TAP-042

Clear LIF Unit Alarm

PURPOSE

Provides procedures for clearing an LIF alarm.

GENERAL

This procedure assumes that you have logged on to the alarmed Network Element (NE) and have opened the 1603 SM Application browser (DLP-117). Unless stated otherwise, all menu items referenced in this procedure are selected from the browser context menu.
Refer to TAP-001 for assistance in analyzing alarms and isolating alarms to specific NEs.

Procedure

1. Have alarms and conditions been retrieved?

   If yes, go to step 3.
   If no, go to step 2.

2. Retrieve LIF alarms:

   Alarm Surveillance> Current Conditions>Filter>LIF>OK>Retrieve

3. From the Active Alarms screen, identify the Condition, then go to the step indicated in Table A to clear alarm.

Table A. Alarms/Conditions/Events

ALARM/CONDITION	DESCRIPTION	STEP
BOOT	Unit processor is running bootcode	4
BUERR	B2 parity errors on internal STS1 bus between interconnecting equipment	13
CNTBUS	Standby SBI reflection loop test	133

	failure	
CONTBUS	Control bus error	62
CONTCOM	Control equipment communication failure. An active NEP-LIF link communication link failure has occurred.	73
CONTEQPT	Control equipment failure. An A/B selection failure has occurred.	100
CONTRDUP	Active LIF to standby LIF link failure	118
CTNEQPT	Failure on internal STS1 bus between interconnecting equipment	13
FAILTOSW	Failed to switch	153
FWCONTCOM	STAR to Ethernet board communication failure	164
FWPROGFLT	Firmware program storage failure	172
FWMJVER	Firmware major version error	180
FWMNVER	Firmware minor version error	192
HITEMP	Laser high temperature	206
IMPROPRMVL	Improper removal	215
INHDGN	Inhibit diagnostics	218
INHPMREPT	Inhibit PM reporting	221
INHSWDX	Inhibit switch to duplex	224
INT	LIF internal failure (SFMT, R/W, error count)	228
INVERR	Inventory error	235
LBCL	High TX laser bias	249
LOTEMP	Laser low temperature	206
LPT	Low laser power (transmitter)	206
MEA	Mismatch of unit and provisioning data	256
MTCE	Removed from service for maintenance	269
PROGFLT	Program storage failure	273
PROGVER	Program version error	279
SYNC	Distributed clock failure	289
SYNCCLK	Sync clock fail or SFMT	301
SYNCSEL	Sync reference in use	315
CONDITION	**DESCRIPTION**	**ACTION**
ACT	Unit is active	No action
AINS	Unit is in Automatic-In-Service state	No action

CLKSELA	CLK A is active clock reference	No action
CLKSELB	CLK B is active clock reference	No action
FWDL	Firmware download in progress (manual or auto)	No action
STBY	Unit is standby	No action
SWDL	Automatic or manual download in progress	No action
EVENT	**DESCRIPTION**	**ACTION**
AINS	Unit is in Automatic-In-Service state	No action
AUTODL	Automatic download in progress	No action
AUTODLFAIL	Automatic download failed	No action
AUTORESET-0	Automatic reset level 0 (warm restart)	No action
AUTORESET-1	Automatic reset level 1 (cold restart)	No action
EQUIP	Unit is equipped	No action
FRCDSW	Forced switch	No action
FWAUTODL	Automatic download to FW processor is in progress	No action
FWAUTODLFAIL	Automatic download to FW processor failed	No action
FWAUTORESET	Ethernet board processor reset	No action
MANRESET-0	Manual reset level 0 (warm restart)	No action
MANRESET-1	Manual reset level 1 (cold restart)	No action
MANRESET-2	Manual reset level 2 (download)	No action
MANSW	Manual equipment switch	No action
UNASSIGN	Unit is unassigned	No action
UNEQUIP	Unit is unequipped	No action
WTRREVERT	Wait to restore/ revertive time-out	No action

Alarm/Condition - BOOT

1. The processor-based unit does not have working software installed and is running bootcode only.

   If unit was just installed, an automatic download may be in progress. The ACT (green) LED on the alarmed unit flashes during download process. If download is in progress, wait until it is completed.

2. Retrieve download status of NE:

    a. Select the following menu item:
    Download...

    b. Select Status tab.

    c. Select Retrieve.

3. From response, is Automatic S/W Download Inhibited?

    If yes, go to step 7.
    If no, go to step 8.

