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MOP for AM_DOWNSHIFT alarm clearance

Table of contents:

A. Introduction

This document outlines the step-by-step process involved in MOP for AM_DOWNSHIFT alarm clearance.

The AM_DOWNSHIFT alarm indicates the downshift of the AM scheme. This alarm occurs after the AM mode is downshifted from the highest-order modulation scheme to the lower-order modulation scheme. After the AM mode is upshifted from the lower-order modulation scheme to the highest-order modulation scheme, this alarm is cleared.SA CR also required as activity involves interference test and ODU TX/RX abnormal power test.

B. PRE-CHECK

1. *Check for the mandatory fields in Standard CR Template for if any of the mandatory fields is not duly filled, CR should not be taken for execution.*

2. *Check the data received from authorized Transmission engineer for correctness & all essential data.*

3. *If Circle Head/ CR form does not approve the CR is not duly filled, CR should not be taken for execution.*

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4. *Every Outage involve activity should be performed in Night Shift Only.*

5. *Need backup of Node where the activity is performed before any activity.*

6. *If any Critical/SA alarms, Don't perform activity on the node and ask circle to clear the Alarm.*

7. *In case of latency, Don't perform activity on the node*

❖ *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.*

Current Alarms before activity

Severity ∧	Alarm ID ∧	Name ∧	Alarm Sour... ∧	... ∧	Location Information ∧	Additional Information	First Occurred (ST) ∧	Last Occurred (ST) ∧	Cleared On (ST) ∧	Acknowledge
Major	13050	AM_DOWNSHIFT	TCDR1	1	14-ISM6-2(TCDR1-TCDR4_HORT)-...		11/16/2019 14:11:39	11/16/2019 14:11:39		11/17/2019 0

C. Procedure:

Cause 1: The external factors (for example, the climate) cause the degradation of the working channels.

    a. When the external factors (for example, the climate) cause the degradation of the working channels, the downshift of the AM scheme is normal. Hence, no measures should be taken to handle the alarm.

Cause 2: There are interferences around the working channels.

    a. Eliminate the interferences around the working channels.

Cause 3: The ODU at the transmit end has abnormal transmit power.

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a. Use the NMS to check whether the transmit power of the ODU at the transmit end is normal, use RFU/IF loopback test to identify the issue at either end

Cause 4: The ODU at the receive end has abnormal receive power.

a. Use the NMS to check whether the receive power of the ODU at the receive end is normal, use RFU/IF loopback test to identify the issue at either end.

Procedure for ODU/IF loopback with SNR guidelines is provided below:

Note: Interference will interrupt service

1. Interference check: firstly check the if MW link have interference, if have, try to change the frequency to avoid the interference; if does not have, please go to the next step
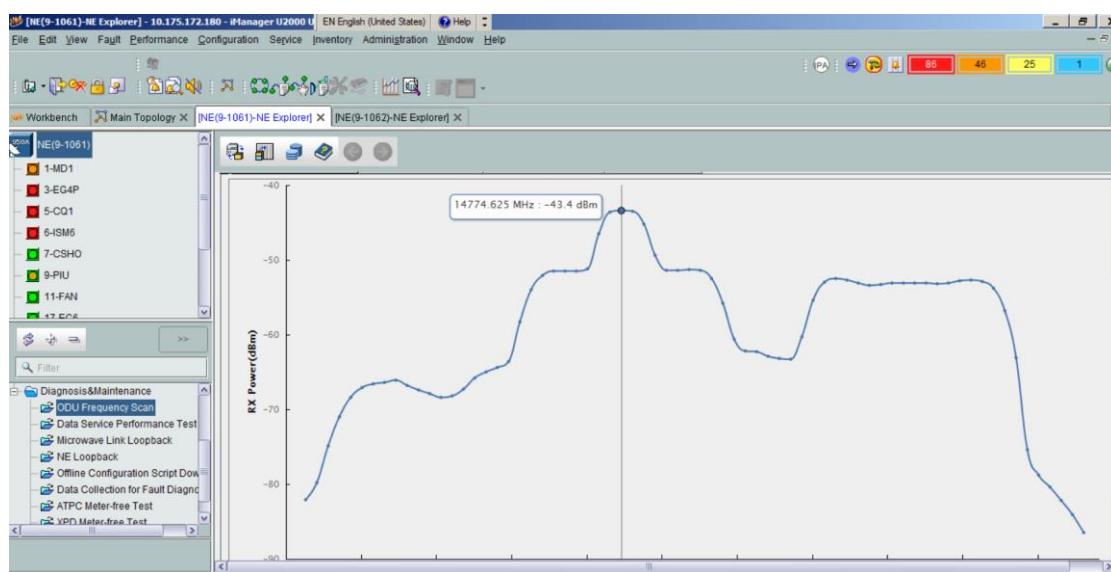

Note: loopback will interrupt service

2. before inloop, should mute all other ODUs in same link, except the one will inloop
Select the NE, do inloop;

