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Abhisek De				
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MOP of High BER of Ethernet Port (198097684) for ZTE Site

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Activity Description

This activity is for E2E troubleshooting and alarm clearance of High BER of ethernet port(198097684).

Attached is the details to be followed. As this need to be followed as guideline.

Alarm Name	High BER of ethernet port(198097684)
Alarm Description	Bit error rate exceeded threshold IN PICO RRU (Q-Cell).
Possible Causes – arrange in logical order	1. The length of the network cable exceeds 100 m. 2. The registered jacks of the network cable are not well crimped. 3. The rate of the network cable does not match that of the electrical port.

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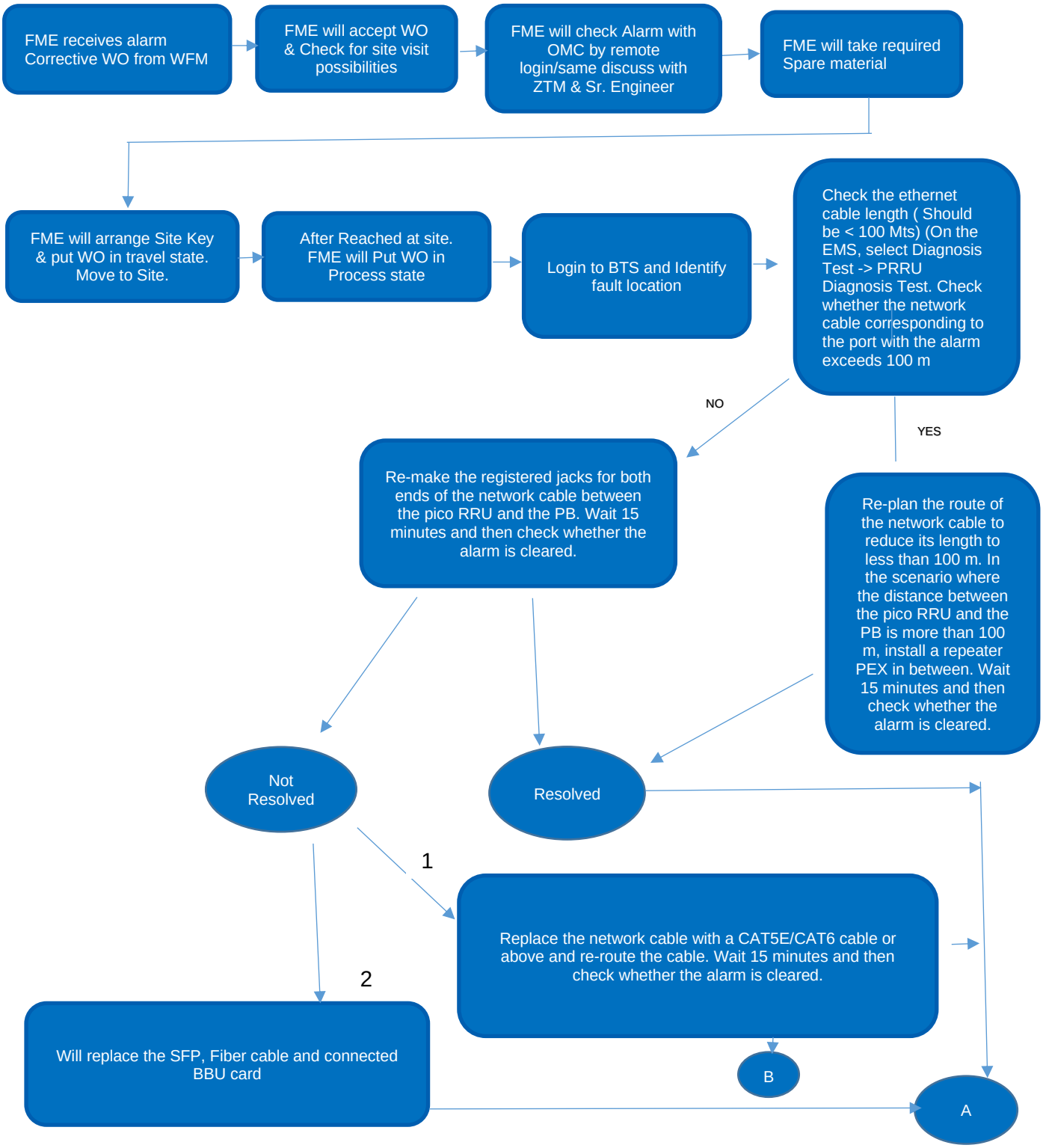
Flow Chart