4. Enable the automatic download feature:

    a. Select the following menu items:
    Provision>Network Element>Settings

    b. Select Allow/Inhibit tab.

    c. Select NE Global.

    d. Select Retrieve.

    e. Select Modify.

    f. From Auto Download Feature drop-down list, select Allow.

    g. Click on OK.

    h. Click on Send, then Close.

5. ***NOTE:*** *If COA with expanded memory (COAxx5/xx6 or COA603 - 610) is equipped, it must have current version of software that NEP is running. For software compatibility of*

units, refer to DLP-101.

Is the NE equipped with COA with expanded memory or a compatible unit from which software can be auto-downloaded.
If yes, go to step 9.
If no, go to step 11.

6. Wait for auto-download to complete.

7. STOP. This procedure is complete.

- Unit must be manually downloaded (DLP-116).

- STOP. This procedure is complete.

Alarm/Condition - BUERR and CTNEQPT

1. A B2 parity error (BUERR) or failure (CTNEQPT) has been detected on internal STS1 bus between DMI and interconnecting equipment.

2. An attempt is made to record the autonomous message associated with the alarm condition. The message most likely states which side (A or B) of the internal STS1 path the error was detected on, which helps in isolating the faulty unit if it is not the LIF unit.

3. ***NOTE:*** *The type of autonomous message is REPT-ALM-EQPT with the aid format of DGx-LIFy (where x = 1, 2, or 3, and y = A or B). If BUERR alarm, the conddescr parameter contains B2ERRORA or B2ERRORB. If CTNEQPT alarm, the conddescr parameter contains STS1AFAIL, STS1BFAIL, STSAINTERX or STSBINTERX. The highlighted A or B in the conddescr indicates which STS bus (Side A or Side B) the error was detected on.*

   Do you have a record of the autonomous message associated with the BUERR or CTNEQPT alarm?
   If yes, go to step 18.
   If no, go to step 16.

4. Retrieve and review the message log:

   Alarm Surveillance> History Log
   FIlter>Message Type=Alarms
   Retrieve>Details

From the Details screen, record the description associated with the alarm condition.

5. Record the autonomous message associated with the alarm condition.

6. Perform diagnostics on LIF:

   a. Select the following menu items:
   Manual Controls>Diagnostics> Equipment

   b. Select LIF tab.

   c. Modify the Group, Termination Method, Iterations and Phase, where:

      - Group = Drop Group 1A - 3B
      - Termination Method = Immediate
      - Iteration = 5
      - Phase 4 = NSA, STS1 Interconnect

   d. Click on Send and wait for diagnostics to complete.

7. Did diagnostics pass?

   If yes, go to step 20.
   If no, go to step 22.

8. An intermittent error has occurred. Monitor for further alarms. If alarms continue, go to step 22.

9. STOP. This procedure is complete.

10. Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.

11. Replace alarmed LIF per DLP-101.

12. Retrieve alarms:

    Alarm Surveillance> Current Alarms>Retrieve

13. Did alarm clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 26.

14. What type of VSCC is in NE?

    If VSCC101, VSCC30x, or VSCC501, go to step 45.
    If VSCC20x, go to step 27.

15. Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing plug-in units to avoid interrupting service.

16. Per the VSCC20x configuration (see Figure 1) determine which line group or drop group the LIF is connected to.

17. Was an autonomous message recorded with the conddescr parameter (see step 16)?

If yes, go to step 30.
If no, go to step 37.

Figure 1. VSCC20x Traffic Routing Diagrams

1. ***NOTE:*** *If BUERR alarm, the conddescr parameter contains B2ERRORA or B2ERRORB. If CTNEQPT alarm, the conddescr parameter contains STS1AFAIL, STS1BFAIL, STSAINTERX or STSBINTERX. The highlighted A or B in the conddescr indicates which internal STS1 bus (Side A or Side B) the error was detected on.*

   From the conddescr parameter, determine which STS1 bus was alarmed: Side A or Side B.

2. Which STS1 bus was alarm reported on?

   If Side A, go to step 32.
   If Side B, go to step 33.

3. In the line group or drop group connected to the alarmed LIF, replace the Side A unit per DLP-101. Go to step 34.

4. In the line group or drop group connected to the alarmed LIF, replace the Side B unit per DLP-101.

5. Did alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 35.

6. Contact Customer Service (TNG-505).

7. STOP. This procedure is complete.

8. Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing plug-in units to avoid interrupting service.

