Logging in to the Optical Craft Interface” (11- 57). It is not necessary to connect to a LambdaRouter™ AOS.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to provision the OCI with a LambdaRouter™ AOS TID and IP address.

-
- 1 At the OCI, from the System View Main Menu bar, select **Administration>NE Name/Address Administration**.

Result: The NE Name/Address Administration Screen appears.

- 2

IF...	THEN...
entering a new LambdaRouter™ AOS name and IP address	click Add . Result: The Add IP Address Screen appears.

IF...	THEN...
modifying an existing LambdaRouter™ AOS name and IP address	click the down arrow beside the TID field and select the TID to be modified from the list that is displayed. Click Modify . Result: The Modify IP Address Screen appears with the TID and IP Address fields populated with the current values for the selected LambdaRouter™ AOS.
deleting an existing LambdaRouter™ AOS name and IP address	click the down arrow beside the TID field and select the TID to be deleted from the list that is displayed. Click Delete . Result: A Confirmation Screen appears.

3

IF...	THEN...
adding or modifying a LambdaRouter™ AOS name and IP address	enter the required information in the TID and/or IP Address fields in dotted decimal format and click Apply . Result: A Successful Completion Message appears. The TID and IP Address for the LambdaRouter™ AOS are saved locally on the OCI. The OCI can now access the LambdaRouter™ AOS.
deleting a LambdaRouter™ AOS name and IP address	click Yes . Result: A Successful Completion Message appears.

4 Click OK.

Result: The Successful Completion Message closes and the Network View appears.

END OF STEPS



Task 516: Removing Equipment from and Returning Equipment to Service

Purpose Removing equipment from and returning equipment to service is a matter of changing the primary state of the device. This procedure is used to change the primary state of the following LambdaRouter TM AOS equipment:

- system
- port units (OXI, OXI-4A13, OXI-4A15, OXI-10GC, and OXI-2GC)
- optical channel (OCH) port
- Personality Module
- SWIP maintenance group (SWMG)
- Switch Interface Point (SWIP)

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter TM AOS.
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Obtain the work instructions for this task.
- Log into the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11- 57).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11- 57).
- Log in to the LambdaRouter TM AOS with a Privilege Code of P3 from the OCI; use “Task 510: Logging in to LambdaRouter TM AOS from the Optical Craft Interface” (11- 50).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to change the primary state of the LambdaRouter™ AOS equipment.

1

IF changing the primary state of...	THEN...
the system	go to “SE 513-1: Changing the primary state of the system” (11- 68).
a port unit or OCH port	go to “SE 513-2: Changing the primary state of a port unit or OCH port” (11- 70).
an SWMG	go to “SE 513-3: Changing the primary state of an SWMG” (11- 72).
a Personality Module	go to “SE 513-4: Changing the primary state of a Personality Module” (11- 74).

END OF STEPS

SE 513-1: Changing the primary state of the system

Complete the following steps to change the primary state of the system.

-
- 1** At the OCI System View select **Fault>Return to/Remove from Service** from the Main Menu bar.

Result: The Remove from/Return to Service Screen appears.

- 2** From the Equipment Selection list on the left side of the screen, select the System, or enter the AID for the System, and click **Select Target**.

Result: The current primary state for the System appears.

- 3**

IF...	THEN...
removing the System from service	select Remove From Service from the Action drop-down list and click Apply . Result: A Service Affecting Warning appears.
returning the System to service	select Return To Service from the Action drop-down list and click Apply . Result: A Service Affecting Warning appears.

- 4** Click **Yes**.

Result: The Service Affecting Warning closes.

5

IF the System was...	THEN...
removed from service	click Close . Result: The Remove from/Return to Service Screen closes.
returned to service	the system restarts and a Communication Failure Message appears. Click OK and when the system restart has completed log back into the LambdaRouter™ AOS to perform any additional provisioning tasks. Reference: “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11- 50).

END OF STEPS

SE 513-2: Changing the primary state of a port unit or OCH port

Complete the following steps to change the primary state of a port unit or OCH port. All ports on a port unit must be removed from service before the port unit itself may be removed from service.

- 1 At the OCI System View select **Fault>Return to/Remove from Service** from the Main Menu bar.

Result: The Remove from/Return to Service Screen appears.

- 2 From the Equipment Selection list on the left side of the screen, enter an AID for the port unit or OCH port, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment.

- 3 Click **Select Target**.

Result: The current primary state for the equipment appears.

4

IF...	THEN...
removing the port unit or OCH port from service	select Remove From Service from the Action drop-down list and click Apply . Result: A Service Affecting Warning appears.
returning the port unit or OCH port to service	select Return To Service from the Action drop-down list and click Apply . Result: A Service Affecting Warning appears.

- 5 Click **Yes**.

Result: A successful completion message appears.

- 6 Click **OK**.

Result: The successful completion message closes.

7

IF the primary state of another port unit or OCH port...	THEN...
will be changed	return to Step 2.
will not be changed	click Close . Result: The Remove from/Return to Service Screen closes.

END OF STEPS

SE 513-3: Changing the primary state of an SWMG

Complete the following steps to change the primary state of an SWMG. An SWMG can only be removed from service if the other SWMG is in-service.

-
- 1 At the OCI System View select **Fault>Return to/Remove from Service** from the Main Menu bar.

Result: The Remove from/Return to Service Screen appears.

- 2 From the Equipment Selection list on the left side of the screen, enter an AID for the SWMG, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the SWMG.
-

- 3 Click **Select Target**.

Result: The current primary state for the equipment appears.

- 4

IF...	THEN...
removing the SWMG from service	select Remove From Service from the Action drop-down list and click Apply . Result: A Service Affecting Warning appears.
returning the SWMG to service	select Return To Service from the Action drop-down list and click Apply . Result: A Service Affecting Warning appears.

- 5 Click **Yes**.

Result: A successful completion message appears.

- 6 Click **OK**.

Result: The successful completion message closes.

7

IF the primary state of another SWMG...	THEN...
will be changed	return to Step 2 of this Supporting Element.
will not be changed	click Close . Result: The Remove from/Return to Service Screen closes.

END OF STEPS

SE 513-4: Changing the primary state of a Personality Module

Complete the following steps to change the primary state of a Personality Module.

-
- 1 At the OCI System View select **Fault>Return to/Remove from Service** from the Main Menu bar.

Result: The Remove from/Return to Service Screen appears.

-
- 2 From the Equipment Selection list on the left side of the screen, enter an AID for the Personality Module, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment.

-
- 3 Click **Select Target**.

Result: The current primary state for the equipment appears.

4

IF...	THEN...
removing the Personality Module from service	select Remove From Service from the Action drop-down list and click Apply . Result: A Service Affecting Warning appears.
returning the Personality Module to service	select Return To Service from the Action drop-down list and click Apply . Result: A Service Affecting Warning appears.

5 Click **Yes**.

Result: A successful completion message appears.

6 Click **OK**.

Result: The successful completion message closes.

7

IF the primary state of another Personality Module...	THEN...
will be changed	return to Step 2.
will not be changed	click Close . Result: The Remove from/Return to Service Screen closes.

END OF STEPS



Task 517: Removing, Inserting, or Replacing a Circuit Pack

Purpose This procedure is used to remove, insert, or replace a circuit pack.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™, an electrostatic discharge (ESD) strap, and any type screwdriver.
- Turn off the audible alarm. If necessary, refer to “Task 522: Turning Off Audible Alarm” (11- 103).
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local LambdaRouter™ AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 20).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11- 57).
- Log in to the LambdaRouter™ AOS with a Privilege Code of M1 and P3 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11- 50).

Safety precautions Read and understand the following safety precautions before beginning this task.



CAUTION

Use a static ground wrist strap whenever handling circuit packs or working on a LambdaRouter™ AOS system to prevent electrostatic discharge damage to sensitive components.



CAUTION

Replacing the Port Units or HVDAC circuit packs may be service-affecting if they are carrying traffic. If possible, reconfigure port traffic to spare ports. Circuit pack replacement must be scheduled and affected customers should be notified of service interruption. Removing a DCC circuit pack will log out any user currently logged in through that DCC circuit pack.

Related information

For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11- 44)
- “Task 509: Extracting and Inserting an NVM Card” (11- 47)
- “Task 516: Removing Equipment from and Returning Equipment to Service” (11- 66)
- “Task 518: Removing or Replacing a Shelf Cover” (11- 93)

Initialization Intervals Approximate initialization intervals for each entity are shown in the following table.

Circuit Pack	Initialization Interval
RC	10 seconds
DCC	2 minutes
EI	10 seconds
HSWIC	5 minutes
HVDAC	10 seconds
OSWIC	5 minutes
Port Unit	10 seconds
PRI	10 seconds Excludes boot time for an inserted NVM.
SEC	10 seconds Excludes boot time for an inserted NVM.
SYS50D	5 minutes
PMOD	5-10 seconds
RC/RIP	15 minutes

Task Complete the following steps to remove, insert, or replace a circuit pack.

- 1 Remove the shelf cover.

Reference: “Task 518: Removing or Replacing a Shelf Cover” (11-93)

- 2

IF a circuit pack is being...	THEN...
removed from the LambdaRouter TM AOS	go to “SE 514-1: Removing a circuit pack” (11- 80).
inserted into the LambdaRouter TM AOS	go to “SE 514-2: Inserting a circuit pack” (11- 82).

IF a circuit pack is being...	THEN...
replaced in the LambdaRouter [™] AOS	perform “SE 514-1: Removing a circuit pack” (11- 80) and then “SE 514-2: Inserting a circuit pack” (11- 82).

3 Replace the shelf cover.

Reference: “Task 518: Removing or Replacing a Shelf Cover” (11-93)

END OF STEPS

SE 514-1: Removing a circuit pack

Complete the following steps to remove a circuit pack.

1

IF the circuit pack is a...	THEN...
SYS50D, RC, EI, OSWIC, or HSWIC	continue to the next step.
PRI MEM, SEC MEM, DCC, or HVDAC	continue to Step 5.
Port Unit	continue to Step 8.
DCC or HVDAC	continue to Step 6.

2 At the OCI, from the System View Main Menu bar, select **View>Protection**.

Result: The Equipment Selection Screen appears.

3 In the equipment selection portion of the screen, enter an AID for the shelf, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired shelf.

4 Click **Select**.

Result: The protection information for the selected entity is displayed in the View Protection Screen.

5 Verify that the System Controller Complex (SYS50D, RC, or EI circuit pack), HSWIC, or OSWIC are not currently active before removal.

IF the protection group...	THEN...
is not currently active	continue to Step 7.
is currently active	force a protection switch to the associated standby protection group then continue to the next step. Reference: “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11- 44).

-
- 6 Eject the NVM card.

Reference: “Task 509: Extracting and Inserting an NVM Card” (11- 47)

- 7 Grasp the latch on the circuit pack faceplate and lift gently to unseat the circuit pack. Slide the circuit pack out of the slot.

Stop! End of Task.

- 8 Before provisioning a Port Unit out-of-service, all input ports and output ports must be provisioned out-of-service.

Reference: “Task 516: Removing Equipment from and Returning Equipment to Service” (11- 66)

- 9 Detach all of the optical fibers connected at the front of the Port Unit.
-

- 10 Place a dust cap over the end of each optical fiber.
-

- 11 Grasp the latch on the circuit pack faceplate and lift gently to unseat the circuit pack. Slide the circuit pack out of the slot.

END OF STEPS

SE 514-2: Inserting a circuit pack

Complete the following steps to insert a circuit pack into an empty slot.

1

IF the circuit pack is a...	THEN...
SYS50D, RC, EI, PRI MEM, SEC MEM, DCC, OSWIC, HSWIC, or HVDAC	continue to the next step.
Port Unit	continue to Step 3.

2 Insert the appropriate circuit pack into the slot and close the latch.

IF the circuit pack is a...	THEN...
SYS50D, RC, EI, DCC, OSWIC, HSWIC, or HVDAC	no action is required. <i>Stop! End of Task.</i>
PRI MEM or SEC MEM	insert the appropriate NVM card. Go to “Task 509: Extracting and Inserting an NVM Card” (11- 47). <i>Stop! End of Task.</i>

Result: The newly installed circuit pack takes up to five minutes to initialize. While the circuit pack is initializing, the green LED blinks. When initialization is complete, the red LED is off and the green LED lights steadily.

3

IF the circuit pack is an...	THEN...
OXI-10GC or OXI-2GC circuit pack	continue to the next step.
OXI	continue to Step 29.

4 Insert the OEO circuit pack into the slot. Apply even pressure to the latch at the top of the circuit pack and the faceplate at the bottom of the circuit pack. This allows the optical connector on the circuit pack to plug into the optical connector on the backplane in a straight-on manner rather than at an angle. Connection at an angle could result in a faulty connection.

-
- 5 Each input and output port on the newly inserted circuit pack must be tested to determine whether it can support a cross-connection. This is accomplished by establishing a cross-connect loopback between the port being tested and any appropriate idle port. If there is an appropriate idle port on the circuit pack being tested, both ports can be tested by one cross-connect loopback. Test the input ports first. At the OCI Shelf View, double-click on an input port.

Result: The View Och Details Screen appears.

The Cross-Connection Status field indicates whether the port is idle. The Input Port Auto Alarm Monitoring field indicates whether AUTOMODE is enabled.

6

IF...	THEN...
the input port is idle, that is, no cross-connection is assigned	set up a cross-connect loopback using this input port and any output port that is idle. Go to “Task 506: Establishing a Cross-Connect Loopback” (11- 36)
the input port is not idle, that is, a cross-connection is assigned and AUTOMODE is enabled	set up a duplex <i>forced</i> cross-connect loopback using this input port and any output port that is idle. Go to “Task 506: Establishing a Cross-Connect Loopback” (11- 36).
the input port is not idle, that is, a cross-connection is assigned and AUTOMODE is disabled	continue to Step 23.

- 7 Remove the fiber from the input port.
-
- 8 Attach an optical power source, such as an HP8140A, to the input port and generate a signal.

-
- 9** At the OCI Shelf View, double-click on the output port associated with the input port being tested.

Result: The View Och Details Screen appears.

The Side 0 Status and Side 1 Status fields indicate whether a signal is detected. Valid values for this field are *DOS*, Detection of Signal, or *LOS*, Loss of Signal.

10

IF...	THEN...
both Side 0 and Side 1 Status are LOS	the circuit pack was probably inserted in a faulty manner and the backplane connector must be reset. First, release the loopback, remove the optical power source, and reattach the fiber to the input port. Then go to “SE 514-3: Resetting the backplane connector” (11- 91). Return to Step 4 only once. If the Side 0 Status and Side 1 Status fields still indicate LOS, contact Lucent Technical Support. <i>Stop! End of Task.</i>
Side 0 or Side 1 Status is DOS	release the loopback, remove the optical power source, and reattach the fiber to the input port. Repeat Step 5 through Step 10 until all input ports are tested. Continue to the next step.

-
- 11** Test the rest of the output ports on the newly inserted OXI-10GC or OXI-2GC circuit pack. At the OCI Shelf View, double-click on an output port.

Result: The View Och Details Screen appears.

The Cross-Connection Status field indicates whether the port is idle. The Input Port Auto Alarm Monitoring field indicates whether AUTOMODE is enabled.

12

IF...	THEN...
the output port is idle, that is, no cross-connection is assigned	set up a cross-connect loopback using this output port and any input port that is idle. Go to “Task 506: Establishing a Cross-Connect Loopback” (11- 36)
the output port is not idle, that is, a cross-connection is assigned and AUTOMODE is enabled on the associated input port	delete the cross-connection. Go to “Task 504: Deleting a Cross-Connection” (11- 30). Set up a cross-connect loopback using this output port and any input port that is idle. Go to “Task 506: Establishing a Cross-Connect Loopback” (11- 36)
the output port is busy, that is, a cross-connection is assigned and AUTOMODE is disabled on the associated input port	continue to Step 17.

-
- 13** Remove the fiber from the input port associated with the output port being tested.

-
- 14** Attach an optical power source, such as an HP8140A, to the input port and generate a signal.

-
- 15** At the OCI Shelf View, double-click on the output port being tested.

Result: The View Och Details Screen appears.

The Side 0 Status and Side 1 Status fields indicate whether a signal is detected. Valid values for these fields are *DOS*, Detection of Signal, or *LOS*, Loss of Signal.

