

Operational Traps

This chapter describes operational traps. If you need help in interpreting these traps, contact your customer service representative.

Traps are grouped alphabetically into sections in this chapter according to the software module in which they occur. Within each section, traps are listed in numerical order.

Within some software modules, gaps exist in the trap numbering sequence. This is because traps have been added or removed during the product life cycle. For instance, LCC traps begin with LCC_4 because LCC_1, LCC_2, and LCC_3 have been removed.

Comment Traps

This section lists traps generated by use of the **comment** command.

Trap Name	COMMENT_1001
Trap Text	<p><string specified by user></p> <p>When the user is a human operator, the string can say anything. When the trap is invoked by scripts that run during installation, the string is one of the following:</p> <ol style="list-style-type: none"> 1 swchgver: Rebooting the network processor 2 WARNING: distribution to standby network processor got error. Consult your release note for more information. 3 VALIDATE ERROR: Inconsistencies in system installation: see trap log for more details
Description	<p>This trap is generated by an operator, a support engineer, or a system script using the comment command. The installation scripts use this trap to notify you of system events associated with the installation of new hardware or software. (See the <i>LightStream 2020 NP O/S Reference Manual</i> for more information on the comment command.)</p>
Action	<p>When the trap is invoked by a human operator, it will include a suggested action. When the trap is invoked by a script that runs during installation, match the trap text above to the action below:</p> <ol style="list-style-type: none"> 1 No action is required. 2 Take the action suggested by the trap message. 3 Review the trap log and take the actions recommended for the informational traps you find there.

FCLoad Traps

This section lists traps for the FCLoad (function card load) module. FCLoad may be invoked by the system during the installation of new system software (as described in the *LightStream 2020 Upgrade Procedures for Platform Software*), and by the operator during the installation of new line cards (as described in the *LightStream 2020 Hardware Reference & Troubleshooting Guide*).

Trap Name	FCLOAD_2
Trap Text	Slot <slot#>: loading flash image (<flash image name>)
Description	This trap is generated when a new flash image is loaded into the indicated card by an operator. Loading flash may be necessary when you are installing a card in an existing system (see the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i>).
Related Traps	FCLOAD_2021, FCLOAD_2011, FCLOAD_2012
Action	None.

Trap Name	FCLOAD_20
Trap Text	Slot <slot#>: flash load error
Description	This trap is generated when an error occurs during load of flash memory.
Related Traps	FCLOAD_2020, FCLOAD_2021, FCLOAD_2022, FCLOAD_2023
Action	Check the trap log for the related informational traps, which provide more detailed information about the error. Take the actions recommended for the related traps.

GIDD Traps

This section lists traps for the Global Information Distribution Daemon (GIDD).

Trap Name	GIDD_1001
Trap Text	Unable to dynamically allocate memory:<text>
Description	This trap indicates that the node has run out of memory.
Causes	<p>Generally, this trap is generated when the number of end stations in the network exceeds 10,000, the maximum number of end stations and IP addresses used by the ARP cache per LS2020.</p> <p>There are also a few instances when this trap is generated because of a lack of free memory on the NP.</p>

Action	<p>If the number of end stations in the network exceeds 10,000, you need to reduce the number of host addresses seen by the LS2020 network to a value below 10,000.</p> <p>If this trap is displayed for a network with less than 10,000 end stations, you must reduce the number of CLI processes running on the NP that generated the trap.</p> <p>Step 1 From the bash prompt of a root login, display the list of processes running on that NP by issuing the ps -ax command. There should be only one instance of the CLI running. If that is not the case, issue the quit command at the CLI prompt.</p> <p>Step 2 If the number of CLI processes is one or none and this trap continues to be generated in an LS2020 network with fewer than 10,000 end stations, capture the output display of several iterations of the ps -ax command and contact Cisco customer service.</p>
Trap Name	GIDD_1003
Trap Text	Duplicate ATM address <ATM address><EIA1><EIA2>
Description	This trap indicates that two ports have been assigned the same ATM address.
Causes	This trap is generated if the user has established two identical ATM addresses in the domain.
Action	Procedures for changing the ATM address can be found in the <i>LightStream 2020 Configuration Guide</i> and the <i>LightStream 2020 CLI Reference Manual</i> .