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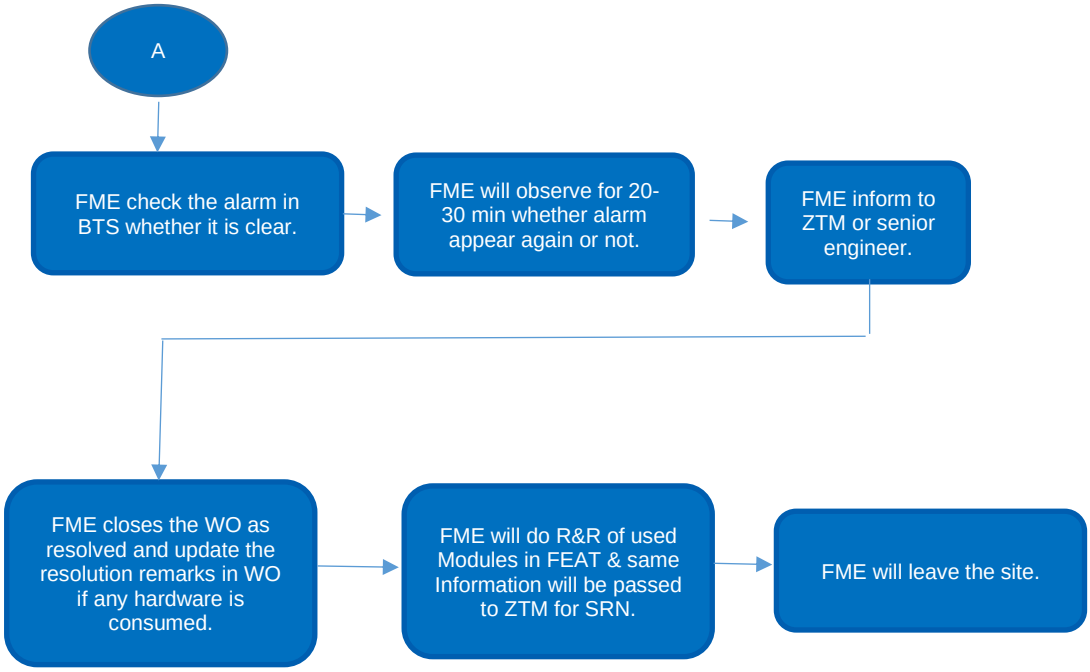