16

IF...	THEN...
the Side 0 and Side 1 Status are LOS	the circuit pack was probably inserted in a faulty manner and the backplane connector must be reset. Release the loopback, remove the optical power source from the input port, and reattach the fiber. If necessary, re-establish the cross-connection. Go to “SE 514-3: Resetting the backplane connector” (11- 91). Then return to Step 4 only once. If the Side 0 Status and Side 1 Status fields still indicate LOS, contact Lucent Technical Support. <i>Stop! End of Task.</i>
the Side 0 or Side 1 Status is DOS	release the loopback, remove the optical power source, and reattach the fiber to the input port. If necessary, re-establish the cross-connection. Return to Step 11 until remaining output ports are tested. Then continue to Step 30.

- 17** At the OCI System View, select **Fault> NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed.

18

IF...	THEN...
the Alarm List displays a critical LOS alarm for the output port being tested	delete the cross-connection. Go to “Task 504: Deleting a Cross-Connection” (11- 30). Set up a cross-connect loopback using this output port and any input port that is idle. Go to “Task 506: Establishing a Cross-Connect Loopback” (11- 36)
the Alarm List does not display a critical LOS alarm for the output port being tested	return to Step 11 and repeat until all remaining output ports are tested. Then continue to Step 30.

-
- 19** Remove the fiber from the input port associated with the output port being tested.
-

- 20** Attach an optical power source, such as an HP8140A, to the input port and generate a signal.
-

- 21** At the OCI Shelf View, double-click on the output port being tested.

Result: The View Och Details Screen appears.

The Side 0 Status and Side 1 Status fields indicate whether a signal is detected. Valid values for this field are *DOS*, Detection of Signal, or *LOS*, Loss of Signal.

22

IF...	THEN...
both Side 0 and Side 1 Status are LOS	the circuit pack was probably inserted in a faulty manner and the backplane connector must be reset. First, release the loopback, remove the optical power source, and reattach the fiber to the input port. If necessary, re-establish the cross-connection. Then go to “SE 514-3: Resetting the backplane connector” (11-91). Return to Step 4 only once. If the Side 0 and Side 1 Status is still LOS, contact Lucent Technical Support. <i>Stop! End of task.</i>
Side 0 or Side 1 Status is DOS	release the loopback, remove the optical power source, and reattach the fiber to the input port. If necessary, re-establish the cross-connection. Return to Step 11 and repeat until all remaining output ports are tested. Continue to Step 30.

- 23** At the OCI System View, select **Fault> NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed.

24

IF...	THEN...
the Alarm List displays an LOS alarm for the input port being tested	set up a duplex <i>forced</i> cross-connect loopback using this input port and any output port that is idle. Go to “Task 506: Establishing a Cross-Connect Loopback” (11- 36)
the Alarm List does not display an LOS alarm for the input port being tested	continue to Step 27.

25 Remove the fiber from the input port associated with the output port being tested.

26 Attach an optical power source, such as an HP8140A, to the input port and generate a signal.

27 At the OCI Shelf View, double-click on the associated output port.

Result: The View Och Details Screen appears.

The Side 0 Status and Side 1 Status fields indicate whether a signal is detected. Valid values for this field are *DOS*, Detection of Signal, or *LOS*, Loss of Signal.

28

IF...	THEN...
the Side 0 and Side 1 Status are LOS	the circuit pack was probably inserted in a faulty manner and the backplane connector must be reset. If necessary, release the loopback cross-connection, remove the optical power source, and reattach the fiber to the input port. Go to “SE 514-3: Resetting the backplane connector” (11- 91). Repeat Step 4 only once. If Side 0 and Side 1 Status are still LOS, contact Lucent Technical Support. <i>Stop! End of task.</i>

IF...	THEN...
the Side 0 or Side 1 Status is DOS	if necessary, release the loopback cross-connection, remove the optical power source, and reattach the fiber to the input port. Return to Step 5 and repeat until all input ports are tested. Then continue to Step 11 and repeat until remaining output ports are tested.

- 29 Insert the OXI circuit pack; then clean and attach the optical fibers (up to eight) to the appropriate ports on the front of the circuit pack.

Reference: “Task 501: Cleaning LC and MPX Connectors” (11- 9).

- 30 If necessary, the slot/circuit pack and its associated ports can be provisioned in service.

IF the circuit pack and ports...	THEN...
are to be provisioned in service	continue to the next step.
are to stay out of service or already in service	no action is needed. <i>Stop! End of Task.</i>

- 31 At the OCI, from the System View Main Menu bar, select **Configuration>Provision**.

Result: The Equipment Selection Screen appears.

- 32 Select the slot/circuit pack from the Equipment Selection Screen; then click **Provision**.

Result: The Provision OXI Slot Screen appears.

- 33 Select **IS** in the Primary State field then click **Apply**.

Result: The Confirmation Screen appears.

34 Click **Yes**.

Result: The Confirmation Screen closes.

35 Select the first existing input or output OCH port on the slot/circuit pack from the Equipment Selection Screen.

Result: The Provision Parameters for Equipment Screen appears populated with information for the selected port.

36 Provision the port Primary State to **IS** then click **Apply**.

Result: The Confirmation Screen appears.

37 Click **Yes**.

Result: The Confirmation Screen closes.

38

IF...	THEN...
this port is not the last port on the slot/circuit pack object	select the next existing OCH port on the slot/circuit pack from the Equipment Selection Screen and return to Step 36.
this port is the last port on the slot/circuit pack object	click Close at the bottom of the window after the confirmation screen closes.

E N D O F S T E P S

SE 514-3: Resetting the backplane connector

Reset the backplane connector prior to inserting a OXI-10GC or OXI-2GC circuit pack.

.....

- 1 Remove the circuit pack.

Reference: “SE 514-1: Removing a circuit pack” (11- 80)

.....

- 2 Go to the backplane and remove and BP jumpers and dust caps.
-

- 3 With uniform force, lightly press the receptacle from the bottom with a screwdriver towards the inside of the shelf until it snaps into position. Refer to “SE 514-4: Backplane receptacle figure” (11- 92). The receptacle is now reset.
-

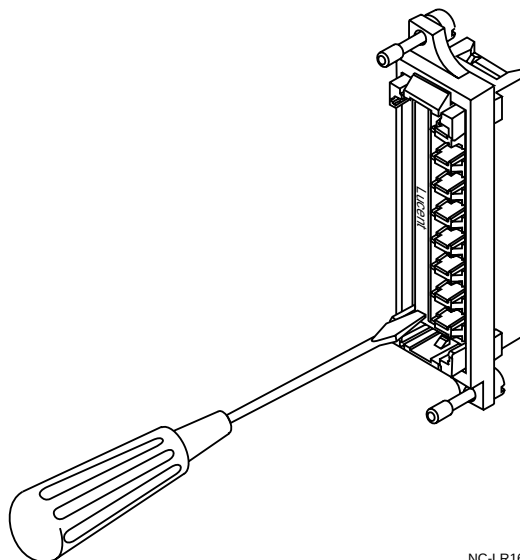
- 4 Reinstall the BP jumpers and dustcaps.

.....

E N D O F S T E P S

.....

**SE 514-4: Backplane
receptacle figure**



NC-LR164

Task 518: Removing or Replacing a Shelf Cover

Purpose This procedure is used to remove or replace a shelf cover.

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Obtain a screwdriver.

Safety precautions Read and understand the following safety precaution before beginning this task.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information For related information, see

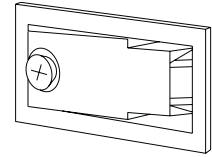
- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 5, “Supporting Tasks Background”

Task Complete the following steps to remove or replace the shelf cover.

1

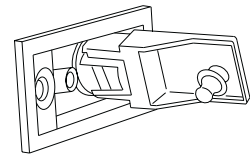
IF the cover is being...	THEN...
removed	continue with Step 2.
replaced	continue with Step 7.

2 Locate the two ¼-turn fasteners at the bottom of the shelf cover.



-
- 3 Use the appropriate size screwdriver to rotate the retaining screws counterclockwise approximately $\frac{1}{4}$ -turn until the shelf cover fasteners are released.
-

- 4 Pull the shelf cover fasteners out and rotate the fasteners $\frac{1}{4}$ -turn counterclockwise.
-



-
- 5 Grasp the bottom of the cover and pull it forward until it is horizontal (rotated 90 degrees from the closed position).
-

- 6 Lift the pivot pins located at the top of the cover, push back, and lift up on the pins again to remove the cover from the shelf; then lift the cover up until it is free from the shelf framing.

Stop! End of Task.

- 7 Position the pivot pins located at the top of the cover under the flange on the shelf framing.
-

- 8 Close the cover and rotate the two shelf cover fasteners $\frac{1}{4}$ -turn clockwise and push back into the locked position.

-
- 9** Use the appropriate size screwdriver to rotate the retaining screws clockwise approximately $\frac{1}{4}$ -turn until the shelf cover fasteners are secured.

END OF STEPS



Task 519: Replacing a Fan Filter

Purpose This procedure is used to replace a Fan Filter every six months as part of routine fan maintenance or when instructed as part of a trouble-clearing task.

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Have a replacement Fan Filter on hand.
- Remove the shelf cover. If necessary, refer to “Task 518: Removing or Replacing a Shelf Cover” (11- 93). Be sure to replace it when the task is complete.

Safety precautions Read and understand the following safety precaution before beginning this task.



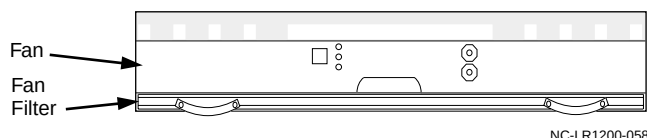
CAUTION

Use a static ground wrist strap whenever handling circuit packs or working on a LambdaRouter™ AOS system to prevent electrostatic discharge damage to sensitive components.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 5, “Supporting Tasks Background”
- “Task 518: Removing or Replacing a Shelf Cover” (11- 93)

Fan Unit Figure The following figure shows the location of the filter.



Task Complete the following steps to replace a Fan Filter.

.....

1 Remove the shelf cover.

Reference: “Task 518: Removing or Replacing a Shelf Cover” (11-93).

.....

2 Remove the Fan Filter by grasping the two pull tabs and pulling the Fan Filter out of the shelf.

Reference: See “Fan Unit Figure” (11-96).

.....

3 Insert the replacement Fan Filter into the shelf so that the two pull tabs are positioned at the front of the shelf.

.....

4 Replace the shelf cover.

Reference: “Task 518: Removing or Replacing a Shelf Cover” (11-93).

.....

5 Discard the used Fan Filter.

.....

END OF STEPS

.....



Task 520: Replacing a User Panel

Purpose This procedure is used to replace a User Panel.

Before you begin Before beginning this task:

- Obtain a replacement User Panel.
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Have on hand a replacement User Panel.

Safety precautions Read and understand the following safety precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 5, “Supporting Tasks Background”
- “Task 518: Removing or Replacing a Shelf Cover” (11- 93)

Task Complete the following steps to replace a User Panel.

1 Remove the shelf front cover.

Reference: “Task 518: Removing or Replacing a Shelf Cover” (11-93).

2 Remove two screws from the User Panel faceplate.

-
- 3 Pull on the faceplate to slide the User Panel assembly free from the backplane

Important! Prolonged absence of the User Panel may distort air flow and cause a fan alarm.

-
- 4 Insert a replacement User Panel known to be in good condition into the now vacated User Panel slot until secure contact is made with the backplane.

-
- 5 Attach the two screws to the User Panel faceplate.

-
- 6 Replace the associated shelf front cover.

Reference: “Task 518: Removing or Replacing a Shelf Cover” (11-93).

END OF STEPS



Task 521: Resetting a System, Shelf, or Circuit Pack

Purpose This procedure is used to reset an active LambdaRouter TM AOS system, optical interface shelf (OIS), high-voltage shelf (HVS), DCC, or Optical Cross-Connect Interface circuit pack.

Before you begin Before beginning

- Obtain an OCI.
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Connect the OCI to the local LambdaRouter TM AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter TM AOS” (11- 20).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11- 57).
- Log in to the LambdaRouter TM AOS with a Privilege Code of M4 or S4 from the OCI; use “Task 510: Logging in to LambdaRouter TM AOS from the Optical Craft Interface” (11- 50).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 4, “Alarm Messages and Trouble-Clearing Tasks Background”

Task Complete the following steps to reset a LambdaRouter TM AOS system, OIS, HVS, or DCC circuit pack.

1

IF resetting a...	THEN...
DCC or RIP circuit pack, port unit, or Personality Module	at the Optical Craft Interface, from the System View Main Menu Bar, select Fault>Reset>Circuit Pack . Result: The Reset Circuit Pack Screen appears. Continue to the next step.
optical interface shelf or high-voltage shelf	at the Optical Craft Interface, from the System View Main Menu Bar, select Fault>Reset>Shelf . Result: The Reset Shelf Screen appears. Continue to the next step.

IF resetting a...	THEN...
system	at the Optical Craft Interface, from the System View Main Menu Bar, select Fault>Reset>System. Result: A Service Affecting Warning appears. Continue to Step 4.

-
- 2 Enter an AID for the desired DCC or RIP circuit pack, port unit, Personality Module, optical interface shelf, or high-voltage shelf, or navigate the equipment list by clicking on the plus sign (+) next to each entity to highlight the desired equipment.
-

- 3 Click **Select**.

Result: A Service Affecting Warning appears.

- 4 Click **Yes**.

IF resetting a...	THEN...
system or the DCC circuit pack carrying the active login session	the reset terminates the Optical Craft Interface login session and a Communication Failure Message appears. Continue to the next step.
shelf, RIP circuit pack, port unit, Personality Module, or the DCC circuit pack that is not carrying the active login session	this procedure is complete. <i>Stop! End of Task.</i>

- 5 Click **OK**.

Result: The Optical Craft Interface System View closes and the Network View appears.

-
- 6 Log back into the network element when the reset has completed to perform any additional provisioning tasks.

Reference: “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11- 50).

END OF STEPS



Task 522: Turning Off Audible Alarm

Purpose This procedure is used to turn off the audible alarm. Alarm Cutoff (ACO) buttons are provided to silence the audible office alarms. ACO buttons are located on the System Controller Shelf (SCS), User Panel, both High-Voltage Shelf (HVS) User Panels, and both Optical Interface Shelf (OIS) User Panels.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ AOS and an electrostatic discharge (ESD) strap.
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local LambdaRouter™ AOS; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11- 20).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11- 57).
- Log in to the LambdaRouter™ AOS with a Privilege Code of M3 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11- 50).

Safety precautions Read and understand the following safety precaution before beginning this task.



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 5, “Supporting Tasks Background”
- “Task 520: Replacing a User Panel” (11- 98)

Task Complete the following steps to turn off an audible alarm.

- 1 Remove the shelf cover.

Reference: “Task 518: Removing or Replacing a Shelf Cover” (11-93)

- 2 Press the Alarm Cutoff (ACO) button on any User Panel.

IF...	THEN...
the audible alarm is silenced and the ACO LED is illuminated	the system has successfully entered into the ACO condition. <i>Stop! End of Task.</i>
the audible alarm is still active	continue to the next step.

- 3 Check the current Alarm List to make sure that no new alarm was generated in the last few seconds. A newly generated alarm returns the system to a normal audible alarm condition. At the OCI NE View, select **Fault>NE Alarm List** from the Main Menu bar.

Result: The current alarms are listed.

- 4

IF...	THEN...
there is a newly generated alarm	return to Step 2.
there is no newly generated alarm	continue to the next step.

5 Press the ACO button on a different User Panel.

IF...	THEN...
the audible alarm is silenced and the ACO LED is illuminated.	the system has successfully entered into the ACO condition. Replace the User Panel on any shelf with an ACO button that was depressed and failed to silence the audible alarm. Go to “Task 520: Replacing a User Panel” (11- 98). <i>Stop! End of Task.</i>
the audible alarm is still active	use the OCI to turn off the audible alarm. Continue to the next step.

6 Use the OCI to silence the local audible office alarms. From the System View Main Menu bar, select **Fault>Alarm Cut-Off**.

IF...	THEN...
the audible alarm is silenced and the ACO LED is illuminated	the system has successfully entered into the ACO condition. Replace any User Panel that has a failed ACO button. Go to “Task 520: Replacing a User Panel” (11- 98).
the audible alarm is still active	contact Lucent Technical Support.

END OF STEPS





12 Recovery Tasks

Overview

Purpose This chapter documents tasks that are not associated with alarm messages.