LCC Traps

This section lists traps for the Line Card Control (LCC) process.

Trap Name	LCC_4
Trap Text	Warning: attempt to configure an incompatible protocol on port <port#>
Description	This trap indicates that an attempt was made to configure an edge port on a trunk card or a trunk port on an edge card, but the change has been rejected by the software.
Causes	This message is generated only when an attempt is made to change to an incompatible port type on a port that is <i>not</i> the lowest-numbered configured port. Card type (trunk or edge) is derived from the lowest-numbered configured port on the card: if the lowest-numbered port is an edge, then the card is an edge. Therefore, if an attempt is made to change a port other than the lowest-numbered port, the change is rejected and the LCC_4 trap is generated. If the change is made to the lowest-numbered configured port, the LCC_5 trap is generated.
Action	To change the port type, reconfigure the card type. See the <i>LightStream 2020 Configuration Guide</i> for information on configuring cards.

Trap Name	LCC_5
Trap Text	Warning: port protocol overriding configured card type on port <port#> - card will be rebooted
Description	This trap indicates that the lowest-numbered port on the card was changed from an edge to a trunk or from a trunk to an edge. Because card type (trunk or edge) is derived from the type of the lowest-numbered configured port, the line card control process automatically updates the EEPROM to reflect the change and the card is rebooted. When the line card restarts, it should reflect the change to the lowest-numbered port.
Causes	<p>The lowest-numbered configured port may have been changed to a different type (either from edge to trunk or from trunk to edge.)</p> <p>This trap can also be generated when a new line card is inserted in a chassis, if the EEPROM setting as shipped from manufacturing is different from the configured setting.</p>
Action	<p>This problem is self-correcting. The line card should automatically reconfigure and restart with no operator intervention.</p> <p>If this trap recurs, run diagnostics on the line card. (Refer to the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for information.)</p>

Trap Name	LCC_10
Trap Text	<p>Warning LC reported error <error> on port <port#> where <error> = one of the following (see “Description” and “Action” section of table for meaning of corresponding superscript):</p> <p>Illegal Command¹ Illegal Table¹ No Resources⁵ Tsu Hardware² Illegal Alloc¹ Unknown Task¹ Unknown Table¹ Bad Port¹ Data Overflow¹ Port In Use⁶ Illegal Bitrate³ Illegal Index¹ Illegal Framesize³ Illegal NIT⁷ Eeprom Not Initialized¹ Illegal Value¹ Mismatched Cards⁴ Unspecified¹</p>

Description	<p>Depending on <error> type, this trap indicates one of the following:</p> <ol style="list-style-type: none"> 1 There is a software problem. 2 There is a hardware problem on the line card. 3 There is a configuration problem. 4 There is an incompatible line card/access card pair. 5 There is a temporary resource shortage (for example, the system may have run out of buffers used to communicate with the line card). 6 There is a temporary resource shortage from which the system will recover automatically. 7 An illegal network interface type (NIT) or loop mode is specified for the port. (The legal network interface types are DTE, DCE, and DCE_tloop.)
Action	<ol style="list-style-type: none"> 1 Call your customer service representative. 2 Troubleshoot the line card hardware. (See the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for instructions.) 3 Check the setting of the attribute. (See the <i>LightStream 2020 Configuration Guide</i>.) If the attribute value is within the legal range, contact your customer service representative. 4 Check your line card and access card for the port, and change the appropriate card. 5 Re-issue the most recent configuration change to the card in question. (For example, if you have recently enabled or disabled a port or created new circuits, you must re-issue the command you used or update the configuration again, as appropriate.) 6 No action is required. 7 Reset the port using the CLI commands set port <card#.port#> inactive and set port <card#.port#> active.
Trap Name	LCC_11
Trap Text	Warning LC reported error illegal physical port type on port <port#>
Description	This trap indicates that the physical port type is not on the list of supported port types for the line card.
Causes	<p>For low-speed modules: jumper settings on the access card may be incorrect.</p> <p>For all module types: the version of software running on the line card may not support the hardware. (This could happen, for instance, if you installed a new type of access card without first updating your line card software.)</p>
Action	<p>For low-speed modules: check jumper settings on the access card and correct if needed. See the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for information on setting jumpers.</p> <p>For all module types: check the line card software version by examining the Description field displayed when you enter the CLI show port <port#> all command. Upgrade your software if necessary. See the <i>LightStream 2020 Network Operations Guide</i> for information on the show port command. See the relevant release note for information on upgrading your software.</p>