9. In the line group or drop group connected to the alarmed LIF, replace the unit the LIF is cross-connected to (replace the standby unit, if duplex) per DLP-101.

10. Did alarm clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 40.

11. Are units duplex (two units)?

    If yes, go to step 41.
    If no, go to step 43.

12. Replace active unit the LIF is cross-connected to per DLP-101.

13. Did alarm clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 43.

14. Contact Customer Service (TNG-505).

15. STOP. This procedure is complete.

16. Possibility of service interruption. Adhere to DLP-101 in the following steps when

replacing the VSCC to avoid affecting service.

17. Was an autonomous message recorded with the conddescr parameter (see step 16)?

    If yes, go to step 47.
    If no, go to step 54.

18. If BUERR alarm, the conddescr parameter contains B2ERRORA or B2ERRORB. If CTNEQPT alarm, the conddescr parameter contains STS1AFAIL, STS1BFAIL, STSAINTERX or STSBINTERX. The highlighted A or B in the conddescr indicates which internal STS1 bus (Side A or Side B) the error was detected on.

    From the conddescr parameter, determine which STS1 bus was alarmed: Side A or Side B.

19. Which STS1 bus was alarm reported on?

    If Side A, go to step 49.
    If Side B, go to step 50.

20. Replace VSCC-A unit (Side A) per DLP-101; then go to step 51.

21. Replace VSCC-B unit (Side B) per DLP-101.

22. Did alarm clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 52.

23. Contact Customer Service (TNG-505).

24. STOP. This procedure is complete.

25. Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the VSCC to avoid affecting service.

26. Replace the VSCC unit (replace the standby unit, if duplex) per DLP-101.

27. Did alarm clear?

    If yes, STOP. This procedure is complete.

If no, go to step 57.

28. Are there two VSCC units?

    If yes, go to step 58.
    If no, go to step 60.

29. Replace the other VSCC unit per DLP-101.

30. Did alarm clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 60.

31. Contact Customer Service (TNG-505).

32. STOP. This procedure is complete.

Alarm/Condition - CONTBUS

1. CONTBUS indicates that an LIF has detected a loss of frame, reflected parity error, or received parity error on the communication bus (SBI) to the active NEP.

2. Perform diagnostics on LIF:

    a. Select the following menu items:
    Manual Controls>Diagnostics> Equipment

    b. Select LIF tab.

    c. Modify the Group, Termination Method, Iterations and Phase, where:

        - Group = Drop Group 1A - 3B
        - Termination Method = Immediate
        - Iteration = 5

- Phase 1 = NSA, Active NEP-LIF Comm

d. Click on Send and wait for diagnostics to complete.

3. Did diagnostics pass?

   If yes, go to step 65.
   If no, go to step 67.

4. Problem is intermittent; monitor. If problem continues, go to step 67.

5. STOP. This procedure is complete.

6. Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.

7. Replace alarmed LIF per DLP-101.

8. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

9. Did the alarm(s) clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 71.

10. Suspect a bad active NEP; go to TAP-028.

11. STOP. This procedure is complete.

Alarm/Condition - CONTCOM

1. A CONTCOM alarm indicates that the LIF to NEP link has failed.

2. Perform diagnostics on LIF:

a. Select the following menu items:
Manual Controls>Diagnostics> Equipment

b. Select LIF tab.

c. Modify the Group, Termination Method, Iterations and Phase, where:

- Group = Drop Group 1A - 3B
- Termination Method = Immediate
- Iteration = 5
- Phase 1 = NSA, Active NEP-LIF Comm

d. Click on Send and wait for diagnostics to complete.

3. Did diagnostics pass?

   If yes, go to step 76.
   If no, go to step 78.

4. Problem is intermittent; monitor. If problem continues, go to step 78.

5. STOP. This procedure is complete.

6. Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing plug-in units to avoid interrupting service.

7. Replace alarmed LIF per DLP-101.

8. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

9. Did the alarm(s) clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 82.

10. Replace NEP per DLP-101.

11. Retrieve alarms:

    Alarm Surveillance> Current Alarms>Retrieve

12. Did the alarm(s) clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 85.

13. 85 Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the CLK to avoid interrupting service.

14. Replace same side CLK unit (i.e., if alarmed LIF is on side A , replace CLK-A and if alarmed LIF is on side B, replace CLK-B). Refer to DLP-101 when replacing the clock.