Contents This chapter contains the following tasks:

Task 600: Establishing Communication Between the System and the Optical Craft Interface	12 - 2
Task 601: Recovering from Communication Failure Between Optical Craft Interface and System	12 - 6
Task 602: Recovering from Failure of Both DCCs	12 - 8
Task 603: Recovering from Failure of Both SYS50Ds	12 - 11
Task 604: Recovering from LED Failure	12 - 15
Task 605: Recovering from Shelf Power Failure	12 - 19
Task 606: Recovering from System Power Failure	12 - 21



Task 600: Establishing Communication Between the System and the Optical Craft Interface

Purpose Use this procedure to establish communication between the Optical Craft Interface (OCI) and the system.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ AOS.
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Verify that the cable connecting the OCI to the network element and its connections are in good condition.
- Make sure that the TID and IP address of the network element is available if the information has not been provisioned in the OCI.
- Have the NE login ID and password available.
- Verify that the OCI is configured to communicate through a LAN with the NE. If necessary, contact the local data network administrator for the appropriate process.
- Make sure that the network element is up and running by observing illuminated green LEDs on the Data Communications Controller (DCC) circuit pack and all circuit packs of the System Controller Complex

Safety precautions Read and understand the following safety precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 5, “Supporting Tasks Background”

- “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-20)
- “Task 512: Logging in to the Optical Craft Interface” (11-57)
- “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-50)
- “Task 515: Provisioning the Optical Craft Interface with LambdaRouter™ AOS TID and IP Addresses” (11-64)

Task Complete the following steps to establish communication between the system and the OCI.

- 1 Connect the OCI to the Network Element. Go to “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-20).

- 2 Log in to the OCI. Go to “Task 512: Logging in to the Optical Craft Interface” (11-57).

IF...	THEN...
the network element TID is included in the OCI Network Navigator (shown as an icon)	select the network element icon. Click Connect . Then continue to Step 6.
the network element TID does not appear in OCI Network Navigator (not shown as an icon)	continue to the next step.

- 3 Check the network element IP address information. At the OCI, select **Network View>Admin>NE Name/IP Address Admin**.

IF...	THEN...
the network element is not in the list	provision the network element IP Address. Go to “Task 515: Provisioning the Optical Craft Interface with LambdaRouter™ AOS TID and IP Addresses” (11-64). Continue to the next step.
the network element is in the list	continue to the next step.

-
- 4 Enter the TID in the TID field in the Network View window. Click **Connect**.
-

5

IF...	THEN...
the Lucent Proprietary message displays	the login is successful. An icon of the network element appears at the Established NE Association panel. <i>Stop! End of Task.</i>
the login failed message appears with the NE Login Screen indicating an invalid default login ID and password	continue to the next step.
the login failed message appears with the NE Login Screen indicating the maximum number of login attempts has been exceeded	the login failed and no further steps can be taken until the network element condition is cleared. Contact the local data network administrator for support. <i>Stop! End of Task.</i>
the login failed message appears with the NE Login Screen indicating all resources busy	log in to the other DCC. If that fails, no further steps can be taken until the network element condition is cleared. Wait for 5 minutes and return to Step 2.
an error message from Windows NT, or a Windows Application appears (as indicated by the lack of a OCI title)	there may be a PC or LAN configuration problem. Contact Lucent Technical Support. <i>Stop! End of Task.</i>
the login failed message appears	continue to Step 7.
there is no response from the system	continue to the next step.

- 6 The network element has rejected the login request because of an incorrect login ID and password. Enter the correct NE User ID and Password once more.

IF...	THEN...
the Lucent Proprietary message displays	the login is successful. An icon of the network element appears at the Established NE Association panel. <i>Stop! end of Task.</i>
the login is not successful	continue to the next step.

7

IF...	THEN...
three or fewer attempts have been made for the login so far	return to Step 2.
more than three login attempts have been made so far	the network element information is not correct. Contact the data network administrator and make sure proper NE information is available. Return to Step 2.

END OF STEPS



Task 601: Recovering from Communication Failure Between Optical Craft Interface and System

Purpose Use this procedure when communications between the OCI and the system fail.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ AOS and an electrostatic discharge (ESD) strap.
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-20).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-57).
- Log in to the network element with a Privilege Code of S1 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-50).

Safety precautions Read and understand the following precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 6, “Recovery Tasks Background”
- “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-20)
- “Task 600: Establishing Communication Between the System and the Optical Craft Interface” (12-2)

Task Complete the following steps to clear the communication problem.

- 1 Make sure that the network element is up and running by observing any illuminated LEDs on the circuit packs and User Panel of the System Controller Shelf.

IF...	THEN...
no LEDs are illuminated	go to “Task 605: Recovering from Shelf Power Failure” (12-19) and “Task 606: Recovering from System Power Failure” (12-21).
one or more LEDs are illuminated	continue to the next step.

- 2 Make sure that the TID and IP address of the network element are available from the system administrator if the information has not been provisioned in the OCI.

- 3 Establish communications with the system. Go to “Task 600: Establishing Communication Between the System and the Optical Craft Interface” (12-2).

END OF STEPS



Task 602: Recovering from Failure of Both DCCs

Purpose Use this procedure to recover from concurrent failures of both DCCs. Double DCC failures are characterized by an inability to communicate with the LambdaRouter™ AOS. For additional information about this task, refer to “Task 602: Recovering From Failure of Both DCCs” (6-3)

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Obtain and use the electrostatic discharge (ESD) strap.
- After any reset or side switch, log in again. Refer to “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-50).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 6, “Recovery Tasks Background”



CAUTION

This process may corrupt the system database, which may consequently affect service.

Task Complete the following steps to recover from concurrent failures of both DCCs.

- 1 Reset each DCC by pressing the recessed reset button on the circuit pack faceplate or by physically extracting and re-insertion the pack. Allow 2 to 3 minutes for the DCC circuit pack to reboot

IF...	THEN...
both DCCs successfully reboot	establish communications with the system. Go to “Task 600: Establishing Communication Between the System and the Optical Craft Interface” (12-2) <i>Stop! End of Task.</i>

IF...	THEN...
one DCC successfully reboots	establish communications with the system. Go to “Task 600: Establishing Communication Between the System and the Optical Craft Interface” (12-2). Continue to the next step.
neither DCC successfully reboots	continue to Step 3.

-
- 2 Replace the DCC circuit pack that did not boot with a known good replacement. Allow 2 to 3 minutes for the DCC circuit pack to initialize.

IF...	THEN...
DCC successfully initializes	<i>Stop! End of Task.</i>
DCC does not successfully initialize	contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 3 Replace both DCC circuit packs that did not boot with known good replacements. Allow 2 to 3 minutes for the DCC circuit packs to initialize.

4

IF...	THEN...
both DCCs successfully initialize	establish communications with the system. Go to “Task 600: Establishing Communication Between the System and the Optical Craft Interface” (12-2).
one DCC successfully initializes	establish communications with the system. Go to “Task 600: Establishing Communication Between the System and the Optical Craft Interface” (12-2) and contact Lucent Technical Support.
neither DCC successfully initializes	contact Lucent Technical Support.

END OF STEPS



Task 603: Recovering from Failure of Both SYS50Ds

Purpose Use this procedure to recover from concurrent failures of both SYS50D system controllers. Double SYS50D system controller failures are characterized by an inability to communicate with the system.

Before you begin Before beginning this task

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Obtain and use the electrostatic discharge (ESD) strap.
- After any reset or side switch, log in again. Refer to “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-50).

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 6, “Recovery Tasks Background”
- “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-2)
- “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-2)



WARNING

This process may corrupt the system database, which may consequently affect service.

Task Complete the following steps to recover from concurrent failures of both SYS50D System Controllers.

- 1** Reset the SYS50D side 0 circuit pack by pressing the recessed reset button on the circuit pack faceplate or by physically extracting and re-

inserting it. Allow five minutes for the SYS50D circuit pack to reboot.

IF...	THEN...
the SYS50D side 0 circuit pack successfully reboots (indicated by the SYS50D green LED being continuously illuminated)	continue to Step 3.
the SYS50D side 0 circuit pack does not successfully reboot	replace the side 0 SYS50D circuit pack with a known good replacement SYS50D circuit pack. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-76). Continue to the next step.

2

IF...	THEN...
the SYS50D side 0 circuit pack successfully reboots (indicated by the SYS50D green LED being continuously illuminated)	continue to the next step.
the SYS50D side 0 circuit pack does not successfully reboot	continue to Step 9.

3 Establish communications with the LambdaRouter™ AOS. Go to “Task 600: Establishing Communication Between the System and the Optical Craft Interface” (12-2).

4 Reset the SYS50D side 1 circuit pack by pressing the recessed reset button on the circuit pack faceplate.

IF...	THEN...
the SYS50D side 1 circuit pack successfully reboots (indicated by the SYS50D green LED being continuously illuminated)	continue to the Step 7.

IF...	THEN...
the SYS50D side 1 circuit pack does not successfully reboot	replace the side 1 SYS50D circuit pack with a known good replacement SYS50D circuit pack. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-76). Continue to next step.

5

IF...	THEN...
the side 1 SYS50D circuit pack successfully reboots (Green LED is illuminated)	continue to the next step.
the side 1 SYS50D pack does not reboot	there is a problem with the side 1 SYS50D. Contact Lucent Technical Support. <i>Stop! End of Task.</i>

- 6 A manual protection switch to side 1 can determine if the SYS50D side 1 replacement is OK. Go to “Task 508: Executing or Releasing a Forced or Manual Protection Switch” (11-44).

- 7 Be sure to log in to the LambdaRouter TM AOS after the protection switch. Go to “Task 510: Logging in to LambdaRouter TM AOS from the Optical Craft Interface” (11-50).

IF...	THEN...
protection switch to side 1 is successful	<i>Stop! End of Task.</i>
the side 1 SYS50D circuit pack does not successfully boot	there is a problem with side 1. Contact Lucent Technical Support. <i>Stop! End of Task.</i>

- 8 Reset the SYS50D side 1 circuit pack by depressing the SYS50D circuit pack recessed reset button. Then log in again. Go to “Task 510: Logging in to LambdaRouter TM AOS from the Optical Craft Interface” (11-50).

9

IF...	THEN...
the side 1 SYS50D circuit pack successfully reboots (green LED is illuminated)	there is a problem with the side 0 SYS50D. Contact Lucent Technical Support. <i>Stop! End of Task.</i>
the side 1 SYS50D pack does not reboot	replace the side 1 SYS50D circuit pack with a known good replacement SYS50D pack. Go to "Task 517: Removing, Inserting, or Replacing a Circuit Pack" (11-2). Continue to the next step.

10

IF...	THEN...
the side 1 SYS50D circuit pack successfully reboots (Green LED is illuminated)	log in again. Go to "Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface" (11-50). There is a problem with the side 0 SYS50D. Contact Lucent Technical Support. <i>Stop! End of Task.</i>
the side 1 SYS50D pack does not reboot	there is a problem with both SYS50D circuit packs. Contact Lucent Technical Support. <i>Stop! End of Task.</i>

END OF STEPS



Task 604: Recovering from LED Failure

Purpose Use this procedure to recover from an LED failure on a circuit pack or on a shelf user panel. An LED failure on a circuit pack is characterized by the green LED not being illuminated, even though the circuit pack is active; or a failure in the circuit pack does not result in the red LED being illuminated. A User Panel LED failure can be characterized by any one or all of the User Panel LEDs failing to illuminate despite an alarm being reported to the OCI.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ AOS and an electrostatic discharge (ESD) strap.
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.
- Connect the OCI to the local network element; use “Task 502: Connecting or Disconnecting the Optical Craft Interface to or from LambdaRouter™ AOS” (11-20).
- Log in to the OCI; use “Task 512: Logging in to the Optical Craft Interface” (11-57).
- Log in to the network element with a Privilege Code of M3 from the OCI; use “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-50).
- Have on hand a replacement circuit pack of the appropriate type and a replacement user panel, if needed.

Safety precautions Read and understand the following safety precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

- Chapter 5, “Supporting Tasks Background”
- Chapter 6, “Recovery Tasks Background”
- “Task 201: Clearing Power Failure (PWR)” (8-16)
- “Task 520: Replacing a User Panel” (11-98)
- “Task 606: Recovering from System Power Failure” (12-21)

Task Complete the following steps to recover from an LED failure on either a circuit pack or shelf user panel.

-
- 1** To test either a circuit pack LED failure or user panel LED failure, depress the LED Test button on any user panel and observe the suspect LEDs.

Result: Under normal circumstances within 10 seconds of depressing the LED Test button all circuit pack LEDs and user panel LEDs illuminate.

2

IF...	THEN...
no LEDs are illuminated system-wide	go to “Task 606: Recovering from System Power Failure” (12-21). <i>Stop! End of Task.</i>
no LEDs are illuminated shelf-wide for the circuit pack or user panel in question	go to “Task 201: Clearing Power Failure (PWR)” (8-16). <i>Stop! End of Task.</i>
a circuit pack has LEDs that fail to be illuminated (other circuit packs on the shelf have LEDs properly illuminated)	continue to the next step.
a user panel has LEDs that fail to be illuminated (circuit packs on the shelf have LEDs properly illuminated)	replace the User Panel. Go to “Task 520: Replacing a User Panel” (11-98). Then continue to Step 9.
all LEDs under surveillance are properly illuminated	<i>Stop! End of Task.</i>

-
- 3** Replace the circuit pack whose LEDs fail to illuminate. Go to “Task 517: Removing, Inserting, or Replacing a Circuit Pack” (11-76).

After the circuit pack initializes, again test the LEDs either by depressing the LED Test button or by using the OCI Test LED screen.

Result: Under normal circumstances within 10 seconds of depressing the LED Test button all circuit pack LEDs and user panel LEDs illuminate.

- 4** At the OCI System View, select **Fault>Test>LED**.

Result: The Test LED Screen appears.

- 5** Select the shelf and then click **Select**.

Result: The Test LED Screen appears.

- 6** Select the number of iterations and click **Start**.

Result: A confirmation screen appears.

- 7** Click **Yes**.

Result: All LEDs except the Power On LED, are tested. During one iteration of the test, each LED is turned on for two seconds, then off for two seconds, three times. The test cycle is repeated the specified number of times.

- 8** Observe the replacement circuit pack LEDs.

IF...	THEN...
the LEDs illuminate properly	the LEDs have been restored to normal operation. <i>Stop! End of Task.</i>
the LEDs fail to illuminate	contact Lucent Technical Support. <i>Stop! End of Task.</i>

-
- 9** Again, press the LED Test button and observe the replacement User Panel LEDs

Result: Under normal circumstances within 10 seconds of depressing the LED Test button all circuit pack LEDs and user panel LEDs illuminate.

10

IF...	THEN...
the LEDs fail to illuminate	contact Lucent Technical Support.
the LEDs illuminate properly	the LEDs have been restored to normal operation.

END OF STEPS



Task 605: Recovering from Shelf Power Failure

Purpose Use this procedure to recover from a power failure on a shelf.

Before you begin Before beginning this task:

- Read and follow all safety instructions in Chapter 1, “Safety”.
- Obtain and use the electrostatic discharge (ESD) strap.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”

Task Complete the following steps to recover from a shelf power failure.

1 Check the shelf circuit breakers.

IF...	THEN...
A and B circuit breakers are on, both PFVP unit LEDs are off, and there is power to the premises	the PFVP units are faulty. Contact Lucent Technical Support. <i>Stop! End of Task.</i>
both PFVP unit LEDs are off	power to the system has failed. Follow local procedures to restore power. <i>Stop! End of Task.</i>
A and B circuit breakers are off and both PFVP units are on	continue to the next step.
A or B circuit breaker is off and one PFVP unit LED is off	continue to the next step. Call Lucent Technical Support about replacing the failed PFVP unit.
A or B circuit breaker is off and both PFVP unit LEDs are on	continue to the next step.

2 Turn off the power to the PFVP unit and reset the circuit breaker by inserting a small flat-head screwdriver into the slot on the Off side

circuit breaker On/Off switch until the power turns off. Then turn the power back on by pressing the On side of the On/Off switch.

IF...	THEN...
power is restored	shelf power has been restored.
power is not restored	contact Lucent Technical Support.
the PFVP unit LEDs blink momentarily	there is a short circuit in the PFVP unit. Contact Lucent Technical Support.

END OF STEPS



Task 606: Recovering from System Power Failure

Purpose Use this procedure when there is a loss of the power to the network element or to the network element premises. For additional information about this task, refer to Chapter 6, “Recovery Tasks Background”.

Before you begin Before beginning this task:

- Obtain an Optical Craft Interface (OCI) for LambdaRouter™ and an electrostatic discharge (ESD) strap.
- Read and follow all safety instructions in Chapter 1, “Safety”.
- Use the electrostatic discharge (ESD) strap.