Trap Name	LCC_12
Trap Text	Node <node name> Port <port#> entering internal loop mode
Description	This trap reports that the port has entered internal loop mode.
Causes	The CLI set port <port#> loop command has been issued to run an internal loopback test on the port. (See the <i>LightStream 2020 Network Operations Guide</i> for information on looping ports.)
Action	None.
Trap Name	LCC_14
Trap Text	Node <node name> Port <port#> entering remote loop mode
Description	This trap reports that the port has entered remote loop mode.
Causes	The CLI set port <port#> loop command has been issued to run a remote loopback test on the port. (See the <i>LightStream 2020 Network Operations Guide</i> for more information on looping ports.)
Action	None.
Trap Name	LCC_15
Trap Text	Node <node name> Port <port#> unlooped
Description	This trap reports that the port has exited loop mode.
Causes	The CLI set port <port#> unloop command has been issued to stop the loopback test on the port. (See the <i>LightStream 2020 Network Operations Guide</i> for information on unlooping ports.)
Action	None.
Trap Name	LCC_16
Trap Text	Node <node name> Port <port#> is experiencing a high error rate
Description	This trap reports that the port has a high receive or transmit error rate.
Causes	This trap is sent when a port's receive or transmit error rate exceeds its error threshold.
Action	Examine the node to determine why the error rate is high. See the <i>LightStream 2020 Network Operations Guide</i> and the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for more information on possible causes.

Trap Name	LCC_18
Trap Text	Node <node name> Card <slot#> has inaccessible or invalid EEPROM
Description	This trap indicates that there is a problem with the card's EEPROM.
Causes	EEPROM may have been physically damaged or removed. EEPROM contents may have been corrupted.
Action	Contact your customer service representative.

MMA Traps

This section describes traps generated by the master management agent (MMA).

Trap Name	MMA_1
Trap Text	Reloading configuration database.
Description	This trap indicates that the MMA has read the local configuration database on the NP hard disk and is distributing the information to relevant software processes.
Causes	The MMA reads the local configuration database when the system is started up or rebooted, the NP is rebooted, the backup NP becomes primary, or when the MMA process itself is restarted due to a process error.
Action	None.

NDD Traps

This section lists traps for the Neighborhood Discovery Daemon (NDD).

Trap Name	NDD_1
Trap Text	Network Processor <slot#> becoming primary NP.
Description	This trap is provided for information only. When the system boots, it indicates the slot number of the NP that is operating as the primary NP (if you have two NPs in your system).
Action	None.
Trap Name	NDD_2
Trap Text	Network Processor <slot#> becoming backup NP.
Description	This trap is provided for information only. When the system boots, it indicates the slot number of the NP that is operating as the backup NP (if you have two NPs in your system).
Action	None.

Trap Name	NDD_3
Trap Text	Line Card <node name:slot#> (<card type>) up.
Description	This trap is provided for information only. It indicates that a particular line card has come up.
Action	None.
Trap Name	NDD_4
Trap Text	Line Card <node name:slot#> (<card type>) down (switch up/down failure).
Description	This trap indicates the deactivation or failure of a running line card. The trap can be caused by an operator action such as card removal or deactivation or running diagnostics on the card. It can also be caused by a line card failure.
Action	If the operator didn't provoke the trap, run diagnostics on the specified line card, and replace the card if it fails diagnostics. (Refer to the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for instructions.)
Trap Name	NDD_5
Trap Text	Line Card <node name:slot#> (<card type>) down (ERMP failure <ERMP code>).
Description	<p>This trap indicates the deactivation or failure of a running line card. The trap can be caused by an operator action such as card removal or deactivation or running diagnostics on the card. It can also be caused by a line card failure.</p> <p>ERMP codes that probably indicate a failure or deactivation of the line card:</p> <ul style="list-style-type: none">• 0x401: keepalive-failure The NP stopped receiving messages from the line card.• 0x405: rtx-failure The NP was unable to get a message accepted and acknowledged by the line card.• 0x406: remote-keepalive-failure The NP received a report from the line card that the line card could not receive messages from the NP. <p>Other ERMP codes:</p> <ul style="list-style-type: none">• 0x404: close The device at the remote end of the connection did a controlled close (for example, a neighbor NP rebooted).• 0x403: failure Internal protocol failure. Report this event to your customer service representative.
Action	If the operator did not provoke the trap, run diagnostics on the specified line card, and replace the card if it fails diagnostics. (See the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for instructions.)