15. Retrieve alarms:

    Alarm Surveillance> Current Alarms>Retrieve

16. Did the alarm(s) clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 89.

17. If LIF version is:

    LIF20x, LIF30x, or LIF901 and VSCC is 10x/20x/301 or 501, go to step 90.
    LIF40x/50x, LIF601/701, or LIFB01 and VSCC is 10x or 20x, go to step 90.
    LIF40x/50x, LIF601/701, or LIFB01 and VSCC is 301 or 501, go to step 93.

18. Replace opposite side CLK unit per DLP-101.

19. Retrieve alarms:

    Alarm Surveillance> Current Alarms>Retrieve

20. Did the alarm(s) clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 97.

21. 93 Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the VSCC to avoid interrupting service.

22. Replace opposite side VSCC unit per DLP-101.

23. Retrieve alarms:

    Alarm Surveillance> Current Alarms>Retrieve

24. Did the alarm(s) clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 97.

25. Suspect backplane bus problem.

26. Contact Customer Support (TNG-505).

27. STOP. This procedure is complete.

Alarm/Condition - CONTEQPT

1. When testing an LIF switch (A/B), the NEP did not get a response from the LIF.

2. Perform diagnostics on LIF:

    a. Select the following menu items:
    Manual Controls>Diagnostics> Equipment

    b. Select LIF tab.

    c. Modify the Group, Termination Method, Iterations and Phase, where:

- Group = Drop Group 1A - 3B
- Termination Method = Immediate
- Iteration = 5
- Phase 3 = NSA, Switch Code

d. Click on Send.

3. Did diagnostics pass?

   If yes, go to step 103.
   If no, go to step 105.

4. Alarm may be intermittent; monitor. If condition continues, go to step 105.

5. STOP. This procedure is complete.

6. Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.

7. Replace the alarmed LIF per DLP-101.

8. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

9. Did alarms clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 109.

10. Replace the COA per DLP-101.

11. Retrieve alarms:

Alarm Surveillance> Current Alarms>Retrieve

12. Did alarms clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 112.

13. Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the NEP to avoid interrupting service.

14. Replace the NEP per DLP-101.

15. Retrieve alarms:

    Alarm Surveillance> Current Alarms>Retrieve

16. Did alarms clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 116.

17. Suspect backplane bus problem. Contact Customer Service (TNG-505).

18. STOP. This procedure is complete.

Alarm/Condition - CONTRDUP

1. The communications link between the active and standby LIFs has failed.

2. Perform diagnostics on LIF:

    a. Select the following menu items:
    Manual Controls>Diagnostics> Equipment

    b. Select LIF tab.

    c. Modify the Group, Termination Method, Iterations and Phase, where:

- Group = Drop Group 1A - 3B
- Termination Method = Immediate
- Iteration = 5
- Phase 5 = NSA, Inter LIF Comm

d. Click on Send.

3. Did diagnostics pass?

   If yes, go to step 121.
   If no, go to step 123.

4. The alarm may be intermittent; monitor it. If it continues, go to step 123.

5. STOP. This procedure is complete.

6. Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.

7. Replace alarmed LIF per DLP-101.

8. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

9. Did the alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 127.

10. Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.

11. Replace opposite LIF per DLP-101.

12. Retrieve alarms:

    Alarm Surveillance> Current Alarms>Retrieve

13. Did the alarm clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 131.

14. Suspect backplane bus problem. Contact Customer Service (TNG-505).

15. STOP. This procedure is complete.

Alarm/Condition - CNTBUS

1. An error has been detected on the MSI bus between LIF and LDR units in the drop group. Alarm could be caused by any one of the LIF and LDR units on the bus.

2. **CAUTION: Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF and LDR units to avoid interrupting service.**

3. Replace standby LIF unit per DLP-101.

4. Perform diagnostics on the alarmed LIF:

    a. Select the following menu items:
    Manual Controls>Diagnostics> Equipment

    b. Select LIF tab.

    c. Modify the Group, Termination Method, Iterations and Phase, where:

        - Group = Drop Group and side (A or B) of unit being diagnosed

        - Termination Method = Immediate

- Iteration = 5

- Phase 8 = NSA, Inter LIF-LIF communications test via MSI bus.

d. Click on Send.

5. Did diagnostics pass?

   If yes, go to step 138.
   If no, go to step 139.

6. STOP. This procedure is complete.

7. Replace the active LIF unit per DLP-101.

8. Repeat diagnostics on the alarmed LIF per step 136.

9. Did diagnostics pass?

   If yes, go to step 142.
   If no, go to step 143.