Safety precautions Read and understand the following safety precaution:



CAUTION

Whenever handling circuit packs or working on a LambdaRouter™ AOS system use a static ground wrist strap to prevent electrostatic discharge.

Related information For related information, see

- Chapter 2, “Alarm Messages and Trouble-Clearing Introduction”
- Chapter 6, “Recovery Tasks Background”

Task Complete the following steps to recover from a system power failure.

-
- 1** Determine the cause of the power interruption and follow local practices to restore power.
-
- 2** Re-establish connection between the OCI and the network element. Go to “Task 600: Establishing Communication Between the System and the Optical Craft Interface” (12-2).

3 Log in to the LambdaRouter™ AOS.

Reference: “Task 510: Logging in to LambdaRouter™ AOS from the Optical Craft Interface” (11-50)

END OF STEPS





Appendix A: Abbreviations and Acronyms

Numerics	10BT 10 BaseT
	10G 10 Gigabits per second
	100BT 100 BaseT
	2G/2.5G 2.5 Gigabits per second
A	ABN Abnormal
	ACO Alarm Cut-Off
	ACO/TST Alarm Cut-Off and Test
	ACT Active
	ACTY Activity
	ADC Analog-to-Digital Converter
	ADM Add/Drop Multiplexer
	AID Access Identifier
	AINS Automatic In-Service
	AIRP Automatic Interconnection Recognition Protocol

AIS Alarm Indication Signal

AIS-L Alarm Indication Signal-Line

AIS-MS Alarm Indication Signal-Multiplex Section

ALM Alarm

ALSO Automatic Laser Shut-Off

ANR Abnormal

ANSI American National Standards Institute

AOS All Optical Switch

APP Apparatus Code

APR Automatic Power Reduction

ARP Address Resolution Protocol

ARST Autonomous Reset

ASAP Alarm Severity Assignment Profile

ASCII American Standard Code for Information Interchange

ASIC Application-Specific Integrated Circuit

ATM Asynchronous Transfer Mode

ATTR Attribute

B **BBE** Background Block Error

BER Signal Degrade B2 Bit Error Rate

BIP Bit Interleaved Parity

BT BaseT

C	CARES Customer Assistance Request Entry System
	CC Communication Client
	CCD CTLI-D Controller Device
	CCN Control Communications Network
	CIC Customer Information Center
	CIT Craft Interface Terminal
	CLEI Common Language [®] Equipment Identifier
	CO Central Office
	COM Common
	CONTR Controller
	CP Circuit Pack
	CP-ID Circuit Pack Identifier
	CPF Circuit Pack Failure
	CPLD Complex Programmable Logic Device
	CPU Central Processing Unit
	CR Critical
	CSA Canadian Standards Association
	CSMA/CD Carrier Sense Multiple Access/Collision Detect
	CSR Composite Service Request
	CTL Controller
	CTLI-D Control Interface to Devices
	CV Coding Violation
	CV-L Coding Violation-Line (Near End)
	CV-LFE Coding Violation-Far End Line
	CV-S Coding Violation-Section

- D** **DAC** Digital-to-Analog Converter
- DATAFLT** Database Fault
- DBCHG** Database Change
- DCC** Data Communications Controller; Data Communications Channel
- DCE** Data Communications Equipment
- DHCP** Dynamic Host Configuration Protocol
- DLC** Download Client
- DLS** Download Server
- DNS** Domain Name Server
- DOS** Detection of Signal
- DTE** Data Terminal Equipment
- DTP** Data Transfer Process
- DVM** Digital Voltage Meter
- DWDM** Dense Wavelength Division Multiplexing
- E** **EB** Errored Block
- EBER** Signal Fail B2 Excessive Bit Error Rate
- ECI** Equipment Catalog Item
- ECS** Express Connection Service
- EEPROM** Electrically Erasable Programmable Read Only Memory
- EI** External Interface
- EIS** Engineering Information Standards
- ELSR** Edge Label Switched Router
- EM** Equipment Management
- EMI** Electromagnetic Interference
- EMS** Element Management System

EO Expansion Operations Network

EOF End of File

EOL End of Line

EOR End of Record

EPROM Electrically Programmable Read Only Memory

EQ Equipped; Equipment

EQPT Equipment

ESD Electrostatic Discharge

ES Errored Seconds

ES-L Errored Seconds-Line (Near End)

ES-LFE Errored Seconds-Far End Line

ES-S Errored Seconds-Section

ETS European Telecommunications Standard

ETSI European Telecommunications Standards Institute

F **FCC** Federal Communications Commission; Fast Communications Channel

FCIO Function Controller Input/Output Device

FDA/CDRH Federal Drug Administration, Center for Devices and Radiological Health

FDP Fiber Distribution Panel

FE Far End

FEND Far End

FI Facility Interface

FIFO First In First Out

FIT Failure In Time

FLT Fault

FM Fault Management

FTP File Transfer Protocol

- G**
 - GBELX** Gigabit Ethernet
 - GMT** Greenwich Mean Time
 - GPIO** General Purpose Input/Output
 - GUI** Graphical User Interface
- H**
 - HSBB** High-Speed Broadband
 - HSWIC** High-Voltage Shelf Switch Interface Controller
 - HV** High Voltage
 - HVCPG** High-Voltage Shelf Controller Protection Group
 - HVDAC** High-Voltage Digital-to-Analog Converter
 - HVFAN** High-Voltage Shelf Fan
 - HVS** High-Voltage Shelf
- I**
 - IAO** Intraoffice
 - IAO LAN** Intraoffice Local Area Network
 - ID** Identifier
 - IDC** Insulation Displacement Connector
 - IEC** International Engineering Consortium
 - IEEE** Institute of Electrical and Electronics Engineers
 - IETF** Internet Engineering Task Force
 - IF** In Frame
 - IFMT** Interface Format
 - IIC** Inter-Integrated Circuit
 - IMF** Infant Mortality Factor
 - IMPROPRML** Improper Removal
 - INTSFT** Internal Software
 - I/O** Input/Output

IOPT Interface Optics

IP Internet Protocol

IP-CPY-MEM In Progress—Copy Memory

IR Intermediate Reach

IS In Service

IS-NR In Service-Normal

ISO International Standards Organization

ITE Information Technology Equipment

ITU International Telecommunications Union

ITU-T International Telecommunications Union—
Telecommunication Standardization Sector

J J0 SONET/SDH Section Trace Byte

JTAG Joint Test Action Group

K KA Keep Alive

KAALM Keep Alive Alarm

L L<number> Layer <number>

L/MS Line/Multiplex Section

LAN Local Area Network

LBC Laser Bias Current

LC Lucent Connector

LED Light-Emitting Diode

LID LED Interface Device; Logical Identifier

LLC Logical Link Control

LLO Lucent Learning Organization

LM Loss Parameter

LMPTST Lamp Test

LOF Loss of Frame

LOS Loss of Signal

LPBKCRS Loopback Cross-Connect

LPBK-DX Loopback–Duplex

LPBK-SX Loopback–Simplex

LR Long Reach

LSAP LLC Service Access Point

LSBB Low Speed Broadband

LVDS Low Voltage Differential Signal

M M Maintenance

MA Management; Messaging Agent

MAC Media Access Control

MAN Metropolitan Area Network

MD Mediation Device

MEA Mismatch of Equipment and Attributes

MEM Memory

MEMS Micro-Electromechanical System

MIB Management Information Base

MJ Major

MLOS Mapper Loss of Signal

MMIS Memory Mismatch

MN Minor

MON Monitoring

MONE Monitor E-tributary

MONEF Monitor E- and F-tributary

MONF Monitor F-tributary

MPLS Multiprotocol Label Switching

MS Multiplex Section

MS_F_BBE Multiplex Section Far End Background Block Errors

MS_F_ES Multiplex Section Far End Errored Seconds

MS_F_SES Multiplex Section Far End Severely Errored Seconds

MS_F_UAS Multiplex Section Far End Unavailable Seconds

MS_N_BBE Multiplex Section Near End Background Block Errors

MS_N_ES Multiplex Section Near End Errored Seconds

MS_N_SES Multiplex Section Near End Severely Errored Seconds

MS_N_UAS Multiplex Section Near End Unavailable Seconds

MT Maintenance

MTBMA Mean Time Between Maintenance Activities

MTTF Mean Time To Failure

MTTR Mean Time To Repair

N **NBF** Non-blocking Fabric

NDF New Data Flag

NE Near End; Network Element

NEBS Network Equipment-Building System

NEDS Network Equipment Development Standards

NEND Near End

NIC Network Interface Card

NMON Non-Monitoring

NMS Network Management System

NNI Network to Network Interface

NP Network Path

NR Not Reported

NSA Non-Service-Affecting

NVM Non-Volatile Memory

NVMU Non-Volatile Memory Usage

NVMW Non-Volatile Memory Wearout

NVRAM Non-Volatile RAM

- O**
 - OA** Optical Amplifier
 - OC-n** Optical Carrier <number>
 - OCH** Optical Channel
 - OCI** Optical Craft Interface
 - OEO** Optical to Electrical to Optical
 - OICPG** Optical Interface Shelf Controller Protection Group
 - OIFAN** Optical Interface Shelf Fan
 - OIM** Optical Interface Module
 - OIS** Optical Interface Shelf
 - OIS-10G** Optical Interface Shelf-10Gbps
 - OIS-2G** Optical Interface Shelf-2.5Gbps
 - OIS-MX** Optical Interface Shelf-Mixed
 - OIS-S** Optical Interface Shelf-SDH/SONET
 - OIS-T** Optical Interface Shelf-Transparent
 - OLS** Optical Line System
 - OMERR** Out of Memory Error
 - ON** Operations Network
 - ONI** Operations Network Interface
 - ONNS** Optical Network Navigation System
 - OOF** Out of Frame
 - OOS** Out of Service
 - OOS-AU** Out of Service Autonomous
 - OOS-MA** Out of Service Management
 - OPI** Operations Peripheral Interface
 - OPR** Operate; Optical Power Received

OPT Optical Power Transmitted

OS Operations System

OSPF Open Shortest Path First

OSWIC Optical Interface Shelf Switch Interface Controller

OTDR Optical Time Domain Reflectometer

OTU Optical Translator Unit

OXC Optical Cross-Connect

OXI Optical Cross-Connect Interface

OXI-10GC Optical Cross-Connect Interface-10 Gbps Client

OXI-2GC Optical Cross-Connect Interface-2.5 Gbps Client

OXI-4A13 Optical Cross-Connect Interface-4 ports with optical amplifiers in the 1310 nm band

OXI-4A15 Optical Cross-Connect Interface-4 ports with optical amplifiers in the 1550 nm band

P **P** Provisioning

PCMCIA Personal Computer Memory Card International Association

PFVP Power Filter Voltage Protection

PFVP-CB Power Filter Voltage Protection with Circuit Breaker

PIC Peripheral Interface Controller

PID Password Identifier

PLD Programmable Logic Device

PM Performance Monitoring

PMD Polarization Mode Dispersion

PMOD Personality Module

POR Power On Reset

PRI Primary Nonvolatile Memory

PROGFLT Program Fault

PROV Provisioned

PSCHG Protection Switch Change

PST Primary State

PU Port Unit

PWR Power

PWRM Power Monitor

Q **QoS** Quality of Service

R **RC** Restoration Controller

RCCN Restoration Controllers Communications Network

RIP Restoration Interface Processor

RS Regenerator Section

RS_N_BBE Regenerator Section Near End Background Block Errors

RS_N_ES Regenerator Section Near End Errored Seconds

RS_N_SES Regenerator Section Near End Severely Errored Seconds

RS_N_UAS Regenerator Section Near End Unavailable Seconds

RSVP Resource Reservation Protocol

RSVP-TE Resource Reservation Protocol-Traffic Engineering

RU Resource Usage

S **S** Security

SA Service-Affecting

SAP Service Access Point

SB Secondary Boot

SCC System Controller Complex

SCCPG System Controller Complex Protection Group

SCFAN System Controller Shelf Fan

SCMMA System Controller in Maintenance

SCS System Controller Shelf

SD Signal Degrade

SDH Synchronous Digital Hierarchy

SDRAM Synchronous Dynamic Random Access Memory

SEC MEM Secondary Non-Volatile Memory

SEEPROM Serial EEPROM

SEFS Severely Errored Framing Seconds

SEFS-S Severely Errored Framing Seconds-Section

SELV Safety Extra Low Voltage

SES Severely Errored Seconds

SES-L Severely Errored Seconds-Line (Near End)

SES-LFE Severely Errored Seconds-Far End Line

SES-S Severely Errored Seconds-Section

SF Signal Fail

SI Switch Interface

SID Source Identifier

SI-S Switch Interface-SONET/SDH (cable)

SI-T Switch Interface-Transparent (cable)

SLA Service Level Agreement

SLN Serial Number

SMC Serial Management Controller

SMEM Secondary MEM

SMF Single Mode Fiber

SMI Serial Management Interface
SMS Service Management System
SN Serial Number
SNIP Serial Number Identification Port
SNMP Simple Network Management Protocol
SNMS SubNetwork Management System
SONET Synchronous Optical Network
SPLTR Splitter
SR Short Reach
SRC Subrack Controller
SSN Series Number
STBY Standby
STBYS Standby Switched
STCHG State Change
STM Synchronous Transfer Mode
STS Synchronous Transport Signal
SWIC Switch Interface Controller
SWIP Switch Interface Point
SWMG SWIP Maintenance Group
SWS Switch Shelf
SYSCTL System Controller

T **T** Test
TA Test Access
TAM Test Access Monitoring
TC Transient Condition

TCA Threshold Crossing Alert

TCP/IP Transmission Control Protocol/Internet Protocol

TID Target Identifier

TL1 Transaction Language 1

TMN Transport Management Network

TSA Test Alarm

TSS Technical Support Services

- U** **UAS** Unassigned; Unavailable Seconds
- UAS-L** Unavailable Seconds-Line (Near End)
- UAS-LFE** Unavailable Seconds-Far End Line
- UDP** User Datagram Protocol
- UEQ** Unequipped
- UI** Unit Interface
- UIA** User Interface Appliance
- UIA** Unit Interface Appliance
- UID** User Identification
- UL** Underwriters Laboratories
- UNEQ** Unequipped
- UNI** User to Network Interface
- UPC** User Privilege Code
- V** **V/V** Voltage to Voltage
- VSR** Very Short Reach
- W** **WAN** Wide Area Network
- WDM** Wavelength Division Multiplexing
- WINS** Windows Internet Network Service





Glossary

Numerics

0x1 Facility Interface

A transmission interface without line or equipment protection switching.

0x1 Line Operation

Operation between network elements, without protection in a single bidirectional line (no protection line is available).

1+1 Client Protection

A protection architecture, in which connections between a LambdaRouter™ All Optical Switch (AOS) 128/256 and client network elements can be configured as 1+1 at the optical level.

1+1 Protection Group

A protection architecture, in which one working function is protected by one protection function. In addition, the protection function is fully synchronized with the working function. The functions are permanently bridged upstream, and one is selected downstream.

1+1 Restoration

A type of network restoration. The restoration path, including the end-points, is provisioned when initial path provisioning is done. The restoration path always carries the same signal as the service path, and the egress LambdaRouter™ All Optical Switch (AOS) 128/256 automatically switches over to it when the service path fails.

1x1 Protection Group

A protection architecture, in which one working function is protected by one protection function. In contrast to the 1+1 Protection Group, the protection function is not fully synchronized with the working function.

A Access Identifier (AID)

A technical specification for explicitly naming entities (both physical and logical) of a network element, following Telcordia TL1 syntax.

Accumulation Registers

Used in performance monitoring. Registers that provide data storage for each SONET (Section and Line) and SDH (Regenerator Section and Multiplex Section) transmission parameter monitored.

Activation

The process of starting software or using the data in execution the first time after installation.

Active (ACT)

Indication that a circuit pack or module is in service and is currently providing service functions. *See also* Standby.

Active Path

One of two signals entering a constituent path selector. The active path is the one currently being selected.

Add/Drop Multiplexer (ADM)

A synchronous network element capable of combining signals of different rates and having those signals added to or dropped from the stream.

Alarm

A visible or audible signal to the operations environment that a communication, equipment, or processing failure has occurred.

Alarm Correlation

A LambdaRouter™ All Optical Switch (AOS) 128/256 feature that minimizes the number of alarm messages generated for a single fault condition.

Alarm Cut-Off (ACO)

A mechanism to silence local Central Office audible alarms. It is activated by a user panel button or a user command.