Trap Name	NDD_6
Trap Text	System Process <process type> exited unexpectedly (status <value>).
Description	This trap indicates that the specified process exited unexpectedly. NDD will restart the process automatically, or it will reboot the NP to re-initialize the entire system.
Action	Usually, no action is required. If this trap occurs repeatedly, either because different processes exit or because the same process exits multiple times, contact your customer service representative.
Trap Name	NDD_7
Trap Text	Line Card Control Process for <node name: slot#> exited unexpectedly (status <value>).
Description	This trap is provided for information only. The LCC process on the specified card exited unexpectedly. The process will be restarted automatically by NDD.
Action	Usually, no action is required. However, if this trap occurs repeatedly, either because different processes exit or because the same process exits multiple times, contact your customer service representative.
Trap Name	NDD_8
Trap Text	Network Processor <node name: slot#> rebooting (detected failure of primary NP)
Description	In a switch with two NPs, this trap is generated by the backup NP when it notices that the primary, or active, NP is no longer available. After issuing this trap, the backup NP reboots, then returns to service as the node's new primary NP. This is generally followed by an NDD_1 trap.
Action	Troubleshoot the NP that failed. (See the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for instructions.)
Trap Name	NDD_10
Trap Text	Mismatch between programmed chassis id (<ID# from eeprom>) and configured chassis id (<ID# from configuration>)
Description	This trap indicates that the MIB variable chassisId does not match the chassis ID programmed in EEPROMs on the midplane. The chassis ID is programmed into two EEPROMs on the midplane as part of the manufacturing process; the same ID is stored in the configuration database for the chassis.

Causes	The chassis ID has not been configured correctly in the database, or the midplane has been replaced and the correct chassis ID has not been programmed into the midplane EEPROM.
Procedure	<ol style="list-style-type: none"> 1 If you are just starting a new system, verify the chassis ID in the midplane, using the CLI command show tcs <SA SB> midplane. Change the value of the Chassis ID attribute and update the node. (You can change the attribute using the CLI or the LightStream 2020 configurator. See the <i>LightStream 2020 CLI Reference Manual</i> or the <i>LightStream 2020 Configuration Guide</i> for information on changing the Chassis ID attribute.) 2 If you have replaced the midplane, verify that the chassis ID for the replacement midplane has been set to the same value as the chassis ID in the original midplane. (To set the chassis ID in the EEPROM, enter set tcs <SA SB> midplane nodeaddress <chassis ID>. The chassis ID is stored in <i>two</i> EEPROMs on the midplane and they <i>must</i> match. Issue the command twice, once for SA and once for SB. If you have only one switch card, you must issue the command for the slot in which the switch card resides, move the card to the other slot, and issue the command again. (A detailed procedure for setting chassis IDs is provided in the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i>.)
Trap Name	NDD_11
Trap Text	Mismatch between programmed midplane chassis IDs in redundant switches (<chassis ID in slot A> versus <chassis ID in slot B>)
Description	<p>This trap indicates that the two EEPROMs on the midplane contain different chassis ID numbers. It can occur only in a node with two switch cards.</p> <p>The chassis IDs in the two EEPROMs must be identical (but otherwise unique) within the LightStream 2020 network.</p> <p>Cisco Systems, Inc. assigns a chassis ID to every LightStream 2020 chassis. The chassis ID is written to the two EEPROMs in the factory. One EEPROM is connected to and accessible from the switch card in slot A; the other EEPROM is connected to and accessible from the switch card in slot B.</p>
Action	Determine the correct chassis ID and change one or both of the chassis IDs in the EEPROMs so that the two IDs match. For detailed instructions, refer to the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> .