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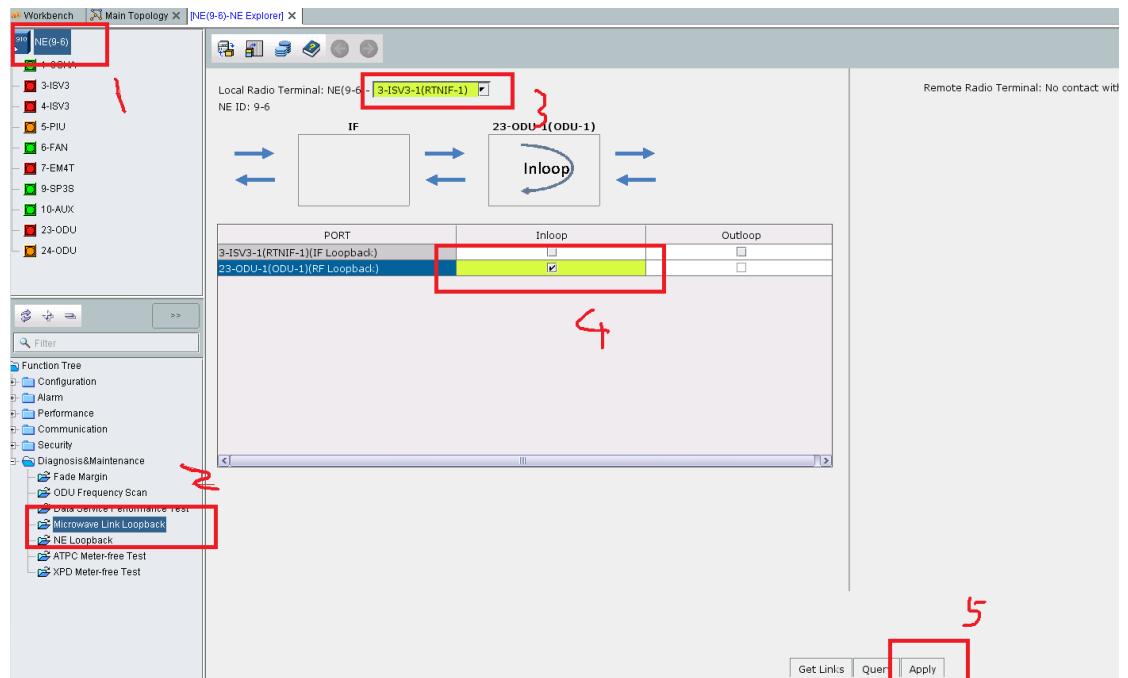
Then check the MSE(Or SNR) current; if the MSE is lower than 32dB (if your U2000 shows MSE, the value should be negative),go to the step 3; f the MSE is bigger than 32dB, means these side does not have problem, need check the other side;
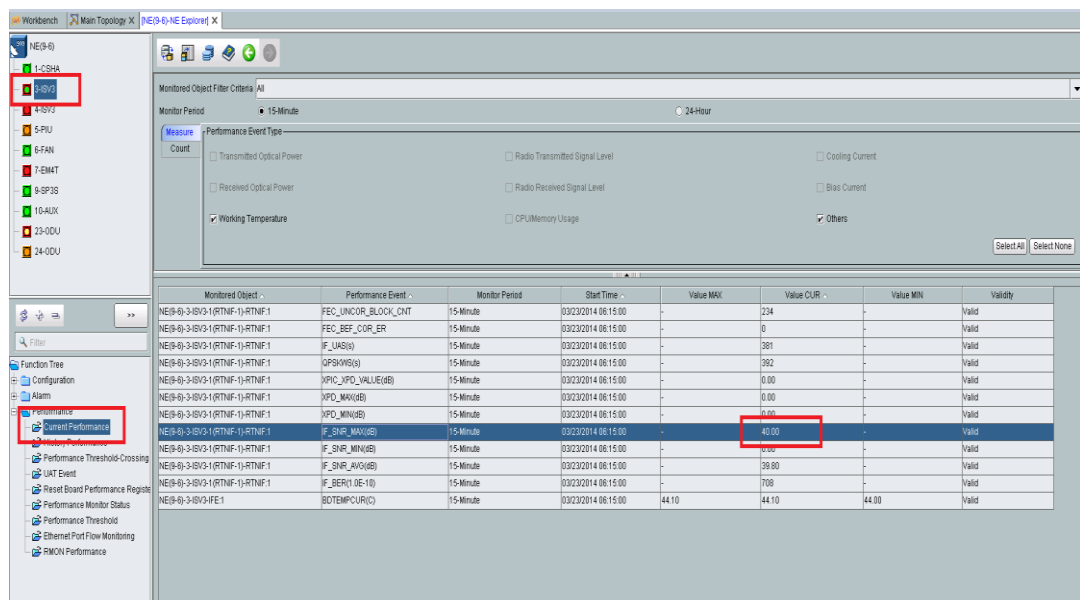
3, Then do the IF board port inloop,if the MSE is big than 37dB (if your U2000 shows MSE, the value should be negative),means the ODU has problem, need replace the ODU; if the MSE is less than 37dB,means the IF board has problem, need replace the IF board

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D. Post Activity Health Check:

Please check alarm will be clear and services also restored. Need to confirm the service status with all the stake holders.

E. Fall Back Procedure: -

Since this activity is non-service impacting and does not affect any running server/application processes hence no fall-back procedure is required.

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