Alarm Indication Signal (AIS)

A code sent downstream in a network to indicate an upstream failure.

Alarm List

A LambdaRouter™ All Optical Switch (AOS) 128/256 status report that lists active alarms on the network element. It includes alarm level and type, affected equipment, effect on service, condition description, and additional details of the failure, if available.

Alarm Log

A history and time sequence of the setting and clearing of alarms on the LambdaRouter™ All Optical Switch (AOS) 128/256. The alarm log contains as many as 512 alarm messages. It includes the type of trouble, time of occurrence, identification of affected equipment, effect on service, alarm level, alarm condition state, and additional details of the failure, if available.

Alarm Notification Category

One of the types of LambdaRouter™ All Optical Switch (AOS) 128/256 alarm messages: Optical Channel, Equipment, Common, Security, Control Communications Network (CCN), or Quality of Service (QoS) Alarm.

Alarm Severity

An attribute that defines the priority of an alarm message. The way alarms are processed depends on their severity.

American Standard Code for Information Interchange (ASCII)

A standard seven-bit code that represents letters, numbers, punctuation marks, and special characters in the interchange of data among computing and communications equipment.

Apparatus Code (APP)

A circuit pack identifier stored in EEPROM.

Asynchronous

The essential characteristic of time-scales or signals, such that their corresponding significant instants do not necessarily occur at the same average rate.

Asynchronous Transfer Mode (ATM)

A high-speed transmission technology characterized by high bandwidth and low delay. It uses a packet switching and multiplexing technique that allocates bandwidth on demand.

Authorization Level

A numeric code that determines what commands within a functional category a user may access on the LambdaRouter™ All Optical Switch (AOS) 128/256. The authorization level ranges from 0 (lowest) to 5 (highest) for all functional categories except security, which ranges from 1 to 5. Assigning an authorization level of 0 disables that functional category for a particular user.

Automatic Interconnection Recognition Protocol (AIRP)

A protocol used by LambdaRouter™ All Optical Switch (AOS) 128/256 in conjunction with LambdaRouter™ Optical Network Navigation System (ONNS), to perform automatic port neighbor discovery.

Automatic Port Neighbor Discovery

A network element process that uses the Automatic Interconnection Recognition Protocol (AIRP) to automatically discover the association of input ports and output ports in adjacent LambdaRouter™ All Optical Switch (AOS) 128/256 network nodes.

Auto-Provisioning

The capability of the LambdaRouter™ All Optical Switch (AOS) 128/256 to discover its hardware configuration and to create associated database entries autonomously using the original (default) or user-defined, pre-provisioned parameters. These parameters are maintained in non-volatile memory (NVM) and/or hardware registers.

Automatic Protection Switch

A protection switch that occurs automatically in response to an automatically detected fault condition.

B Backup and Restore

The capability to copy and restore databases between Primary Non-Volatile Memory (NVM) and Secondary NVM, Primary NVM and Navis™ Optical Element Management System, and Primary NVM and Optical Craft Interface.

Bandwidth Management

The capability that allows LambdaRouter™ All Optical Switch (AOS) 128/256 users to provision either unidirectional or bidirectional optical, or optical-electrical-optical (OEO), cross-connections for transmission paths through the switch fabric.

Bay

A hardware frame in which shelves are mounted and housed.

Bidirectional Line

A transmission path consisting of two fibers that handle traffic in both the transmit and receive directions.

Bit Error Rate (BER)

The ratio of error bits received to the total number of bits transmitted.

Blank (BLK)

The status of a circuit pack slot that contains a bus extender (blank) circuit pack; the pack itself.

Bridging

A one-way 1:2 multicast from an input port where a 1:2 splitter routes the two one-way signals through the duplicated switch fabric to two different output ports. Each one-way leg is a simplex transmission path. *See also* Merging.

Broadband Communications

Voice, data, and/or video communications at greater than 2 Mbps rates.

Busy State

Indication that a port is being used in a cross-connection.

C Calibration Database

A database that indicates initial control voltages for each Switch Shelf mirror in an array. The calibration data is delivered on a non-volatile memory (NVM) card and is installed by inserting the card into the secondary NVM (SEC MEM) on the LambdaRouter™ All Optical Switch (AOS) 128/256.

Card

A removable integrated circuit board/circuit pack.

Central Office (CO)

A building in which common carriers terminate customer circuits.

Channel

A (one-way) transmission pathway from an input port to an output port in the network element, at any supported transmission rate and/or format.

Circuit Pack (CP)

A single field-replaceable electronic or opto-electronic unit. It comprises mechanical piece-parts, electronic components, and their associated connections and performs a specific function.

Circuit Pack Extraction

The process of software acknowledgement of an event associated with the physical removal of a circuit pack from a shelf slot, or the opening of its latch.

Circuit Pack Identifier (CP-ID)

A code that is derived from the circuit pack type (apparatus code), serial number, series number (version), CLEI™ code, and ECI code of each circuit pack. The circuit pack identifier is readable by the system upon insertion of the pack in any allowable slot.

Circuit Pack Insertion

The process of acknowledging and subsequently provisioning a valid circuit pack that has been inserted into a shelf slot. Circuit pack insertion requires equipage and latch closure acknowledgments, and a response to the insertion cannot be completed prior to the detection of the latch closure.

Client

A client network interface.

Cold Standby

A standby function that does not function simultaneously with the active function. It requires a form of initialization (provisioning) before it can assume the role of the active function.

Command Echo

The ability of the LambdaRouter™ All Optical Switch (AOS) 128/256 to repeat the text of entered commands to a user provisioned for this feature.

Command Functional Categories

Logical groupings of LambdaRouter™ All Optical Switch (AOS) 128/256 commands. These include maintenance (M), provisioning (P), security (S), test (T), and performance monitoring (PM).

Command Group

An administrator-defined group that defines commands to which a user has access.

Common Alarm

A LambdaRouter™ All Optical Switch (AOS) 128/256 alarm message category that indicates a controller software fault, controller autonomous reset, data storage problem, software version mismatch, or security-related issue. Common alarm issue points are circuit pack, controller complex, shelf, or system.

Common Language® Equipment Identifier (CLEI™)

A Telcordia code that identifies telecommunications equipment to facilitate inventory, maintenance, investment tracking, and circuit maintenance processes. CLEI codes are stored in circuit pack EEPROM.

Configuration Management (CM)

The activities necessary to create, modify, retrieve, and delete data that controls the configuration and operation of LambdaRouter™ All Optical Switch (AOS) 128/256 hardware and software. These activities include equipment provisioning, alarm monitoring and fault management, cross-connection management, software management, and performance management.

Configuration Query

A user-initiated request for a report on provisioned data.

Control Bay

The LambdaRouter™ All Optical Switch (AOS) 128/256 frame that contains one System Controller Shelf and up to two Optical Interface Shelves. There is one Control Bay per LambdaRouter™ All Optical Switch (AOS) 128/256 system.

Control Communications Network (CCN)

An IP network, using Restoration Controller (RC) and Restoration Interface Processor (RIP) circuit packs, that provides the signaling method used by LambdaRouter™ Optical Network Navigation System (ONNS) to set up and tear down network paths, and to provide restoration in response to path failures.

Control Communications Network (CCN) Alarm

A LambdaRouter™ All Optical Switch (AOS) 128/256 alarm message category of alarms that are issued with respect to IP network, port, and process fault detection. Control Communications Network alarms are issued for a port.

Controller Reset

The capability of rebooting shelf controllers locally (manually, on equipment) and through command. An Optical Craft Interface, Navis™ Optical Element Management System, or other managing system can reset the LambdaRouter™ All Optical Switch (AOS) 128/256 system or shelf controllers without affecting transmission.

Craft Interface Terminal (CIT)

See Optical Craft Interface (OCI).

Critical (CR) Alarm

An indication of a severe, service-affecting condition.

Cross-Connection

A configurable optical, or optical-electrical-optical (OEO), transmission path interconnection between input and output ports within a single network element.

Cross-Connection Capacity

The total number of cross-connections, as measured by the number of fabric input and fabric output points. A fabric with N input points and N output points provides a cross-connection capacity of N. **See also** Non-Blocking Cross-Connection Capacity; Switch Interface Capacity.

Cross-Connection Configuration

A set of one or more associated cross-connection legs. Examples of configurations that are supported in the LambdaRouter™ All Optical Switch (AOS) 128/256 are one-way point-to-point (one duplex leg); two-way point-to-point (two duplex legs); one-way bridge (two simplex legs); one-way merge (two simplex legs); one-way bridge and merge (three simplex legs); and two way bridge and merge (four simplex legs).

Cross-Connection Fabric

See Switch Shelf (SWS).

Cross-Connection Leg

A one-way connection provisioned from one input port to one output port within a single network element. A leg with a transmission path through one switch fabric is called a simplex leg. A leg that has a transmission path between both fabrics is called a duplex leg.

Cross-Connection List

An Optical Craft Interface for LambdaRouter™ AOS 128/256 status report that lists current cross-connections for the following: a specific port, all ports on a specific circuit pack, all ports on a specific shelf, or all ports in the network element. The report includes the input and output AID, cross-connection type (including loopback type and test access mode), and switch fabric used.

Cross-Connection Loopback

A cross-connection, for maintenance purposes, from an input port through the switch fabric to an output port. An output port may be selected with an access identifier (AID) that is the same or different from the input AID. LambdaRouter™ All Optical Switch (AOS) 128/256 supports normal, forced simplex, and forced duplex loopbacks. A forced simplex loopback allows one of the transmission paths in the forward direction to remain operational.

Cross-Connection Management

The activities necessary to establish and remove cross-connections, operate and release loopback cross-connections, and retrieve cross-connection parameters.

Cross-Connection Rate

The transmission rate associated with the cross-connection, which is determined by the type of ports being used. Ports provided by transparent circuit packs allow cross-connections to be bit-rate-independent. Ports provided by optical-electrical-optical circuit packs limit cross-connections to a specific rate, such as 10 Gbps.

Cross-Connection Topology

The basic nature of a cross-connection configuration. All cross-connections can be classified into two topologies: one-way (unidirectional) and two-way (bidirectional).

Cross-Connection Type

See Cross-Connection Configuration.

Crosstalk

An unwanted signal introduced into one transmission path from another.

Cut-Through

An American Standard Code for Information Interchange (ASCII) interface to a network element (NE). It enables the user to send Transaction Language 1 (TL1) messages directly to the NE.

D Data Communications Controller (DCC)

A LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that provides the interface between the system and the operations data communications network, which is physically accessed via the LAN connection on the External Interface packs. There are two DCC packs on the System Controller Shelf, for active/active service.

Database Labeling

A LambdaRouter™ All Optical Switch (AOS) 128/256 feature that records system target identifier (TID), date of last database modification, date backed up from the network element, and the software generic ID, for use in subsequent download operations.

Debug Support

Maintenance activity access for Lucent personnel.

Default Provisioning

The implementation of parameter values that are preprogrammed at the factory.

Defect

A limited interruption of the ability of an item to perform a required function. It may or may not lead to maintenance action, depending on the results of additional analysis. ***See also*** Failure.

Dense Wavelength Division Multiplexing (DWDM)

The transmitting of two or more signals of different wavelengths simultaneously over a single fiber.

Deprovisioning

The inverse order of provisioning, to manually remove or delete previously provisioned parameters.

Details Screen

A text-based display of parameter settings, states, and all other information related to the detailed item on the display.

Detection of Signal (DOS)

The detection of a signal that meets provisioned threshold values, applying to both input and output ports.

Dialog Box

A secondary Optical Craft Interface graphical user interface (GUI) window designed to allow the user to enter additional information.

Dimmed State

The condition of a graphical user interface control whose normal functionality is not currently available to a user. This state is indicated on the Optical Craft Interface screen by a greyed image.

Discovery

The process of detecting circuit pack presence during system initialization, prior to hardware interrupt enabling.

Dispersion

The phenomenon in which different wavelengths or different polarizations of light travel at different speeds through a fiber optic cable.

Dither

In LambdaRouter™ All Optical Switch (AOS) 128/256, the capability to make small adjustments to the orientation of ingress and egress switch fabric mirrors in order to minimize cross-connection signal loss.

Download

The process of transferring files from a managing system such as the Optical Craft Interface or Navis™ Optical Element Management System to a network element, such as the LambdaRouter™ All Optical Switch (AOS) 128/256. Both software and data can be downloaded to the LambdaRouter™ All Optical Switch (AOS) 128/256. **See also** Upload.

Downstream

At or toward the destination of the considered transmission stream.

Duplex Control

A control architecture that includes two controllers, one active, one standby, that protect each other; if the active one fails, the inactive takes over.

Duplex Cross-Connection

A cross-connection that has a transmission path through both switch fabrics.

Duplex Cross-Connection Fabric

A cross-connection fabric consisting of two identical subunits (Switch Shelves), which form a 1+1 protection group.

E Egress

The direction away from the fabric.

Electromagnetic Compatibility (EMC)

The ability of equipment or systems to operate without causing or receiving degradation from electromagnetic interference (EMI).

Electromagnetic Interference (EMI)

High-energy, electrically induced magnetic fields that cause data corruption in cables passing through the fields.

Electronic Industries Association (EIA)

A trade association of the electronic industry that establishes electrical and functional standards.

Electrostatic Discharge (ESD)

A static electrical energy potentially harmful to circuit packs.

End Guard

A panel that is installed at the ends of a LambdaRouter™ All Optical Switch (AOS) 128/256 bay lineup; it meets ETSI standards.

Entity (Entity Type)

A physical or logical aspect of the LambdaRouter™ All Optical Switch, including the entire system, that has been assigned a name recognizable by the system. Examples include: a shelf, slot, port, switch interface point (SWIP), protection group, fan, and so on.

Entity Identifier

A particular entity, which is identified by the last portion of the access identifier (AID) pertaining to the entity. Examples include: a High-Voltage Shelf (HVS), a particular Restoration Controller (RC) slot, a particular optical channel, a particular optical interface shelf protection group, and so on.

E-Port (eport)

A LambdaRouter™ All Optical Switch input port that terminates an incoming “E-tributary”. In traditional networks, an incoming E-tributary refers to a circuit incoming to the Test Access equipment from the Central Office equipment. E-Port also refers to an idle input port to be used for establishing a one-way Test Access cross-connection.

Equipage Check

A system check of equipment that results in an alarm if there is a mismatch between a circuit pack and the provisioned slot in which it is installed.

Equipment Alarm

A LambdaRouter™ All Optical Switch (AOS) 128/256 alarm message category that indicates transmission and control equipment failures and service interruption owing to failures in power supply, fuse, or fan assembly, or configuration problems. Equipment alarms are issued for port, circuit pack/slot, shelf, and system.

Equipment Catalog Item (ECI)

A circuit pack identifier stored in Erasable Electrical Programmable Read Only Memory (EEPROM).

Equipment Fail (EF) State

A state in which any of the protection group’s circuit packs have failed, and no higher priority request (for example, Clear, Forced Switch) is present. The protection group leaves the EF state when all EF indications are cleared, or a higher priority request has been received.

Equipment List

A report, available through user request, that lists equipment for a selected shelf, circuit pack, or port in the LambdaRouter™ All Optical Switch (AOS) 128/256. The report includes the AID for the selected entity and other information, such as CLEI code, serial number, and cabling information.

Equipment Protection

The protection switching for the redundant common transmission and control equipment in the network element.

Equipment Provisioning

The assigning of values to a set of parameters of the system, or any of its subsystems, to enable the expected use of the entity. Provisionable LambdaRouter™ All Optical Switch (AOS) 128/256 entities include system, shelves, slots/circuit packs, ports, cross-connections, and protection groups.

Equipped (EQ) Status

Indication that a circuit pack or interface module is in the system database and physically in the frame.

Event

Significant change detected by the system. Events in controlled network elements include signal failures, equipment failures, signals exceeding thresholds, and protection switch activity. When an event occurs, the controlled network element will generate an alarm or status message and send it to the managing system.

External Interface (EI)

The LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that provides interfaces to the Data Communications Controller (DCC) circuit pack, Optical Craft Interface port (CIT port), and Intraoffice (IAO) LAN. The EI provides local office alarm relay closures and miscellaneous discrete inputs and outputs. It also provides the interface to alarm closures on the System Controller Shelf (SCS) User Panel. Duplex EIs are located on the SCS.

Extraction

Physical removal of a circuit pack from a slot, causing a system-initiated removal of an entity from service.