NPIP Traps

This section lists traps for the Network Processor Internet Protocol (NPIP) module that provides IP service.

Trap Name	NPIP_3
Trap Text	configuration error: the internal IP network overlaps with the Ethernet IP network

Description	This trap indicates that a configuration error has been made: the <i>network</i> numbers of the LS2020's primary IP address and the NP Ethernet IP address are the same.
Action	Check the settings for the primary IP address, NP IP Mask, NP IP address, and NP IP mask attributes. Refer to the <i>LightStream 2020 Configuration Guide</i> for information on correctly setting these attributes. Fix the appropriate attribute values and update the node's configuration.

Trap Name	NPIP_4
Trap Text	configuration error: the internal IP network address is the same as the ethernet IP address
Description	This trap indicates that the following configuration error has been made: the internal IP network address and the Ethernet IP address have been assigned to the same value.
Procedure	<ol style="list-style-type: none"> 1 Check the Primary IP address and the NP IP address attributes. Refer to the <i>LightStream 2020 Configuration Guide</i> for information on correctly setting these attributes. 2 Fix the appropriate attribute value and update the node's configuration.

Trap Name	NPIP_5
Trap Text	configuration error: the default router is not on the same IP network as the ethernet interface
Description	This trap indicates that the default router has not been configured correctly.
Procedure	<ol style="list-style-type: none"> 1 Check the Default Router attribute. Refer to the <i>LightStream 2020 Configuration Guide</i> for information on correctly setting this attribute. 2 Fix the attribute value and update the node's configuration.

Trap Name	NPIP_6
Trap Text	configuration error: the primary and secondary NP IP addresses are not on the same IP network
Description	This trap indicates that the primary and secondary NP IP addresses have not been configured correctly.
Procedure	<ol style="list-style-type: none"> 1 Check the Primary IP address and the Secondary IP address attribute values. Refer to the <i>LightStream 2020 Configuration Guide</i> for information on correctly setting these attributes. 2 Fix the appropriate attribute value and update the node's configuration.

NPTMM Traps

This section lists traps for the NP TCS Monitoring Module (NPTMM).

Trap Name	NPTMM_2
Trap Text	Bulk Power Supply <A or B> has been removed
Description	This trap is provided for information only. It indicates that one of the bulk power supplies has been removed.
Action	No action is required; however, the node will be without power supply redundancy until the supply is replaced.
Trap Name	NPTMM_6
Trap Text	<p><parameter name> of card <slot#> is outside of the normal range</p> <p>Where</p> <p><parameter name> can be any of the following:</p> <p>TEMPERATURE#1</p> <p>TEMPERATURE#2</p> <p>TCS VCC VOLTAGE</p> <p>VCC VOLTAGE</p> <p>SCSI VOLTAGE (FOR NP)</p> <p>VEE VOLTAGE</p> <p>VPP VOLTAGE</p> <p>PADDLE CARD TEMPERATURE#1</p> <p>PADDLE CARD TEMPERATURE#2</p> <p>BULK VOLTAGE</p>
Description	The specified value, monitored by the TCS, is outside of its normal range.
Procedure	<ol style="list-style-type: none">1 For the temperature-related traps, verify that the ambient temperature in the room is within the range specified in the <i>LightStream 2020 Site Planning and Cabling Guide</i>. Verify that the blowers are operating properly and that the air intakes on the LightStream 2020 chassis are not blocked. Also verify that all cards, bulkheads, filler panels, covers, and components are in place, as required for proper operation of the cooling system. See the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for more troubleshooting information.2 For the voltage-related traps, contact your customer service representative.