10. STOP. This procedure is complete.

11. Replace the standby LDR unit per DLP-101.

12. Repeat diagnostics on the alarmed LIF per step 136.

13. Did diagnostics pass?

   If yes, go to step 146.
   If no, go to step 147.

14. STOP. This procedure is complete.

15. Replace the active LDR unit per DLP-101.

16. Repeat diagnostics on the alarmed LIF per step 136.

17. Did diagnostics pass?

    If yes, go to step 150.
    If no, go to step 151.

18. STOP. This procedure is complete.

19. Suspect backplane bus problem. Contact Customer Service (TNG-505).

20. STOP. This procedure is complete.

Alarm/Condition - FAILTOSW

1. The LIF unit failed to switch to standby side.

2. Perform diagnostics on alarmed LIF:

    a. Select the following menu items:
    Manual Controls>Diagnostics> Equipment

    b. Select LIF tab.

    c. Modify the Group, Termination Method, Iterations and Phase, where:

        - Group = Drop Group 1A - 3B
        - Termination Method = Immediate
        - Iteration = 5
        - Phase 5 = NSA, Inter LIF Comm

d. Click on Send.

3. Did diagnostics pass?

   If yes, go to step 158.
   If no, go to step 156.

4. Problem is intermittent; monitor it. If it continues, go to step 158.

5. STOP. This procedure is complete.

6. Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.

7. Replace the alarmed LIF per DLP-101.

8. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

9. Did the alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 162.

10. Suspect opposite LIF, COA, or NEP.

    If LIF, go to step 154.
    If COA, go to TAP-015.
    If NEP, go to TAP-028.

11. STOP. This procedure is complete.

Alarm/Condition - FWCONTCOM

1. ***NOTE:*** *An FWCONTCOM alarm indicates a communication failure has occurred to the Ethernet portion of the LIF901 unit. The most likely cause is an internal board failure.*

2. **CAUTION: Possibility of service interruption. Reseating LIF901 unit interrupts**

service.

3. Reseat alarmed LIF901 unit.

4. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

5. Did alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 169.

6. **CAUTION: Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF901.**

7. Replace alarmed LIF901 per DLP-101.

8. STOP. This procedure is complete.

Alarm/Condition - FWPROGFLT

1. ***NOTE:*** *An FWPROGFLT alarm indicates a firmware program storage failure has occurred on LIF901 unit. The most likely cause is an internal board failure.*

2. **CAUTION: Possibility of service interruption. Reseating LIF901 unit interrupts service.**

3. Reseat alarmed LIF901 unit.

4. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

5. Did alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 177.

6. **CAUTION: Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing LIF901 unit.**

7. Replace alarmed LIF901 per DLP-101.

8. STOP. This procedure is complete.

Alarm/Condition - FWMJVER

1. ***NOTE:*** *The FWMJVER alarm indicates that the major version number of the firmware image embedded in the system software is different than the major version number of the firmware version currently executing (i.e., the in use firmware) on the LAN portion of the LIF901 unit. To clear the alarm, the in use firmware must be overwritten.*

2. Retrieve software inventory:

   Administration> Inventory>Software

3. On Inventory dialog, verify that Embedded Firmware Version and Inuse Firmware Version are different.

4. **CAUTION: Possibility of service interruption. Overwriting the in use firmware on the Ethernet portion of the LIF901 interrupts service. Loss of service continues until the download is completed.**

5. ***NOTE:*** *There are two ways to overwrite the in use firmware: enable (allow) automatic download of firmware or manually download firmware.*

   Do you want to allow automatic download or manually download LAN firmware?
   If you want to allow automatic download, go to step 185.
   If you want to do a manual download, go to step 187.

6. Allow automatic download of firmware:

   a. Select the following menu items:
      Provision>Network Element>Settings

   b. On NE Settings screen, select Allow/Inhibit tab.

c. Select Retrieve.

d. Click on NE Global row to activate Modify.

e. Select Modify.

f. From Auto Download ATM LAN drop-down list, select Allow.

g. Click on OK.

h. Click on Send, then Close.

7. Go to step 188.

8. Manually download firmware:

   a. Select the following menu item:
   Download

   b. Select Copy Program - Local tab.

   c. Select Retrieve.

   d. In To region, select DGx-LIFA-FW.

   e. In From region, select Auto Select.

   f. Click on Send.