F Fabric

The physical hardware that provides the switching function within the network element; a mesh of interconnections between inputs and outputs. In LambdaRouter™ All Optical Switch (AOS) 128/256, the fabric is a set of mirrors that allows connection between any one of a set of inputs to any one of a set of outputs.

Fabric Wavelength Window

The allowable range of wavelengths transmitted by a given fabric. For LambdaRouter™ All Optical Switch (AOS) 128/256, that range is from 1260 nm to 1360 nm, and from 1500 nm to 1620 nm.

Facility

A one-way or two-way circuit that carries a transmission signal.

Facility Interface (FI)

See Transmission Interface.

Facility Loopback

A loopback of the incoming facility signal to the output of the same facility, without going through a switch fabric. A facility loopback is not supported on LambdaRouter™ All Optical Switch (AOS) 128/256.

Failure

A standing defect. *See also* Software Failure.

Failures in Time (FIT)

A unit of hazard rate used to measure the reliability of non-reparable equipment. A hazard rate of 1 FIT corresponds to a Mean Time to Failure (MTTF) of one billion hours.

Far End (FE, FEND)

Any network element in a maintenance subnetwork other than the one at which the user is posted. *Also called* remote.

Fault

A generic term for anomaly, defect, and failure.

Fault Detection

The ability to identify communications, equipment, and processing failures. LambdaRouter™ All Optical Switch (AOS) 128/256 provides continuous, autonomous, in-service fault detection and isolation on transmission and control equipment.

Fault Management

In LambdaRouter™ All Optical Switch (AOS) 128/256, capabilities that provide fault detection, isolation, reporting and facility/equipment alarms, user/alarm displays, circuit pack LEDs, office alarms, and records provisioning.

Fiber Distribution Panel (FDP)

In LambdaRouter™ All Optical Switch (AOS) 128/256, a Switch Shelf panel that contains connectors for 256 inputs and 256 outputs.

Fiber Management Unit

A LambdaRouter™ All Optical Switch (AOS) 128/256 duct used to control and store cables and protect them from physical damage. It is used in both overhead and underfloor installations.

Fiber Organizer

A frame between bays that is used for managing fiber cables.

File Transfer Protocol (FTP)

A protocol used by LambdaRouter™ All Optical Switch (AOS) 128/256 for transfer of software and data between the network element and its managing system and between network elements.

F-Port (fport)

A LambdaRouter™ All Optical Switch input port that terminates an incoming “F-tributary”. In traditional networks, an incoming F-tributary refers to a circuit incoming to the Test Access equipment from the facility side. For an existing two-way incoming signal, the input port for either direction can arbitrarily be called the “eport”, and the input port for the other direction is therefore called the “fport”. For a LambdaRouter™ All Optical Switch, an “fport” has no meaning unless a two-way cross-connection already exists.

G General User

An Optical Craft Interface user type with access to all commands except network element (NE) security administration, software installation, system initialization, and NE access capabilities.

Generic

A collection of programs and associated static data that fully support and perform all of the designed functions of the LambdaRouter™ All Optical Switch (AOS) 128/256, Optical Craft Interface, or Navis™ Optical Element Management System (EMS).

Generic Labeling

The unique identification of a software generic release so that it is recognized by the system and is available to the user upon query. The label includes the supplier name and type, version number of the generic, the date built or build number, and the date installed. The generic label information can be retrieved via the managing system or Optical Craft Interface.

H Hard Failure

An unrecoverable nonsymptomatic (primary) failure that causes signal impairment or interferes with critical network functions.

High-Voltage Digital-to-Analog Converter (HVDAC)

The LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that provides the digital-to-analog converters and high-voltage linear amplifiers used to control a subset of the Micro-electromechanical System (MEMS) mirrors in the Switch Shelf (SWS).

High-Voltage Shelf (HVS)

The LambdaRouter™ All Optical Switch (AOS) 128/256 shelf that houses High-Voltage Digital-to-Analog Converter (HVDAC) circuit packs.

High-Voltage Shelf/Optical Interface Shelf (HVS/OIS) User Panel

The LambdaRouter™ All Optical Switch (AOS) 128/256 module that receives alarm status information. It provides visual indications of shelf status through LEDs and a means for generating alarm cutoff and LED test interrupts to the shelf Switch Interface Controller (SWIC) circuit packs. ***See also*** System Controller Shelf (SCS) User Panel.

Hot Standby

A standby function that is fully operational and acts in synchronism with an active function. It is able to take over the role of the active function without the need for initialization. ***See also*** Active; Cold Standby.

I Idle State

The state of a port that is not cross-connected.

Ingress

The direction toward the fabric.

Insert

The physical insertion of a circuit pack into a slot, causing a system-initiated restoral of an entity into service and/or creation of an entity and associated attributes.

Insertion Loss

The decrease in optical signal power incurred by a signal passing through the entire system.

In-Service (IS) State

An administrative state for equipment entities (ports, circuit packs). IS indicates that the entity is fully capable and allowed to perform its specified functions.

Interface Bay

The LambdaRouter™ All Optical Switch (AOS) 128/256 frame that contains optical interface shelves.

Intermediate Reach (IR)

A standard for optics, concerning transmitters and receivers in a system, that insures that transmission can be maintained for intermediate distances (50 km). This standard constrains the output power of the transmitter and the sensitivity of the receiver for moderate haul applications (up to 50 km; a compromise between long and short reaches) without the need for regeneration. *See also* Long Reach; Short Reach; Very Short Reach.

International Telecommunications Union–Telecommunications Standards Sector (ITU-T)

One of three sectors of the ITU. The ITU-T sets global telecommunications standards.

Inventory Query

A user-initiated request for a report on all electronic equipment in the system.

J J0 Byte Sequence

A 16-byte sequence of J0 bytes that can be inserted in the section overhead of a SONET or SDH test signal that is being generated by a LambdaRouter™ All Optical Switch OEO input port that is not detecting an incoming signal. The byte sequence will include the IP v4 address of the LambdaRouter™ All Optical Switch and the Access Identifier (AID) of the OEO input port that is generating the test signal. The sequence is transmitted in hexadecimal format, and is used by AIRP and Test Access functions.

Jitter

The short-term variation of the significant instants of a digital signal from their ideal positions in time. Jitter may cause crosstalk or distortion of the original analog signal, or both, and is potentially a source of bit errors at the input ports of digital equipment. *See also* Wander.

K Keep Alive

A SONET AIS-L signal used for alarm suppression when an input signal is not present.

L Labeling

The LambdaRouter™ All Optical Switch (AOS) 128/256 capability to label database and software generics. *See also* Database Labeling; Generic Labeling.

Lambda

The Greek letter used to signify the wavelength of a complete cycle of signal that propagates through space. Common examples of such signals are radio waves and light waves.

LambdaRouter™ All Optical Switch (AOS)

Generic term used to refer to any LambdaRouter™ All Optical Switch 128/256 configuration.

LambdaRouter™ All Optical Switch (AOS) 128

The Lucent Technologies fully optical signal switching system that uses Micro-electromechanical System (MEMS), a fabric technology consisting of arrays of electrically configurable mirrors. It provides 128x128 input and output ports with a maximum of 112 usable for cross-connections (16 are reserved as spares).

LambdaRouter™ All Optical Switch (AOS) 256

The Lucent Technologies fully optical signal switching system that uses Micro-electromechanical System (MEMS), a fabric technology consisting of arrays of electrically configurable mirrors. It provides 256x256 input and output ports with a maximum of 224 usable for cross-connections (32 are reserved as spares).

LambdaRouter™ Optical Network Navigation System (ONNS)

Software that resides on individual LambdaRouter™ All Optical Switch (AOS) 128/256 systems and provides networking capabilities between LambdaRouter™ All Optical Switch (AOS) 128/256 network nodes via the Control Communications Network (CCN).

Lamp Test (LMPTST)

A user panel button used to test LEDs.

LC Connector (LC)

A Lucent-designed small form-factor plastic optical fiber connector, designed for applications where space is limited. The LC, which is half the size of other common connectors, is ferrule-based and uses the familiar insertion/release mechanism similar to an ordinary telephone plug.

Line

See Port.

Line Protection

Backup for optical interfaces. Line protection protects against failures of line facilities, including the interfaces at both ends of a line, the optical fibers, switching failures, and any equipment between the two ends.

Link Management

The activities necessary to automatically discover, or manually provision port neighbors, verify connectivity between network elements, and coordinate the ports on the two ends of a link connection.

Location

A user-provisionable identifier of the physical positioning of a specific shelf.

Log

System-maintained data of user session activity, including changes, alarms and security activity, and protection switching.

Login ID

See User ID.

Long Reach (LR)

A standard for optics, concerning transmitters and receivers in a system, that insures that transmission can be maintained for long distances (tens of kilometers). This standard constrains the output power of the transmitter and the sensitivity of the receiver for long-haul applications (up to 80 km) without the need for regeneration. *See also* Intermediate Reach; Short Reach; Very Short Reach.

Loopback

A circuit configuration used to compare an original transmitted signal with the resulting received signal. LambdaRouter™ All Optical Switch (AOS) 128/256 supports cross-connection loopback for maintenance purposes.

Loss of Frame (LOF)

An indication of consecutive errored framing patterns in an incoming signal.

Loss of Signal (LOS)

An indication that a signal is below the provisioned threshold values for either the input or output port.

Low-Voltage Shutdown

The capability of LambdaRouter™ All Optical Switch (AOS) 128/256 to detect when power drops below a predefined input voltage level and to shut down gracefully. Cross-connection maps and other provisioned data are maintained through the power loss.

M Maintenance Condition

An equipment state in which some normal service functions are suspended, either because of a problem or for special functions (copy memory) that cannot be performed while normal service is being provided.

Maintenance User

An Optical Craft Interface user login with access to testing, retrieval of network element information, and limited service-affecting commands.

Major (MJ)

An indication of a service-affecting failure.

Manual Port Neighbor Provisioning

A process that allows craft personnel to manually specify neighbor information for each port. *See also* Automatic Port Neighbor Discovery.

Manual Provisioning and Deprovisioning

User-initiated provisioning or deprovisioning by the following commands or graphical user interface (GUI) equivalent actions: create, delete, modify, remove, restore.

Manual Switch State

The events that follow the issuing of the manual switch command. While in the Manual Switch state, the system may switch the active unit automatically, if required for protection switching.

Mapping

The logical association of one set of values, such as addresses on one network, with quantities or values of another set, such as devices or addresses on another network.

Mediation Device (MD)

A device that allows for exchange of management information between managing systems and network elements.

Memory (MEM)

The LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that provides the non-volatile memory (NVM) necessary to store executable code and data for the system. Two primary MEMs (PRI MEMs) are located in the System Controller Shelf and serve as duplicated NVM. They communicate with the SYS50D circuit packs. A secondary MEM (SEC MEM) provides backup to the primary MEMs. Program and configuration data are stored on a PCMCIA card, which can be accessed from the faceplate of the MEM and is removable.

Merging

The use of two simplex cross-connection legs between two different input ports and one output port where a 2:1 selector chooses one of the incoming one-way signals. The use of bridging and merging at a network element provides 1+1 path protection for two-way traffic. *See also* Bridging.

Micro-electromechanical System (MEMS)

The LambdaRouter™ All Optical Switch (AOS) 128/256 fabric technology, which consists of a large number of electrically configurable mirrors, fabricated on a single substrate.

Minimum Configuration

A set of network element (NE) entities that are required to exist for the NE to be operational. These entities are created automatically by the system during initialization.

Minor (MN)

An indication of a non-service-affecting failure of equipment or facility.

MONE Test Mode

Test Access cross-connection mode. In the MONE test mode, the quality of the optical signal [either being received at or being injected by the E-tributary input port (eport)] is being monitored at a Test Access Monitoring (TAM) output port. *See also* MONEF Test Mode; MONF Test Mode.

MONEF Test Mode

Test Access cross-connection mode. In the MONEF test mode, the quality of the optical signals [either being received at or being injected by the E-tributary input port (eport) and F-tributary input port (fport)] are being monitored simultaneously at two different Test Access Monitoring (TAM) output ports. *See also* MONE Test Mode; MONF Test Mode.

MONF Test Mode

Test Access cross-connection mode. In the MONF test mode, the quality of the optical signal [either being received at or being injected by the F-tributary input port (fport)] is being monitored at a Test Access Monitoring (TAM) output port. *See also* MONE Test Mode; MONEF Test Mode.

N Navis™ Optical Element Management System (EMS)

A Lucent product that provides element management functionality for a variety of networking products, including LambdaRouter™ All Optical Switch (AOS) 128/256. *Formerly called* WaveStar® SNMS (SubNetwork Management System).

Navis™ Optical Network Management System (NMS)

A Lucent product that provides comprehensive and integrated network management functionality for an entire transport network. Navis™ Optical NMS can provide provisioning and maintenance management for the LambdaRouter™ All Optical Switch (AOS) 128/256, and other network elements in the LambdaRouter™ All Optical Switch (AOS) 128/256 network. *Formerly called* WaveStar® NMS (Network Management System).

Network Element (NE)

A telecommunications network node that supports network transport services and is directly manageable by a managing system.

Network to Network Interface (NNI)

A LambdaRouter™ All Optical Switch (AOS) 128/256 to LambdaRouter™ All Optical Switch (AOS) 128/256 interface within a network. Ports configured as NNI are able to participate in automatic port neighbor discovery.

Network View

The Optical Craft Interface screens and menu options used to set up an association with network elements or to administer the Optical Craft Interface GUI itself.

Node

All equipment that is controlled by one system controller. A node is not always directly manageable by a managing system.

Non-Blocking Cross-Connection Capacity

The service cross-connection capacity guaranteed to the user to be free from blocking.

Non-Blocking Fabric

The characteristic that no cross-connection request will be denied because of a lack of a path through the fabric, when the desired input and output ports are available.

Non-Revertive Protection Switching

A process in which an active and standby line exist. When a protection switch occurs, the standby line is selected to support traffic, thereby becoming the active line. The original active line then becomes the standby line. This status remains in effect even when the fault clears (there is no automatic switch back to the original status). *See also* Revertive Protection Switching.

Non-Volatile Memory (NVM)

Memory that retains its stored data after power has been removed; for example, a hard disk.

No Request State

The state in which no protection switching activities are occurring.

Not Monitored (NMON)

A provisioning state for equipment that is not equipped with monitors or alarms.

O Off-Board Devices

Transmission devices that are associated with a controller but are located on another circuit pack. *See also* On-Board devices.

Office Alarm Interface

An interface to the Office Alarm System for each alarm level that leads to audible or visible Central Office alarms. Audible alarm cutoff (ACO) is provided locally on the equipment and remotely through user command. Critical, Major, and Minor audible and visible alarms are supported.

On-Board Devices

Transmission devices associated with a controller and located on the same circuit pack. *See also* Off-Board devices.

One-Way Bridge and Merge Cross-Connection

A complex one-way cross-connection configuration that consists of two concatenated basic bridge and merge cross-connection configurations that share a common simplex leg.

One-Way Double Merge Cross-Connection

A complex one-way cross-connection configuration that consists of two merge cross-connections that share the same source (input) ports. It can also be considered as two bridge cross-connections that share the same destination (output) ports.

One-Way Point-to-Point Cross-Connection

A one-leg duplex interconnection between an input port and an output port. It can be set up and taken down by a single command to the network element.

One-Way Simplex Cross-Connection

A cross-connection leg with a transmission path through a single switch fabric. A simplex cross-connection leg can be added to or deleted from an existing cross-connection to form another type of cross-connection configuration. For example, a simplex leg can be deleted from an existing bridge or merge cross-connection to form a one-way point-to-point cross-connection.

Opacity

Bit-rate and format dependence. The LambdaRouter™ All Optical Switch (AOS) 128/256 opaque interfaces are the OXI-10GC and OXI-2GC.

Open Shortest Path First (OSPF) Protocol

A routing protocol used by LambdaRouter™ All Optical Switch (AOS) 128/256 to perform Control Communications Network (CCN) topology discovery. The topology information is used to determine routes between the Restoration Interface Processor (RIP) circuit packs in adjacent LambdaRouter™ All Optical Switch (AOS) 128/256 nodes.

Open Systems Interconnection (OSI)

A seven-layer reference model, a logical structure for network operations standardized by the International Standards Organization (ISO).

Operations Interface

Any interface providing information on the system behavior or control. In LambdaRouter™ All Optical Switch (AOS) 128/256, operations interfaces include equipment LEDs, user panels, Optical Craft Interface, and office alarms.

Operations System (OS)

A central-computer-based system used to provide operations, administration, and maintenance functions. An example of an OS is the Navis™ Optical Element Management System (EMS).