Trap Name	NPTMM_8
Trap Text	Card <slot#> POST Failed; Download Is Not Initiated
Description	This trap indicates that the power-on self test (POST) failed and that there might be a hardware problem.
Procedure	<ol style="list-style-type: none">1 Review the results of the POST. (See the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for instructions.)2 Reset the specified card and rerun the POST.3 If the problem persists, run diagnostics on the specified card. If the card fails or will not come up, replace it. (See the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for replacement instructions.)4 If the card passes POST and diagnostics (but you get this trap), contact your customer service representative.
Trap Name	NPTMM_9
Trap Text	Card <slot#> Download Failed More Than <number of times download failed, default=2> Times; New Download Is Not Initiated
Description	This trap indicates the download of the specified card has failed multiple times. This indicates there may be a hardware problem.
Action	<p>Run diagnostics on the specified card. If the diagnostics fail or if the card will not come up, replace the card. (See the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for instructions.)</p> <p>If the card passes diagnostics (but you get this trap), contact your customer service representative.</p>
Trap Name	NPTMM_10
Trap Text	Chassis ID inconsistency [FATAL error] (switch <A or B> programmed to <configured chassis ID> instead of expected <EEPROM chassis ID>)
Description	This trap indicates that the configured value for the chassis ID does not match the value stored in the EEPROM on the midplane. A system reboot immediately follows this error.

Causes	An incorrect value may have been entered during configuration. The EEPROM on the midplane may be faulty.
Procedure	<ol style="list-style-type: none"> 1 Check the value of the chassisID MIB object, using either the CLI or the configurator. See the <i>LightStream 2020 CLI Reference Guide</i> for information on using the CLI. See the <i>LightStream 2020 Configuration Guide</i> for information on using the configurator. 2 Determine the value in the midplane EEPROM by using the sysver command (see the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i>). 3 If the configured value doesn't match the EEPROM value, enter the correct chassis ID through the configurator or the CLI. 4 If the two chassis IDs match, contact your customer service representative because the EEPROM may be damaged or corrupted.
Trap Name	NPTMM_11
Trap Text	PROCESS FATAL ERROR: <code>
Description	This trap indicates that a fatal software error has occurred.
Action	Contact your customer service representative.
Trap Name	NPTMM_14
Trap Text	Bulk Power Supply <A or B> Failed
Description	One of the bulk power supplies failed. Your node will be without power supply redundancy until the failed supply is replaced.
Action	<p>No action is required; however, the node will be without power supply redundancy until the failed power supply is replaced.</p> <p>To remove and replace the failed power supply, see the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i>.</p> <p>One power supply can completely power the LightStream 2020 switch.</p>
Trap Name	NPTMM_16
Trap Text	Cannot support fast cutover with swaccdvr version # <version>, rebooting
Description	<p>This trap indicates that the cutover is going to cause a system reboot because the version of the SWACC driver on the NP can't cut over to the backup switch card without rebooting the system.</p> <p>This message is logged after an NPTMM_23 trap.</p>
Causes	The NP kernel is out of date.
Action	None. However, if you want to upgrade the NP kernel, call your customer service representative.

Trap Name	NPTMM_17
Trap Text	Assuming unsynced environment for cutover to switch <A or B>, rebooting...
Description	<p>This trap indicates that the NP has to reboot the system in order to perform the cutover.</p> <p>This message can be logged after an NPTMM_22 trap.</p>
Causes	<p>You may have a Release 1 switch card. Release 1 switch cards don't have clock synchronization circuitry. (You always receive this trap message when cutover involves a Release 1 switch card.)</p> <p>If your system contains one or more Release 2 switch cards, there may be a problem with the clock synchronization circuitry.</p>
Action	<p>If you have a Release 1 switch card, no immediate action is required. After it reboots, your system should function properly. However, in order to restore redundancy of your switch cards, you must troubleshoot your other switch card.</p> <p>If problems persist after the reboot, troubleshoot the switch cards.</p> <p>For information on troubleshooting, refer to the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i>.</p>

Trap Name	NPTMM_18
Trap Text	Attempted illegal operator-initiated cutover to switch <A or B>
Description	This trap indicates that the planned cutover could not be performed because there was a problem with the backup switch card.
Causes	<p>The backup switch card may have a clock problem.</p> <p>The backup switch card may have been removed from the slot.</p>
Action	If the backup switch card is present, see the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for troubleshooting and replacement instructions.