   NOTE: *During the download process, LEDs on the front panel of the LIF901 light in a scrolling pattern.*

   g. After firmware download completes, click on Close.

9. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

10. Did alarm clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 190.

11. Contact Alcatel Customer Support (TNG-505).

12. STOP. This procedure is complete.

Alarm/Condition - FWMNVER

1. ***NOTE:*** *The minor version number of the firmware image embedded in the system software is different than the minor version number of the in use firmware on the Ethernet portion of the LIF901 unit. The system software is compatible with the embedded firmware, but they are at different revision levels.*

2. Retrieve software inventory:

   Administration> Inventory>Software

3. On Inventory dialog, note the minor version number of the Embedded Firmware and the Inuse Firmware.

4. Which version number is greater?

   If Embedded Firmware, go to step 200 and overwrite in use firmware.
   If Inuse Firmware, go to step 196.

5. ***NOTE:*** *The firmware loaded on the LIF901 is the most current version available, which is okay. If you want to silence the alarm, there are two ways to do it: 1) perform a manual download to overwrite the in use firmware so the embedded firmware and in use firmware versions are the same or 2) change the FWMNVER notification code to Not Reported.*

   Do you want to silence the alarm?
   If yes, go to step 197.
   If no, STOP. This procedure is complete.

6. Do you want to silence alarm by changing notification code or by overwriting in use

firmware?

If notification code change, go to step 198.
If firmware overwrite, go to step 200.

7. Change FWMNVER notification code to Not Reported:

   a. Select the following menu items:
   Provision>Equipment>LIF

   b. On Provision LIF dialog, select Alarm Conditions tab.

   c. On Alarm Condition dialog, select FWMNVER from list of Alarm Conditions.

   d. Select Retrieve.

   e. In LIF column, select alarmed LIF.

   f. Select Modify.

   g. From Active Notification Code drop-down list, select Not Reported.

   h. Click on OK.

   i. Click on Send, then Close.

8. STOP. This procedure is complete.

9. Possibility of service interruption. Overwriting the in use firmware on the Ethernet portion of the LIF901 interrupts service.

10. There are two ways to overwrite the in use firmware: enable (allow) automatic download of firmware or manually download firmware.

    Do you want to allow automatic download or manually download firmware?
    If you want to allow automatic download, go to step 202.

If you want to do a manual download, go to step 204.

11. Enable automatic download of firmware:

    a. Select the following menu items:
    Provision>Network Element>Settings

    b. On NE Settings screen, select Allow/Inhibit tab.

    c. Select Retrieve.

    d. Click on NE Global row to activate Modify.

    e. Select Modify.

    f. From Auto Download ATM LAN drop-down list, select Allow.

    g. Click on OK.

    h. Click on Send, then Close.

12. STOP. This procedure is complete.

13. Manually download firmware:

    a. Select the following menu item:
    Download

    b. On Download dialog, select Copy Program - Local tab.

    c. Select Retrieve.

    d. In To region, select DGx-LIFA-FW.

e. In From region, select Auto Select.

f. Click on Send.

NOTE: *During the download process, LEDs on the front panel of the LIF901 light in a scrolling pattern.*

g. Click on Close.

14. STOP. This procedure is complete.

Alarm/Condition - HITEMP, LOTEMP and LPT

1. A unit has detected a HITEMP, LOTEMP, or LPT alarm condition. HITEMP indicates laser high temperature, LOTEMP indicates laser low temperature, an LPT indicates low laser transmit power.

2. **CAUTION: Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.**

3. Replace alarmed LIF per DLP-101.

4. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

5. Did the alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 211.

6. Perform step 207 through step 209 at far end.

7. Did the alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 213.

8. Perform transmission test on the fiber per local procedure.

9. STOP. This procedure is complete.

Alarm/Condition - IMPROPRMVL

1. An LIF was physically removed.
    - The peer LIF should be active.
    - The removed LIF should be replaced.

- Reinstall or replace LIF unit per DLP-101.
- STOP. This procedure is complete.

Alarm/Condition - INHDGN

1. Diagnostic tests are inhibited. Do you want to allow diagnostics?

   If yes, go to step 219.
   If no, STOP. This procedure is complete.

2. Allow diagnostics:

    a. Select the following menu items:
    Provision>Equipment>LIF

    b. Select Allow/Inhibit tab.

    c. Select alarmed LIF.

    d. Select Retrieve.

    e. Select Modify.

f. From Diagnostic Tests drop-down list, select Allow.

g. Click on OK.

h. Click on Send, then Close.