Operator

User of the system with operator-level user privileges.

Optical Channel Alarms

A LambdaRouter™ All Optical Switch (AOS) 128/256 alarm message category that reports input signal failures and are issued against an input port.

Optical Channel Management

A LambdaRouter™ All Optical Switch (AOS) 128/256 application that enables adding, dropping or connecting of services traffic through the network, through optical line systems (OLSs).

Optical Craft Interface (OCI)

The user interface terminal used by craft personnel to communicate with the network element. The Optical Craft Interface runs on a PC with Windows NT® or Windows 2000 and provides graphical user interface (GUI) functionality and Transaction Language 1 (TL1) command entry through cut-through. *Formerly called* WaveStar® CIT (Craft Interface Terminal).

Optical Cross-Connect Interface (OXI)

A LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that performs optical splitting, power monitoring, and rate- and format-independent transport for signals to and from the network element. OXIs are located in the Optical Interface Shelf-Transparent. Each transparent OXI pack provides four input ports (without optical amplifiers) and four output ports.

Optical Cross-Connect Interface-2.5 Gbps Client (OXI-2GC)

A LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that supports 2.5 Gbps SONET/SDH signals (OC-48/STM-16). OXI-2GCs are located in the Optical Interface Shelf-2Gbps (OIS-2G) and the Optical Interface Shelf-Mixed (OIS-MX). Each OXI-2GC provides two input and two output ports.

Optical Cross-Connect Interface-10 Gbps Client (OXI-10GC)

A LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that supports 10 Gbps SONET/SDH signals (OC-192/STM-64). OXI-10GCs are located in the Optical Interface Shelf-10Gbps (OIS-10G) and the Optical Interface Shelf-Mixed (OIS-MX). Each OXI-10GC provides one input and one output port.

Optical Cross-Connect Interface-4A13 (OXI-4A13)

A LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that performs optical splitting, power monitoring, and rate- and format-independent transport for signals to and from the network element. OXI-4A13 circuit packs are located in the Optical Interface Shelf-Transparent. Each OXI-4A13 pack provides four input ports (optical amplifiers in the 1310 nm band) and four output ports.

Optical Cross-Connect Interface-4A15 (OXI-4A15)

A LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that performs optical splitting, power monitoring, and rate- and format-independent transport for signals to and from the network element. OXI-4A15 circuit packs are located in the Optical Interface Shelf-Transparent. Each OXI-4A15 pack provides four input ports (optical amplifiers in the 1550 nm band) and four output ports.

Optical Interface Shelf

A generic term for any transmission interface shelf used in LambdaRouter™ All Optical Switch (AOS) 128/256, including the OIS-T shelf for transparent circuit packs, the OIS-10G for OXI-10GC circuit packs, the OIS-2G for OXI-2GC circuit packs, and the OIS-MX for a combination of OXI-10GC and OXI-2GC circuit packs.

Optical Interface Shelf-2.5 Gbps (OIS-2G)

The LambdaRouter™ All Optical Switch (AOS) 128/256 transmission interface shelf that contains 32 OXI-2GC optical-electrical-optical circuit packs and two Switch Interface Controllers (SWICs).

Optical Interface Shelf-10 Gbps (OIS-10G)

The LambdaRouter™ All Optical Switch (AOS) 128/256 transmission interface shelf that contains 32 OXI-10GC optical-electrical-optical circuit packs and two Switch Interface Controllers (SWICs).

Optical Interface Shelf/High-Voltage Shelf (OIS/HVS) User Panel

The LambdaRouter™ All Optical Switch (AOS) 128/256 module that receives alarm status information. It provides visual indications of shelf status through LEDs and a means for generating alarm cutoff and LED test interrupts to the shelf Switch Interface Controller (SWIC) circuit packs. ***See also*** System Controller Shelf (SCS) User Panel.

Optical Interface Shelf-Mixed (OIS-MX)

The LambdaRouter™ All Optical Switch (AOS) 128/256 transmission interface shelf that contains a combination of 16 OXI-2GC circuit packs, 16 OXI-10GC circuit packs and two Switch Interface Controllers (SWICs).

Optical Interface Shelf-SDH/SONET (OIS-S)

The LambdaRouter™ All Optical Switch (AOS) 128/256 general shelf type that contains OXI-10GC or OXI-2GC circuit packs, which provide the opaque OC-192/STM-64 and OC-48/STM-16 interfaces between the LambdaRouter™ All Optical Switch (AOS) 128/256 and customer equipment. Each OIS-S contains opaque circuit packs and cannot contain transparent circuit packs.

Optical Interface Shelf-Transparent (OIS-T)

The LambdaRouter™ All Optical Switch (AOS) 128/256 shelf that contains the transparent OXI, OXI-4A13, or OXI-4A15 circuit packs. Each OIS-T contains two Switch Interface Controllers (SWICs) and as many as 32 OXI, OXI-4A13, or OXI-4A15 circuit packs.

Optical Line System (OLS)

Any system using a fiber-optic or other optical technology for transmission.

Optical Loss Budget

The allocation of allowable or necessary signal loss in a transmission system, or signal loss to connection subsections of that system.

Optical Return Loss (ORL)

The power of a signal, reflected back to its source in an optical system.

Optical Translator Unit (OTU)

The WaveStar® OLS 1.6T (400G/800G) module that provides wavelength translation and signal regeneration from or to the line system.

Out of Service (OOS)

A state in which an equipment entity is not allowed or is incapable of providing its intended function.

P Parameter

A variable that is given a value for a specified application, or a constant, variable, or expression that is used to pass values between components.

Performance Management

The activities necessary to provision the system, ports, and profiles used in performance monitoring.

Performance Monitoring

The monitoring of signal transmission on SONET and/or SDH interfaces in order to ensure that the desired quality of service is provided. When enabled, performance monitoring data is continuously collected and processed using threshold profiles associated with each port.

Personal Computer Memory Card International Association (PCMCIA) card

Non-volatile memory in a form similar to a floppy disk. LambdaRouter™ All Optical Switch (AOS) 128/256 program and configuration data are stored on a PCMCIA card in the MEM circuit packs.

Personality Module (PMOD)

Modules that provide two OC-48 port connections for Restoration Interface Processor (RIP) circuit packs. Up to two Personality Modules may be mounted on each RIP circuit pack.

Point-to-Point Cross-Connection

A duplex cross-connection from a single input point to a single output point. It can be either one-way or two-way.

Polarization Mode Dispersion (PMD)

Output pulse broadening due to random coupling of the two polarization modes in an optical fiber.

Port

A physical transmission interface, comprising both an input and an output, which may be used to carry traffic between network elements. (*Also called* line. Port emphasizes the physical interface, and line emphasizes the interconnection. Either may be used to identify the signal being carried.)

Port Link List

A list that provides the results of automatic port neighbor discovery or port neighbor provisioning parameters, including the status of the port link.

Port Pack

See Port Unit.

Port State Provisioning

A feature that allows a user to set the port state to in-service or out-of-service.

Port Unit (PU)

A transmission circuit pack that receives and transmits optical signals. The OXI, OXI-4A13, OXI-4A15, OXI-10GC, and OXI-2GC are the LambdaRouter™ All Optical Switch (AOS) 128/256 port units.

Power Filter Voltage Protection (PFVP) Unit

A LambdaRouter™ All Optical Switch (AOS) 128/256 unit that receives power supply current, suppresses high-frequency emissions, and passes current through the backplane to the circuit packs. This unit also disconnects current through the power source when input voltage falls below an acceptable level, or when a short circuit occurs. PFVPs are located on the Switch Shelf, Optical Interface Shelves, and System Controller Shelf. In the OIS-10G and OIS-2G, the PFVP has an internal circuit breaker.

Pre-provisioning

The process by which a user specifies parameter values for an entity before all of the equipment is present. These parameters are stored in non-volatile memory (NVM).

Primary Non-Volatile Memory (PRI MEM)

A non-volatile MEM circuit pack designated as the primary storage device for the LambdaRouter™ All Optical Switch (AOS) 128/256. ***See also*** Memory.

Privilege Code

See User Privilege Code.

Privileged User

An Optical Craft Interface user login with access to all user capabilities, including those that are service-affecting, with the exception of security-related capabilities.

Program

The executable software code that controls the LambdaRouter™ All Optical Switch (AOS) 128/256 network element or Optical Craft Interface.

Protection

Extra capacity (channels, circuit packs) in power or control equipment that is intended to be used not for service but rather as backup for equipment failures. In active and standby contexts, protection is used to describe a function that at power-up becomes standby.

Protection Group

Protection switching configuration. Within a protection architecture, one working function is protected by one protection function. LambdaRouter™ All Optical Switch (AOS) 128/256 supports protection switching with a System Controller Protection Group, High-Voltage Shelf Controller Protection Group, and Optical Interface Shelf Protection Group. ***See also*** Revertive Protection Switching; Non-Revertive Protection Switching.

Protection Switch Activity Log

A time-stamped list of LambdaRouter™ All Optical Switch (AOS) 128/256 protection switching activity that has occurred within the network element. Facility, equipment, and synchronization-related switching activity is covered. The log includes the protection group ID and the type of protection switch (manual, forced, clear, or automatic).

Protection Switching

LambdaRouter™ All Optical Switch (AOS) 128/256 capability to automatically switch to standby or protection circuitry in the event of failure. A manual or forced protection switch may also be initiated as part of operator fault isolation procedures.

Provisioned (PROV)

Indication that a circuit pack is ready to perform its intended function. A provisioned circuit pack can be active (ACT), in-service (IS), standby (STBY), or out-of-service (OOS).

Provisioning

The process of assigning values to a set of variable parameters of the system (or any of its subsystems) to enable or facilitate the expected use of the system (or subsystem). Provisioning of system components includes the creation of a software representation of the component and/or a record of its parameter values, as well as actual modification of the component parameters. Provisioning can be automatic or initialized by manual command. *See also* Auto-Provisioning; Manual Provisioning and Deprovisioning; Pre-Provisioning.

Q Quality of Service (QoS)

The performance specification of a communications channel.

Quality of Service (QoS) Alarm

A LambdaRouter™ All Optical Switch (AOS) 128/256 alarm message category of alarms that are issued with respect to performance monitoring threshold crossing alerts. Quality of Service alarms are issued for a port.

R Rapid Network Restoration

A LambdaRouter™ All Optical Switch (AOS) 128/256 application that enables speedy restoration of services via alternate paths by removing the need for manual recabling operations. LambdaRouter™ All Optical Switch (AOS) 128/256 offers 1+1 pre-provisioned network restoration, and auto re-route mesh restoration when used with the LambdaRouter™ Optical Network Navigation System (ONNS).

Rapid Service Provisioning

A LambdaRouter™ All Optical Switch (AOS) 128/256 application that enables speedy provisioning of optical-layer service, eliminating the need to dispatch craft personnel for manual facility interconnections.

Receive-Direction

The signal direction toward the network element.

Recovery

A predefined process, in response to communication, equipment, or processing failure, that results in a return to normal operation of the network element.

Recovery after Power Failure

The LambdaRouter™ All Optical Switch (AOS) 128/256 capability to automatically reset the system after power failure without user intervention, when input voltage rises above a pre-set level. The system returns to its provisioned state prior to the failure.

Remote Network Element

Any network element (NE) that is connected to the NE under consideration. *Also called* Far End.

Remote Provisioning

A feature allowing the user to provision from a remote location through a managing system and LAN.

Reports Only User

An Optical Craft Interface user type with permissions to access only those capabilities that retrieve information from the system but do not modify the system.

Restoration Controller (RC)

The LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that provides the interface between the Navis™ Optical Network Management System (NMS) and the Control Communications Network (CCN) for managing the path setup process. The RC circuit pack is also the location where path computation (routing) is performed in response either to requests for path setup and tear-down (from Navis™ Optical NMS), or in response to a path failure in order to initiate a mesh auto-reroute service restoration. Two RC circuit packs are located in the System Controller Shelf (SCS), and each provides one external 10BaseT ethernet connector, one external 100BaseT ethernet connector, and one internal four-port 10/100BaseT ethernet hub.

Restoration Interface Processor (RIP)

The LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that provides Control Communications Network (CCN) connectivity between each LambdaRouter™ All Optical Switch (AOS) 128/256 in a domain. The CCN application runs on the RIP circuit packs. Two RIP circuit packs are located in the System Controller Shelf (SCS), and each provides one internal four-port 10/100BaseT ethernet hub and one external 10/100BaseT ethernet hub. Each RIP circuit pack may also be equipped with up to two Personality Modules.

Revertive Protection Switching

The ability of a working and protection function to revert autonomously to active and standby, respectively, upon the repair of the failure that caused a protection switch. **See also** Non-Revertive Protection Switching.

S SanDisk

A vendor Personal Computer Memory Card International Association (PCMCIA) card; a pre-formatted SanDisk is used in LambdaRouter™ All Optical Switch (AOS) 128/256 for software installation. **See also** Personal Computer Memory Card International Association (PCMCIA) card.

Scripting

The Optical Craft Interface feature that supports the ability for the user to create and edit Transaction Language 1 (TL1) scripts and save them for later use.

Secondary Non-Volatile Memory (SEC MEM)

A MEM circuit pack designated as the secondary storage device for LambdaRouter™ All Optical Switch (AOS) 128/256. **See also** Memory.

Security Administrator

1. An Optical Craft Interface or managing system user who has been assigned a security privilege level of S5 and can view existing user logins, add new users and assign user privileges, delete users, change passwords for any user, and modify user privileges. 2. A LambdaRouter™ All Optical Switch (AOS) 128/256 user with a privilege level of S5 who can view existing user logins, view a list of users currently logged into the network element, add new users and assign user privileges, delete users, and change passwords for any user.

Security Alarm

A LambdaRouter™ All Optical Switch (AOS) 128/256 alarm message category of alarms that are issued with respect to login events and managing system access, and that indicate an intruder alert condition. Security alarms are issued for the system.

Security Log

A LambdaRouter™ All Optical Switch (AOS) 128/256 file of all security-related events. It is stored in non-volatile memory of the network element.

Security Management

In LambdaRouter™ All Optical Switch (AOS) 128/256, the administration of user accounts (login IDs, passwords, and privilege levels) and the monitoring of system security to insure that only valid users can perform allowed actions and receive authorized information.

Serial Number (SLN, SN)

A circuit pack identifier that is stored in Electrically Erasable Programmable Read-Only Memory (EEPROM).

Serial Number Identification Port (SNIP)

A Switch Shelf interface to the High-Voltage Shelf that provides the unique 16-bit serial number of the Switch Shelf.

Series Number (SSN)

A circuit pack identifier that is stored in Electrically Erasable Programmable Read-Only Memory (EEPROM).

Session

A logical connection from the Optical Craft Interface or other managing system to a network element.

Shelf

A set of circuit packs sharing a common physical housing, power source, electronic or opto-electronic backplane, and shelf controller.

Shelf View

An Optical Craft Interface graphical depiction of one shelf. Selectable objects in this view are the shelf, the slots/circuit packs, and the ports.

Short Reach

A standard for optics, concerning transmitters and receivers in a system, that ensures that transmission can be maintained for short distances (10 km). *See also* Long Reach; Intermediate Reach.

Signal Degrade (SD)

A condition that triggers automatic protection switching when the line bit error rate (B2) exceeds a user-provisionable threshold.

Signal Fail (SF)

Loss of signal (LOS), loss of frame (LOF), Alarm Indication Signal-Line (AIS-L), or line bit error rate (B2) greater than the user-provisionable threshold.

Signal Injection

The capability for a LambdaRouter™ All Optical Switch (AOS) 128/256 OEO input port to inject a test signal with a payload containing either all 1s (AIS-L) or all 0s (UNEQ) when requested by using a test access command. Signal injection is possible only when the input port is not detecting an incoming signal. A j0-byte sequence may be inserted in an injected test signal.

Signal Maintenance

In LambdaRouter™ All Optical Switch (AOS) 128/256, the capability of the system to detect the presence or absence of optical power at input and output ports, monitor and react to maintenance signals, generate appropriate alarms, and perform fabric-path protection switching.

Signal Rate

An attribute that defines the bit rate and format of a signal.

Single-Mode Fiber (SM)

An 8.3-μ diameter low-loss, long-span optical fiber typically operating at either 1310 nm, 1550 nm, or both.

Site Address

The unique address for a network element.

Slip

A repetition or deletion of a block of bits in a bit-stream, caused by a sufficiently large discrepancy in the read and write rates at a receiver buffer.