Trap Name	NPTMM_19
Trap Text	Can't alter b-is-primary bit on Switch B
Description	<p>This trap indicates that the NP could not change a bit on the backup switch card used by the function cards to determine which switch is active. Therefore, the backup switch card cannot be used as the active switch card.</p> <p>This message occurs in conjunction with switch cutover messages, such as NPTMM_23.</p>
Causes	There is a hardware problem on Switch B.
Action	Troubleshoot (and replace if necessary) the switch cards. Refer to the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> .

Trap Name	NPTMM_20
Trap Text	FATAL ERROR: Secondary switch clock bad, cutover failed, rebooting...
Description	This trap indicates that the NP could not perform an unplanned cutover because it detected a problem on the backup switch card. This message is followed by a system reboot.
Causes	<p>This is one of the messages that can follow an NPTMM_25 trap. When it occurs in conjunction with that message, it means that both switch cards have a problem.</p> <p>The backup switch card may have a hardware problem with its clock signal. The signal is either intermittent or not present.</p> <p>The backup switch card may have been removed from its slot.</p>
Action	<p>Troubleshoot (and replace if necessary) the switch cards. Refer to the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for instructions.</p> <p>If the switch cards do not appear to be the problem, troubleshoot the NP. Refer to the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for instructions.</p>
Trap Name	NPTMM_21
Trap Text	FATAL ERROR: Secondary switch clock is bad, can't cutover, rebooting...
Description	<p>This trap indicates that the NP could not perform an unplanned cutover because it detected a problem on the backup switch card. This message is followed by a system reboot.</p> <p>This is one of the messages that can follow an NPTMM_26 trap. When it occurs in conjunction with that message, both switch cards have a problem.</p>
Causes	<p>The backup switch card may have a hardware problem with its clock signal. The clock signal on the backup switch card is intermittent or not present.</p> <p>The backup switch card may have been removed from its slot.</p>
Action	Troubleshoot (and replace if necessary) the switch cards. Refer to the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for instructions.
Trap Name	NPTMM_22
Trap Text	Initiating unplanned cutover to switch <A or B>
Description	<p>This trap indicates that the NP has initiated an unplanned cutover to the backup switch card because it could not access certain TCS registers.</p> <p>This is one of the messages that can follow an NPTMM_26 trap.</p> <p>This message can occur in conjunction with an NPTMM_17 message.</p>
Action	None.

Trap Name	NPTMM_23
Trap Text	Initiating planned NP lossless cutover to switch <A or B>
Description	<p>This trap indicates that the NP is initiating cutover to the backup switch card in response to an operator request. This trap indicates that the request occurred when the switch clocks were synchronized.</p> <p>After this message is logged, one of two trap messages is logged, NPTMM_16 or NPTMM_27.</p>
Action	None.

Trap Name	NPTMM_24
Trap Text	NP TCS SLAVE version cannot support fast Switch cutover
Description	This trap indicates that the version of the TCS slave on the NP cannot support unplanned cutover without the system being rebooted. (The message is displayed only during system initialization.)
Action	None. However, if you want the newer version of the TCS slave, call your customer service representative.

Trap Name	NPTMM_25
Trap Text	NP Switch clock loss from switch <A or B> detected
Description	This trap indicates that the NP has detected a problem with the clock signal received from the active switch card. After this trap message is logged, one of three trap messages is logged: NPTMM_20, NPTMM_31, or NPTMM_32.
Action	See the action required for the associated trap: NPTMM_30, NPTMM_31, or NPTMM_32.

Trap Name	NPTMM_26
Trap Text	NP detected action register failure while on switch <A or B>
Description	This trap indicates that the NP could not read or write a TCS register during normal operations. After this trap message is logged, one of three trap messages is logged: NPTMM_21, NPTMM_22, or NPTMM_17.
Causes	There may be a hardware or firmware problem in the TCS system.
Action	See the action required for the associated trap: NPTMM_17, NPTMM_21, or NPTMM_22.

