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MOP-B1 ES 24 h threshold crossing alarm clearance OEM Ericsson

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A: Introduction

This document outlines the systematic process involved in clearing B1 ES 24 h threshold crossing alarm clearance on node.

B: PRECHECK

1. Check if impacted site node ping is available, if not align FE immediately.
2. If FE alignment required, he should be having required hardware.
3. FE should be having necessary software on his laptop, necessary node login tools.
4. Please take the microwave link configuration at both ends.
5. Please get the VLAN information, which was tagged on the link at both ends.
6. Please take manual back up of traffic routing.
7. If partial outage is there from any node, and while rectification activity, other sites also can go down for time being, ensure to have proper approval for outage window for all dependent sites for working node.

C: Procedure

Alarm Description: Errored Seconds (ES)

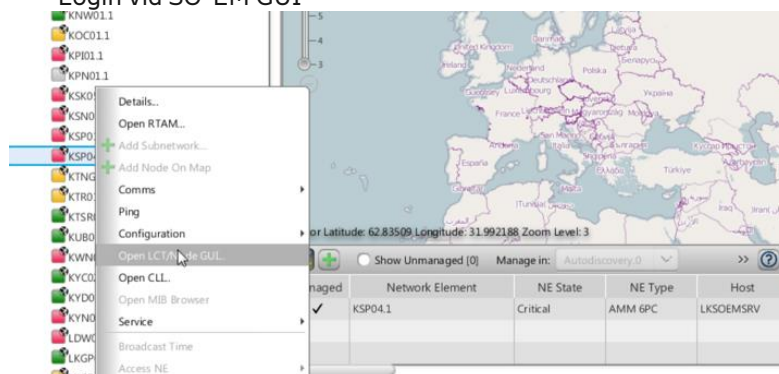
The Synchronous Digital Hierarchy (SDH) counter threshold, set for 24 h time windows, is crossed. The ES represents a second in which one or more Synchronous Transport Module level 1 (STM-1) frames contain at least one error, and is computed by the TRU when the operator enables G.826 performance monitoring. The alarm is raised when ES the counter value crosses the threshold set by the operator. This value is configured within the G.826 performance 24 hours monitoring options.

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1. If node is managed, then open node using SO-EM GUI or directly from Mini-Link Craft using node IP.

Login via SO-EM GUI



Login via craft

MINI-LINK Craft 19.Q4

NE Filter: TE2014.2 (192.169.217.99)

IP/Host: 192.168.215.209

User: admin_user

Password: ••••••••

SNMP Authentication: MD5

SNMP Privacy: None

Logging on...

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2. Perform a RAU IF performance reset as mentioned below:

Network Element

NE Status: In Service
NE Uptime: 7 Days 13 hours 29 min 40 seconds
NTP Status: Service Up
NE Date and Time: 2020-03-31 06:54:48 (UTC +05:30)
SW Status: No Upgrade
Software Baseline: MINI-LINK TN 5.4FP.4 LH 1.6FP.4 R33C133
Notifications: Enabled
Telecom Standard: ETSI
DCN-Mode: Front Connector

NE License Status: NE License, NE License, Unlocked, Left Unlocked, Latest Unlocked Period

NE Alarms: Power Failure Upper Input, Power Failure Lower Input, Traffic Failure, Control Failure, Low Input Voltage

Performance Intervals Adaptive Modulation

Severity	AlarmType	AlarmID	AlarmTime	Source	SpecificProblem	ProbableCause
Minor	qualityOfServiceAlarm	2	2020-03-23 17:33:11.1	RAU IF 1/5/1	AMS 15 min threshold crossing	ThresholdCrossed
Minor	qualityOfServiceAlarm	9483	2020-03-31 00:25:11.1	RAU IF 1/5/1	AMS 24 h threshold crossing	ThresholdCrossed
Minor	qualityOfServiceAlarm	9484	2020-03-31 00:28:35.1	RAU IF 1/5/1	ES 24 h threshold crossing	ThresholdCrossed
Minor	qualityOfServiceAlarm	9502	2020-03-31 03:24:29.1	RAU IF 1/5/1	ES 15 min threshold crossing	ThresholdCrossed
Major	communicationAlarm	9523	2020-03-31 04:51:52.6	RAU IF 1/5/1	BER	DegradedSignal