3. STOP. This procedure is complete.

Alarm/Condition - INHPMREPT

1. Scheduled reporting of performance monitoring is inhibited. Do you want to allow PM reporting?

   If yes, go to step 222.
   If no, STOP. This procedure is complete.

2. Allow PM reporting:

   a. Select the following menu items:
   Provision>Equipment>LIF

   b. Select Allow/Inhibit tab.

   c. Select alarmed LIF.

   d. Select Retrieve.

   e. Select Modify.

   f. From PM Reports drop-down list, select Allow.

   g. Click on OK.

   h. Click on Send, then Close.

3. STOP. This procedure is complete.

Alarm/Condition - INHSWDX

1. Duplex switching of LIF unit is inhibited. Do you want to allow duplex switching?

   If yes, go to step 226.
   If no, STOP. This procedure is complete.

2. **CAUTION: Possibility of service interruption. Under normal conditions, do not leave duplex switching inhibited.**

3. Allow duplex switching of LIF unit:

   a. Select the following menu items:
      Provision>Equipment>LIF

   b. Select Allow/Inhibit tab.

   c. Select alarmed LIF.

   d. Select Retrieve.

   e. Select Modify.

   f. From Switch to Duplex drop-down list, select Allow.

   g. Click on OK.

   h. Click on Send, then Close.

4. STOP. This procedure is complete.

Alarm/Condition - INT

1. An LIF INT alarm condition is caused by an ASIC failure, a read/write check fail, ASIC identification error, a device error count fail, or other internal failure.

2. **CAUTION: Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.**

3. Replace alarmed LIF per DLP-101.

4. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

5. Did alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 233.

6. Are there any PWR unit alarms?

   If yes, go to TAP-030.
   If no, contact Customer Service (TNG-505).

7. STOP. This procedure is complete.

Alarm/Condition - INVERR

1. Contents of inventory data are inconsistent or absent due to EEPROM communication problem.

2. Retrieve hardware inventory:

   Administration> Inventory>Hardware

3. Was a response obtained?

   If yes, go to step 241.
   If no, go to step 238.

4. **CAUTION: Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.**

5. Replace unit per DLP-101; EEPROM is bad.

6. STOP. This procedure is complete.

7. Is data consistent with unit description?

   If yes, go to step 242.
   If no, unit EEPROM is bad. Go to step 244.

8. Error is intermittent; check for other alarms.

9. STOP. This procedure is complete.

10. Are there any other LIF alarms?

    If yes, go to step 245.
    If no, go to step 246.

11. Resolve LIF alarms first. Refer to Table A.

12. Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.

13. Replace unit per DLP-101; EEPROM is bad.

14. STOP. This procedure is complete.

Alarm/Condition - LBCL

1. There is a high transmission laser bias alarm indicating that the bias current has exceeded 1.5 times its initial value.

2. **CAUTION: Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.**

3. Replace alarmed LIF per DLP-101.

4. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

5. Did the alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 254.

6. Check for PWR unit alarms. Go to TAP-030.

7. STOP. This procedure is complete.

Alarm/Condition - MEA

1. The database entry for the alarmed unit does not match equipment type parameter on unit EEPROM.

2. Retrieve hardware inventory, and note the Unit Name of the alarmed unit:

   Administration> Inventory>Hardware

3. Was data retrieved successfully?

   If yes, go to step 259.
   If no, go to step 266.

4. Retrieve provisioned data for alarmed unit, and note the Equipment Type of the alarmed unit:

   Provision>Equipment >LIF>Parameters>Retrieve

5. From response, compare Equipment Type parameter to Unit Name.

6. Is database entry incorrect or is wrong unit installed?

   If incorrect entry, go to step 262.
   If wrong unit, go to step 266.

7. Change the database entry for the alarmed unit:

a. From the Parameters screen opened in step 259, select alarmed LIF unit.

b. Click on Modify.

c. From Equipment Type drop-down list, select unit name that matches name found on faceplate.

d. Click on OK.

e. Click on Send.

8. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

9. Did alarm clear?

   If yes, STOP. This procedure is complete.
   If no (command was denied), go to step 265.

10. ***NOTE:*** *Command was denied because installed unit is not compatible with database entry. Installing an incompatible unit may be considered an upgrade.*

    Refer to A Guide to Upgrading manual for more information.