Trap Name	NPTMM_27
Trap Text	Planned lossless cutover failed due to ioctl error
Description	This trap indicates that the planned cutover failed due to a problem on the active NP.
Causes	This message is logged after an NPTMM_23 trap.
Action	Contact your customer service representative.
Trap Name	NPTMM_28
Trap Text	Planned cutover to switch <A or B> requested in unsync environment, rebooting...
Description	This trap indicates that the NP could not perform the planned cutover to the backup switch card because it detected that the switch card clocks were not synchronized. This message is followed by a system reboot.
Causes	You may have a Release 1 switch card. Release 1 switch cards do not have clock synchronization circuitry. (You always receive this trap message when cutover involves a Release 1 switch card, even if the other switch card is a Release 2 version.) There may be a problem with the clock synchronization circuitry on a Release 2 switch card.
Action	If the chassis contains at least one Release 1 switch card, no action is required. After the system reboots itself, it should function properly. However, in order to restore redundancy of your switch cards, you need to troubleshoot your other switch card. If problems persist after the reboot, troubleshoot the switch cards. For information on troubleshooting, refer to the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> .
Trap Name	NPTMM_29
Trap Text	Slot state rx message too small
Description	This trap indicates that an internal software error has occurred.
Action	Call your customer service representative.
Trap Name	NPTMM_30
Trap Text	Unable to determine an available Switch (<error code>)
Description	This trap indicates that the NP could not determine which switch card is active, based on a periodic query of several hardware and firmware resources on the switch cards.
Causes	The TCS system may have a problem. One of the switch cards may have a problem.
Action	Contact your customer service representative with the error code.

Trap Name	NPTMM_31
Trap Text	Unplanned, lossy cutover to switch <A or B> occurred
Description	This trap indicates that the NP has successfully completed an unplanned cutover to the backup switch card. The cutover was caused by a problem on the active switch card, This is one of the messages that can follow an NPTMM_25 trap. When it occurs in conjunction with that message, it means that you have a new active switch card and that your other switch card needs to be fixed.
Action	To restore redundancy of your switch cards, you need to troubleshoot your other switch card. Refer to the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> .

Trap Name	NPTMM_32
Trap Text	Unplanned cutover to switch <A or B> occurred in unsync environment, rebooting...
Description	This trap indicates that the NP could not perform an unplanned cutover to the backup switch card because it found that the switch card clocks were not synchronized. This message is followed by a system reboot. This is one of the messages that can follow an NPTMM_25 trap. When it occurs in conjunction with that message, it means that you have a new active switch card and that your other switch card needs to be fixed.
Causes	You may have a Release 1 switch card. Release 1 switch cards do not have clock synchronization circuitry. (You always receive this trap message when cutover involves a Release 1 switch card.) There may be a problem with the clock synchronization circuitry on a Release 2 switch card.
Action	After the system reboot, your system should function properly. However, in order to restore redundancy of your switch cards, you need to troubleshoot your other switch card. Refer to the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> .

Trap Name	NPTMM_33
Trap Text	Slot <slot#> State Changed From <state> To <state>
Description	This trap indicates that the switch card in the specified slot has changed from one state to another. The possible states are EMPTY, FAILED, UP, and DOWN.
Causes	A slot changes to the EMPTY state if it is removed from the slot. A card changes to the FAILED state if it can't communicate over the TCS. A card changes to the UP state if it becomes operational and to the DOWN state if it ceases to be operational. If there is a change to the FAILED state, the trap occurs with the NPTMM_26 or NPTMM_30 trap.
Action	If the state has changed to FAILED or DOWN, investigate and if necessary troubleshoot the switch card. See the <i>LightStream 2020 Hardware Reference & Troubleshooting Guide</i> for details. Also see the action required for the associated traps, NPTMM_26 and NPTMM_30.

Watchdog Traps

This section lists traps for the NP Watchdog Timer Manager (watchdog) process.

Trap Name	WATCHDOG_1
Trap Text	Neighborhood discovery daemon failure, rebooting system.
Description	<p>This trap indicates that NDD has failed and that the watchdog process is rebooting the system to restart NDD. Once NDD is restarted, it restarts all other processes.</p> <p>The NDD process monitors all processes in the network and restarts them automatically when necessary. The watchdog process is used to monitor the status of NDD itself and to determine when NDD needs to be restarted.</p>
Action	Normally, no action is required. If this trap occurs repeatedly, contact your customer service representative.