15min/24h(G.826) Continuous(G.826) Adaptive Modulation

Current 15 min interval
Elapsed Time 0h 13min 35s

BBE	2 379
BBER	0.003
ES	617
ESR	0.7669
SES	0
SESR	0.0
BB	808 000
UAS	0

Current 24 hour interval
Elapsed Time 6h 58min 25s

BBE	37 244
BBER	0.0015
ES	12 535
ESR	0.4993
SES	0
SESR	0.0
BB	25 103 000
UAS	0

Previous 15 min interval

BBE	1 224
ES	503
SES	0
BB	899 000
UAS	0

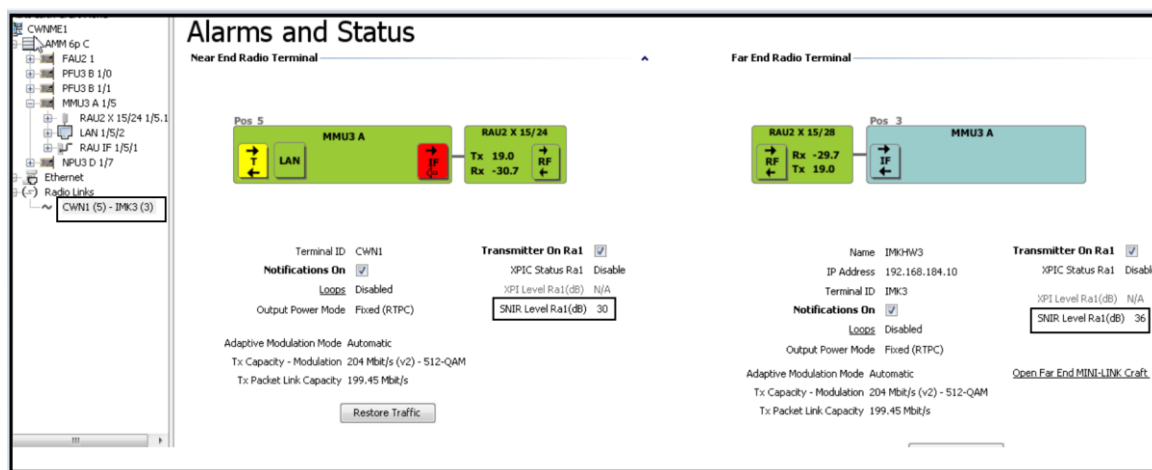
Previous 24 hour interval

BBE	561 746
ES	52 051
SES	4 880
BB	86 392 000
UAS	663

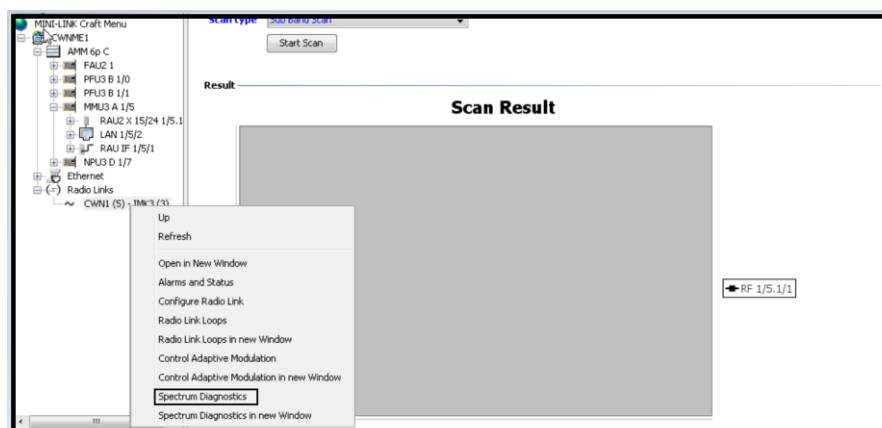
Clear NE Counters Clear FE Counters

3. Check the status, if alarm is cleared, monitor the link error for next 24 hours.
4. If alarm is not cleared and SES 15 min threshold crossing alarm appear on the node within 15 minutes, then check the SNIR of the link.