11. **CAUTION: Possibility of service interruption. Adhere to the procedure in DLP-101 when replacing the LIF unit to avoid interrupting service.**

12. Replace the LIF unit per DLP-101.

13. STOP. This procedure is complete.

Alarm/Condition - MTCE

1. Unit has been removed from service for maintenance.

2. Is this a desired result?

   If yes, STOP. This procedure is complete.
   If no, go to step 271.

3. Restore LIF to service:

   a. Select the following menu items:
   Provision>Equipment>LIF

   b. Select Parameters tab.

   c. Select the alarmed LIF.

   d. Select Retrieve.

   e. Select Modify.

   f. From Service State drop-down list, select In Service.

   g. Click on OK.

   h. Click on Send, then Close.

4. STOP. This procedure is complete.

Alarm/Condition - PROGFLT

1. Either automatic or manual download failed because of a program memory failure. The fault is raised against the target of the download, not the source.

2. **CAUTION: Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.**

3. Replace LIF per DLP-101; EEPROM is bad.

4. Did the alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 277.

5. Contact Customer Service (TNG-505).

6. STOP. This procedure is complete.

Alarm/Condition - PROGVER

1. The program version downloaded to the LIF is not the same as the program version in the NEP (which is assumed to be the correct version).

2. Retrieve and note the NEP and LIF software version numbers:

   Administration> Inventory>Software

3. Are NEP and LIF program versions the same?

   If yes, go to step 282.
   If no, go to step 284.

4. **CAUTION: Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing the LIF to avoid interrupting service.**

5. Replace the alarmed LIF (DLP-101); then go to step 285.

6. Download the inconsistent LIF per DLP-116.

7. Did alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 286.

8. Was LIF replaced?

   If yes, go to step 287.
   If no, go to step 282.

9. Contact Customer Service (TNG-505).

10. STOP. This procedure is complete.

Alarm/Condition - SYNC

1. A SYNC alarm condition signifies that the LIF has lost internal shelf clock input.

2. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

3. Is there a SYNCCLK alarm?

   If yes, go to step 301.
   If no, go to step 292.

4. **CAUTION: Possibility of service interruption. Adhere to the procedure in DLP-101 when replacing the LIF to avoid interrupting service.**

5. Replace the LIF per DLP-101.

6. Did alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 295.

7. Replace the VSCC on the opposite side per DLP-101.

8. Did alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 297.

9. Replace the same side CLK unit per DLP-101.

10. Did alarm clear?

    If yes, STOP. This procedure is complete.

If no, go to step 299.

11. Contact Customer Service (TNG-505).

12. STOP. This procedure is complete.

Alarm/Condition - SYNCCLK

1. An LIF has either lost the clock from the clock PBA, frame sync, STS sync, or VT sync.

2. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

3. ***NOTE:*** *CLK alarms and equipment alarms reported as ISLTD (isolated) should be cleared first.*

   Are there any other EQPT alarms?
   If yes, go to TAP-021.
   If no, go to step 304.

4. **CAUTION: Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing plug-in units to avoid interrupting service.**

5. Replace alarmed LIF per DPL-101.

6. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

7. Did alarm clear?

   If yes, STOP. This procedure is complete..
   If no, go to step 308.

8. Replace the CLK unit on the same side as the alarmed LIF per DLP-101.

9. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

10. Did alarms clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 311.

11. Replace other CLK unit per DLP-101.

12. Did alarm clear?

    If yes, STOP. This procedure is complete.
    If no, go to step 313.

13. Suspect backplane problem; contact Customer Service (TNG-505).

14. STOP. This procedure is complete.

Alarm/Condition - SYNCSEL

1. ***NOTE:*** *This condition could be due to failure of LIFs in other drop groups. Replace units in other drop groups sequentially. Contact Customer Service (TNG-505) after replacing all LIFs if alarms are still active.*

   A SYNCSEL indicates synchronization signal failure for NE timing from the LIF.

2. **CAUTION: Possibility of service interruption. Adhere to DLP-101 in the following steps when replacing plug-in units to avoid interrupting service.**

3. Replace the standby (STBY) LIF per DLP-101.

4. Retrieve alarms:

   Alarm Surveillance> Current Alarms>Retrieve

5. Did alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 320.

6. Replace active (ACT) LIF per DLP-101.

7. Retrieve alarms:

Alarm Surveillance> Current Alarms>Retrieve

8. Did alarm clear?

   If yes, STOP. This procedure is complete.
   If no, go to step 323.

9. Contact Customer Service (TNG-505).

10. STOP. This procedure is complete.