Slot

A physical position in a shelf designed to hold a circuit pack and connect it to the backplane.

Slot Provisioned State

A transition state for circuit pack insertion. A slot will transition from empty to equipped when the circuit pack insertion is detected and validated, and the hardware registers are loaded. The slot remains so provisioned until the object is deprovisioned.

Slot State Provisioning

Modification of a slot state through a user command.

Software Backup

The process of saving an image of the current network element (NE) databases, which are contained in NE primary non-volatile memory (NVM, PRI MEM), to SEC MEM or remote storage.

Software Delivery

In LambdaRouter™ All Optical Switch (AOS) 128/256, the delivery to a customer of network element generic software, Optical Craft Interface software, factory data, and utilities on a CD-ROM, with accompanying documentation in hard copy and on CD-ROM.

Software Failure

A data or results error detected by the software itself during execution.

Software ID

A number that provides the software version information for the system.

Software Installation

The process of interpreting and unpacking the binary data program that was downloaded to a network element non-volatile memory (NVM) and copying the constituent data items to their designated locations in the network element.

Software Management

The activities necessary to download, upgrade, install, back up, and restore the generic software and provisionable data on the Optical Craft Interface and network element.

Software Upgrade

The process that installs a new release of software.

Standby (STBY)

A state in which a circuit pack is in service but is not providing service functions. The circuit pack is ready to be used to replace a similar circuit pack either by protection or by duplex switching, in hot standby or cold standby functions. *See also* Active; Cold Standby; Hot Standby.

Standing Condition

The declaration type of a notification message (event or alarm) that requires a Clear message. *See also* Transient Condition.

State

A software parameter indicating the current autonomous and user-defined limitations on the behavior of the entity in question.

Status

The indication of the instantaneous condition of an equipment entity.

Strictly Non-Blocking Fabric (NBF)

Architecture that ensures unhindered signal throughput. Strictly NBF is a fabric architecture such that any incoming signal can be directed to any idle output port, without the need to rearrange any of the existing cross-connections, and without blocking, degrading, or otherwise affecting any of the remaining signals through the system.

Subnetwork

A group of interconnected/interrelated network elements.

Superuser

1. An Optical Craft Interface user type with highest level of permissions to access the system. Up to two superusers logins and passwords may be created on the Optical Craft Interface. 2. A LambdaRouter™ All Optical Switch (AOS) 128/256 user with full privileges in all functional categories. Two superuser logins and passwords are pre-installed on the system.

Suppression

A process by which alarms that have been identified as an “effect” are not displayed to a user. Alarms can be suppressed through user provisioning.

Switch Bay

In LambdaRouter™ All Optical Switch (AOS) 128/256, the frame that houses the Switch Shelf, High-Voltage Shelf, and optical interface shelf, either the OIS-T, OIS-10G, OIS-2G, or OIS-MX.

Switch Interface Cable (SI cable)

Cable that connects the Optical Interface Shelf backplane and the Fiber Distribution Panel.

Switch Interface Capacity

The capacity in number of optical interconnection links between any one of the transmission interface shelves and the cross-connection fabric. This term applies to bidirectional capacity (for example, switch interface capacity of 128 corresponds to 128 optical links in each direction).

Switch Interface Controller (SWIC, LGH1 and LGH1AE)

A LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that provides control functions for optical cross-connect interface or High-Voltage Digital-to-Analog Converter (HVDAC) functions, and a control interface to the Control Bay. There are two types of SWICs. The SWIC for the Optical Interface Shelf-Transparent (OIS-T) and High-Voltage Shelf (HVS) is coded LGH1 and is referred to in software as oswic when in an OIS-T and hswic when in an HVS. The SWIC for the Optical Interface Shelf-SDH/SONET (OIS-S) is coded LGH1AE and is referred to in software as oswic.

Switch Interface Point (SWIP)

A Micro-electromechanical System (MEMS) mirror, the dedicated optical interface (connector and collimator) connected to it, and the dedicated electrical control interface (electrodes, cable connectors) for its operation. Users of LambdaRouter™ All Optical Switch (AOS) 128/256 software will view it as a single object in the system.

Switch Interface Point (SWIP) Maintenance Group (SWMG)

A grouping of Switch Interface Points (SWIPs) that are treated as a unit for switch maintenance. This grouping is sometimes referred to as *switch side*.

Switch Request States

State that is defined for protection groups: Forced Switch, Manual Switch Failure, and No Request.

Switch Shelf (SWS)

The LambdaRouter™ All Optical Switch (AOS) 128/256 component that contains the Micro-electromechanical System (MEMS) mirror arrays, optical lenses, fibers and connectors, also referred to as switch fabric.

Synchronization

The function that assures accuracy and stability of clocks used to transmit data in digital networks. In LambdaRouter™ All Optical Switch (AOS) 128/256, clocking is used for 10 Gbps and 2.5 Gbps signals that go through optical-electrical-optical conversion for performance monitoring. The clocking is extracted from the ingress signal and used to transmit egress signal (through timing). An internal clock is used to transmit signal defect (AIS) when the clock from the ingress signal is not available. Synchronization is done on the OXI-10GC and OXI-2GC packs.

Synchronous Digital Hierarchy (SDH)

A hierarchical set of digital transport structures, standardized for the transport of suitable adapted payloads over transmission networks.

Synchronous Optical Network (SONET)

The North American standard for the rates and formats that define optical signals and their constituents.

SYS50D

The LambdaRouter™ All Optical Switch (AOS) 128/256 circuit pack that provides the main system control functions. Duplex SYS50Ds are located in the System Controller Shelf and operate as an active/standby pair.

System Controller Complex

The grouping of a SYS50D circuit pack, Restoration Controller (RC), and an External Interface (EI) circuit pack, treated as a unit for controller maintenance and protection switching.

System Controller Shelf (SCS)

The middle shelf of the LambdaRouter™ All Optical Switch (AOS) 128/256 Control Bay. It contains the SYS50D and other control packs.

System Controller Shelf (SCS) User Panel

The LambdaRouter™ All Optical Switch (AOS) 128/256 module that monitors the temperature of the shelf, receives alarm status information, and provides visual indications of shelf status through LEDs. The SCS User Panel provides an ESD wrist strap ground connector and a port used to connect an Optical Craft Interface to the system. An NE Acty LED indicates software download, loopback, or a forced or manual switch.

System Logs

Autonomous records of system events that can be retrieved by user commands. The system provides a User Session Activity Log, Database Change Log, Alarm Log, Security Activity Log, and Protection Switch Log. Each log has a capacity to store 72 hours of data.

System View

An Optical Craft Interface graphical depiction of the entire network element. Selectable objects in this view are bays and shelves in the network element.

T Target Identifier (TID)

A provisionable parameter used to identify a particular network element within a network. The parameter is a case-insensitive ASCII character string of up to 20 characters. The allowed characters are the letters **A** through **Z** and **a** through **z**, the numbers **0** through **9**, and the special characters hyphen (-) and forward slash (/). The string must not begin or end with a hyphen.

Template

A collection of parameters that define a specific network element configuration.

Terminal Access

Accessing and provisioning a LambdaRouter™ All Optical Switch (AOS) 128/256 using a personal computer or dumb terminal connected to the RS-232 port located on the back of the LambdaRouter™ All Optical Switch (AOS) 128/256 System Controller Shelf (SCS). Provisioning is performed using TL1 commands.

Test Access Cross-Connection

A type of cross-connection that is used for maintenance purposes to monitor the transmission quality of live traffic or an injected signal. Test Access cross-connections involve temporarily cross-connecting an optical signal from an input port, through a switch fabric side, to an output port that has been selected to serve as a test access monitoring port. *See also* MONE Test Mode; MONEF Test Mode; MONF Test Mode.

Test Access Monitoring (TAM) Port

The output port of a Test Access cross-connection.

Threshold Crossing Alert

Used in performance monitoring. A notification that a monitored parameter has exceeded a threshold value for a port. The generation of threshold crossing alerts can be enabled or disabled independently for each parameter.

Through Timing

Timing derived by the network element from the ingress signal and used to transmit the egress signal.

Transaction Language 1 (TL1)

A machine-to-machine communications language that is a subset of ITU human-to-machine language. TL1 is the interface language between the Optical Craft Interface, Navis™ Optical Element Management System, Navis™ Optical Network Management System, and a LambdaRouter™ All Optical Switch (AOS) 128/256.

Transient Condition

The declaration type of a notification message (event only) that does not require a Clear message. *See also* Standing Condition.

Transmission Control Protocol/Internet Protocol (TCP/IP)

Networking protocols used by LambdaRouter™ All Optical Switch (AOS) 128/256 to interface with a customer's Intraoffice Local Area Network (IAO LAN).

Transmission Interface

Also known as facility interface. The components that provide connectivity between external Optical Line Systems (OLSs) or client network elements (NEs) and the LambdaRouter™ All Optical Switch (AOS) 128/256. The LambdaRouter™ All Optical Switch (AOS) 128/256 transmission interfaces are the OXI, OXI-4A13, and OXI4A15 circuit packs containing transparent bidirectional ports, and the OXI-10GC and OXI-2GC circuit packs containing opaque bidirectional ports. Transmission interface functions include receipt, splitting, selection, and output of signals.

Transmission Interface Shelf

See Optical Interface Shelf entries.

Transmit-Direction

The direction away from the network element.

Transparency

Bit-rate and format independence. The OXI, OXI-4A13, and OXI4A15 circuit packs are the LambdaRouter™ All Optical Switch (AOS) 128/256 transparent interfaces.

Trouble-Clearing

Activity to correct an alarmed condition.

Two-Way Bridge/Merge Cross-Connection

A two-way cross-connection configuration that consists of a bridge cross-connection in one direction, and a merge cross-connection in the other direction.

Two-Way Double Merge Cross-Connection

A complex two-way cross-connection configuration that consists of two one-way double merge cross-connections, one in each direction of the two-way.

Two-Way Point-to-Point Cross-Connection

Two cross-connection duplex legs that interconnect two input ports and two output ports. A pair of input and output ports used for opposite directions may or may not have the same access identifier (AID). Each of the two cross-connection legs can be established by a single command to the network element and must have a compatible transmission rate.

Two-Way Simplex Cross-Connection

Two simplex cross-connection legs that interconnect two input ports and two output ports. A pair of input and output ports used for opposite directions may or may not have the same access identifier (AID). A pair of two-way simplex cross-connection legs can be added to or deleted from an existing cross-connection to form another type of cross-connection configuration. For example, a two-way simplex cross-connection can be added to an existing two-way point-to-point cross-connection to form a two-way bridge/merge cross connection.

U Unequipped (UNEQ) Signal

An indication that an incoming signal has valid SDH/SONET Section/Regenerator Section overhead with a Synchronous Payload Envelope (SPE) comprising all zeroes.

Unit Interface Appliance (UIA)

The physical device used by the person who runs Optical Craft Interface software and accesses network elements. The LambdaRouter™ All Optical Switch (AOS) 128/256 UIA is a PC or laptop with Microsoft Windows NT or Windows 2000.

Unit Interface (UI) Cable

The specified cable type used in the interface between the System Controller Shelf circuit packs and the Switch Interface Controller (SWIC) circuit packs.

Universal Coordinated Time (UTC)

Formerly called Greenwich Mean Time (GMT). A time-zone-independent indication of an event. The local time can be calculated from the Universal Coordinated Time.

Upgrade Kit

Orderable components that enable either a lower capacity LambdaRouter™ All Optical Switch (AOS) 128/256 system to be upgraded to a higher capacity LambdaRouter™ All Optical Switch (AOS) 128/256 system, or an earlier version/release system to be upgraded to a later version/release system.

Upload

The process of transferring files from a network element to a managing system. LambdaRouter™ All Optical Switch (AOS) 128/256 can only upload data. *See also* Download.

Upstream

At or toward the source of the considered transmission stream.

User ID (UID)

An Optical Craft Interface or LambdaRouter™ All Optical Switch (AOS) 128/256 user code that comprises one to ten alphanumeric, case-sensitive characters. Any sequence of characters is allowed, except as follows: The keyword ALL by itself, in any combination of uppercase and lowercase (that is, ALL All, all, and so on), is not allowed as a valid user ID. A user ID containing ALL as a substring, however, in any combination of uppercase and lowercase (such as tallman), is allowed as a valid user ID.

User to Network Interface (UNI)

An IP network interface that allows automated network path setup and teardown to be initiated from an IP router or other client that is external to the LambdaRouter™ All Optical Switch (AOS) 128/256 network.

User Notification Registration List

A security feature that determines what messages a LambdaRouter™ All Optical Switch (AOS) 128/256 user is allowed to receive.

User Panels

Components on each shelf of the LambdaRouter™ All Optical Switch (AOS) 128/256 that monitor the temperature of shelves, receive alarm status information, and provide visual indications of shelf status through LEDs. These panels also provide a means for generating alarm cutoff and LED test interrupts to the shelf Switch Interface Controller (SWIC) circuit packs.

In addition to the status LEDs, the System Controller Shelf user panel provides an ESD wrist strap ground connector and a port used to connect an Optical Craft Interface to the system.

Temperature monitoring, ESD wrist strap ground connectors, and Optical Craft Interface ports are not included in the user panels for the Optical Interface Shelves and High-Voltage Shelves. They also do not support near end (NE) or far end (FE) alarms.

User Privilege Code (UPC)

Permissions assigned to each user when a login is created or modified on either the Optical Craft Interface or LambdaRouter™ All Optical Switch (AOS) 128/256. The UPC is an alphanumeric code of one or two letters that identify the functional category of commands the user may access, and a single digit that indicates the user authorization level for that functional category. UPCs assigned to login IDs on the Optical Craft Interface do not necessarily apply to LambdaRouter™ All Optical Switch (AOS) 128/256.

User Record

Data associated with each user on an Optical Craft Interface or other managing system and on the LambdaRouter™ All Optical Switch (AOS) 128/256 network element (NE). Each record (separate on the managing system and the NE) comprises a login ID, password, user type, user privilege level, user priority level (NE only), and User Notification Registration list (NE only).

User Session Activity Log

A LambdaRouter™ All Optical Switch (AOS) 128/256 file of all user-initiated commands from login through logout.

User Type

Assigned privilege codes for Optical Craft Interface users that determine which commands and capabilities the user may access. Predefined user types are Superuser, Privileged User, General User, Maintenance User, and Reports Only User. Users may also be assigned a type of "Other." The default user type is "Reports Only."

V Very Short Reach (VSR)

A standard for optics (as defined in ITU-T Recommendation G.693), concerning transmitters and receivers in a system, that insures that transmission can be maintained for very short distances (up to 2 km). *See also* Long Reach; Intermediate Reach; Short Reach.

Virtual Private Network (VPN)

A leased network that is part of a larger network but operated independently.

Volatile Memory

A type of memory that is lost if electrical power is interrupted.

W Wander

The long-term variation of the significant instants of a digital signal from their ideal positions in time. Wander is mainly generated by the variation in transmission characteristics of the media and equipment, which includes disruption in synchronization reference distribution. Wander is a potential source of slips in synchronous networks. *See also* Jitter.

Wavelength Division Multiplexing (WDM)

A means of increasing the information-carrying capacity of an optical fiber by simultaneously transmitting signals at different wavelengths.

Wavelength Range of Operation

A range within the infrared wavelength spectrum in which the system is designed to operate.

Wavelength Window

A standard range of wavelengths in which the intrinsic transmission loss of an optical fiber is low enough to be usable for optical transmission systems. The standard wavelength windows are approximately 850 nm (not used in telecommunications), 1310 nm, and 1550 nm.

WaveStar® CIT (Craft Interface Terminal)

See Optical Craft Interface (OCI).

WaveStar® NMS (Network Management System)

See Navis™ Optical Network Management System (NMS).

WaveStar® OLS (Optical Line System)

A Lucent Technologies lightwave transmission system, for example, WaveStar® OLS 1.6T. Using Dense Wave Division Multiplexing technology, the system combines multiple signals of different wavelengths, transmits the resulting signal over a single fiber, and then demultiplexes the signal at the receiving end.

WaveStar® SNMS (SubNetwork Management System)

See Navis™ Optical Element Management System (EMS).

Wizard

Form of user assistance that automates a task through a dialog with the user.

Working

Descriptor for a physical entity. In revertive switching, the working entity carries service under normal operation. In non-revertive switching the descriptor has no particular meaning. In active and standby operations, **working** indicates the function, when present and healthy, that will become active at power-up. ***See also*** Protection; Revertive Protection Switching; Non-Revertive Protection Switching.



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