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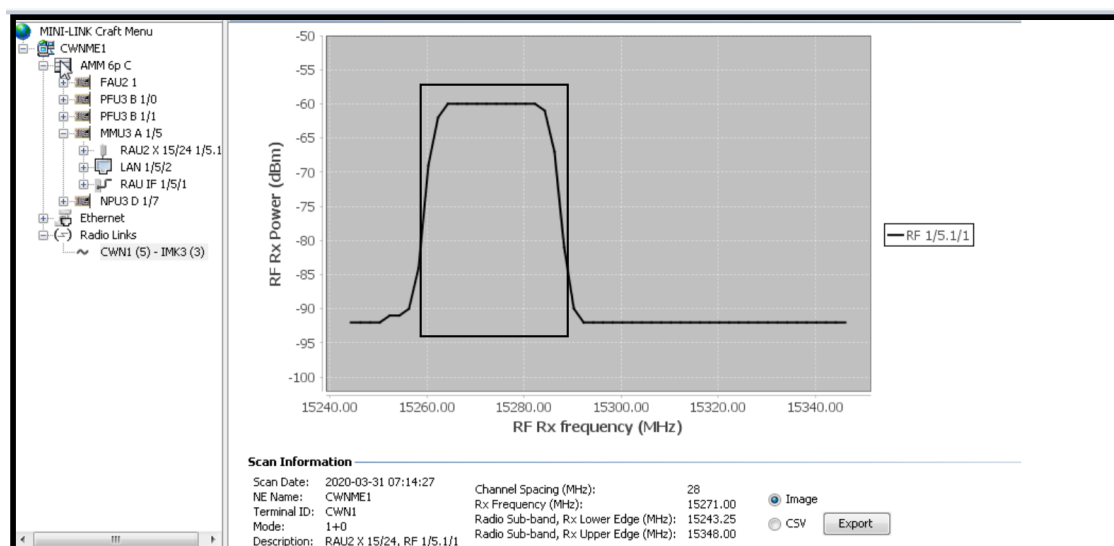


5. SNIR should be approximately 40. If it is less than that go for further steps to troubleshoot
Note: Some minor Error cases SNIR might be 40 approximately. That is exceptional.
A Frequency scan test:



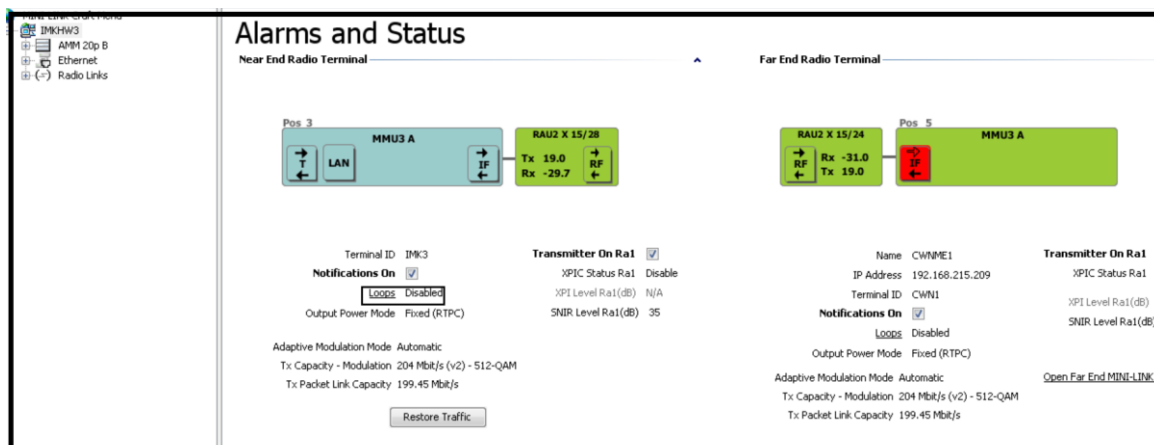
Check the result graph (Frequency Vs Rsl):

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B If interference not found from both ends, then go for further test at both ends.

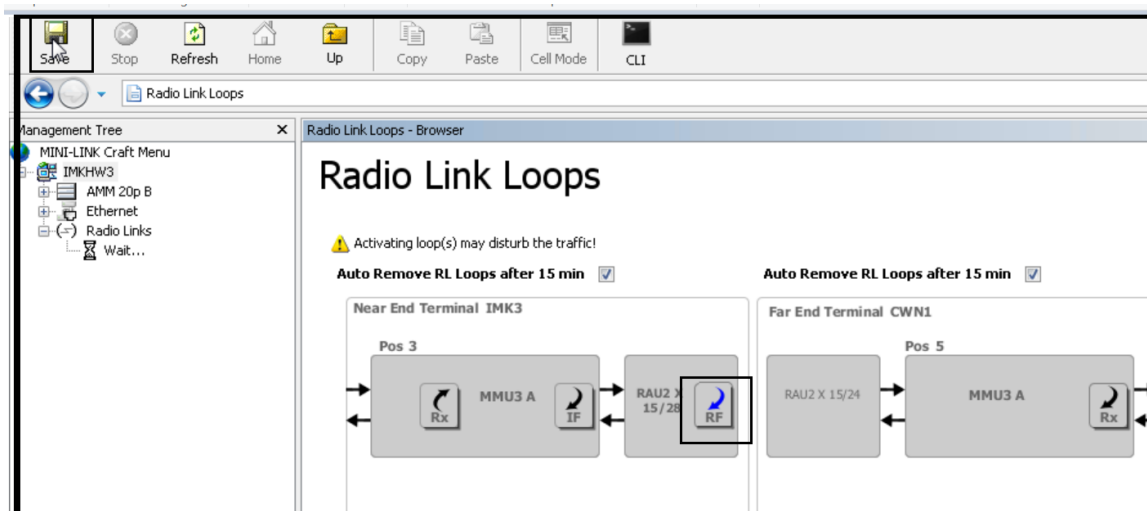
RF and IF loop test:



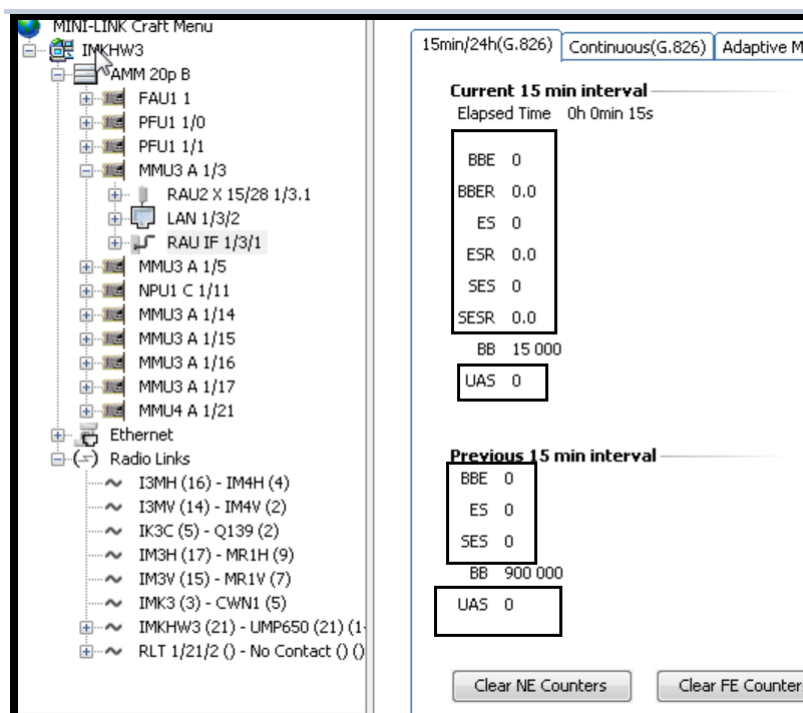
Select RF loop and save it. Then check the Receiving level of the link, alarms on the link and errors on the link.

Note: Rx level should be 40 to 60, alarms free and errors free on the link. If any mismatch please change the hardware accordingly (MMU, RAU & IF cable or IF connector) at same end. For confirming MMU issue we can use IF loop also in the same way.

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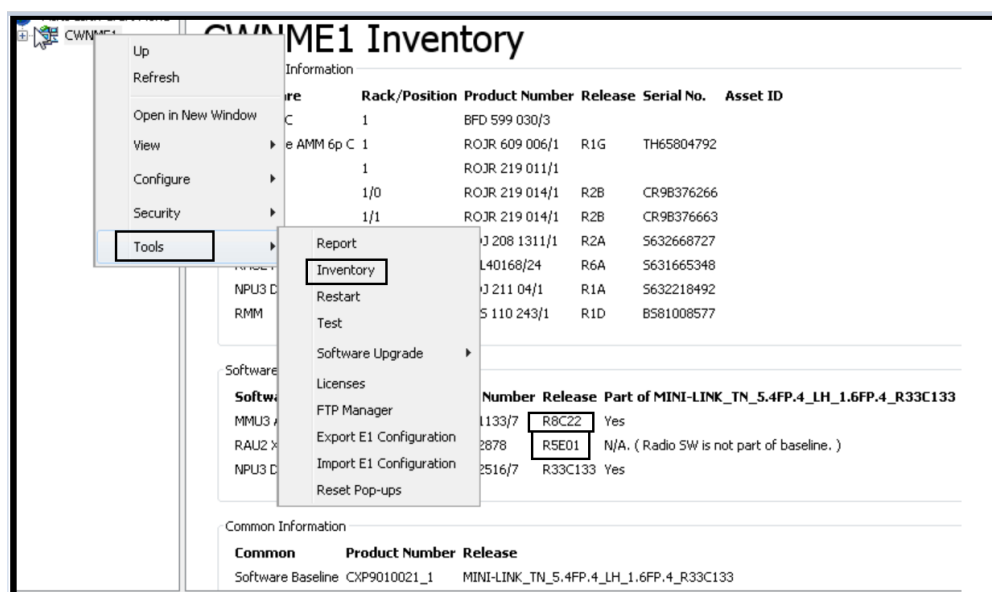
Errors in link:



If any errors found then do hardware change one by one, Issue may resolve when clear the IF connector issue at where we are getting errors.

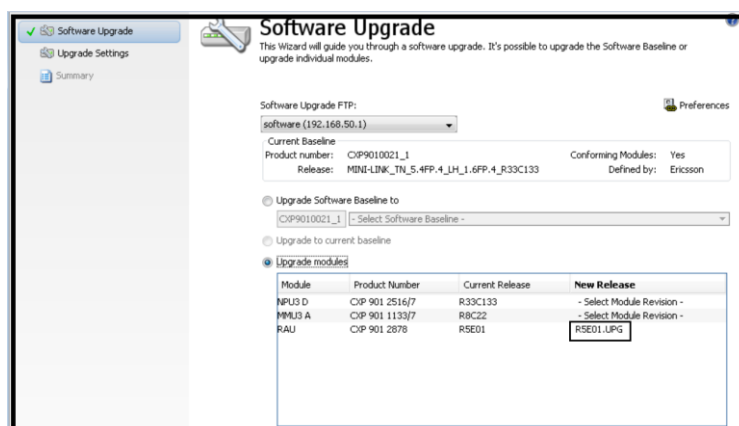
Replacing RAU/MMU process:

- Identify Current Hardware and Software, For the same go to Inventory Window of node. Get the information of RAU type, R-State and software version of old radio.



- Check the compatibility of new radio/MMU, it must be compatible with the software on the connected MMU.
- If new Radio/MMU is not compatible with the SBL on the connected MMU, software MMU/AMM must be upgraded.
- Check if the new radio supports the configuration with respect to the selected maximum modulation and the channel spacing. If the new radio does not support the current configuration, before doing the replacement, change the configuration of link that the new radio can support.
- For Replacing the Radio, first disconnect the IF cable from MMU, Replace the RADIO. Reconnect the station radio cable to the MMU. The radio is automatically configured to the same settings as the old radio.
- If RAU upgrade is required, connect the node with FTP server having required software type of RAU.
- In the node go to software upgrade window. Select the new release software as per recommendation and compatibility. Once downloaded, activate the same and check the status of RAU in inventory window.

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Note: In this example we are not changing any hardware as already found interference. This snapshot is for where we need to upgrade a RAU software.

- h. Do the configuration as old if need, Now verify the hop is working properly.
- i. Verify SES 24 h threshold crossing alarm is cleared from both near end and far end nodes for the link.

D: Post Check

1. Check alarm should be cleared from node.
2. No new alarm should be generated on node.
3. All services should be restored.

E: Fall Back Procedure

Since MOP is for clearing Errors on the link, so Fall-back procedure is not required.

Please note that the method of procedure is prepared as the current scenario, available devices, and deployed software version. So activity steps and impact can vary depending upon the scenario.in that case we will further communicate.