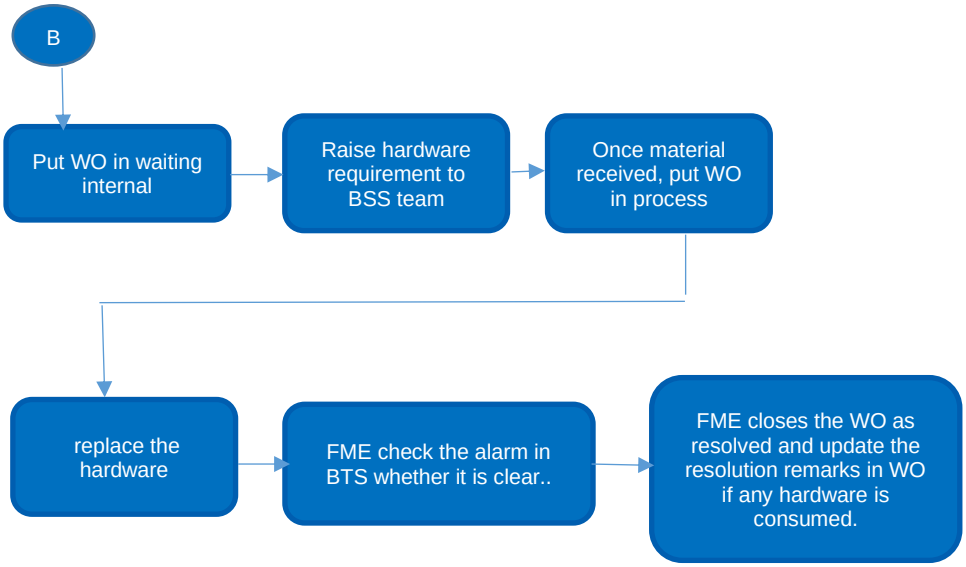

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Activity Summary

1	Corrective WO of alarm is received on WFM portal
2	FME will Accept the WO
3	Put WO in travel
4	After reaching site - put WO in process
5	Login the BTS & Check alarm status and fault location
6	Will troubleshoot alarm as per MOP
7	FME will check in BTS (Alarm cleared or not)
8	If cleared, then Put WO in closed state
9	If not cleared, then check either hardware faulty
10	Put Work order in Waiting internal if any HW Req at site
11	Raise Req of Hardware to BSS Team
12	Once Material received again put WO in Travel mode
13	After reaching site - put WO in process
14	Replace the hardware
15	Check from BTS Login that alarm cleared or not after hardware replaced
16	Once Alarm Cleared
17	FME will close the WO as resolved

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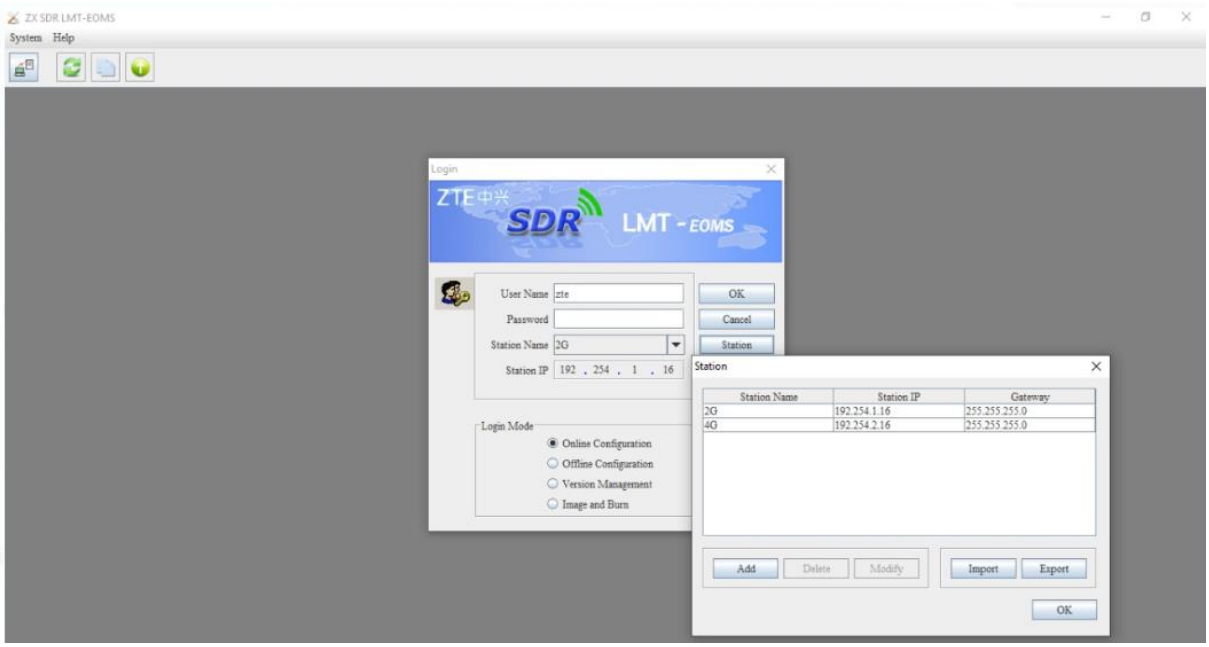
Activity Details

Pre requisites:

1) SVD WO for High BER of ethernet port(198097684).
2) Alarm on OneFM/Netnumen/WFM.

Case : High BER of ethernet port(198097684) alarm on 1 cell

A) Login in 2G BBU/ enodeb as per RAN MOP via ZX SDR LMT OEMS connect using LAN cable



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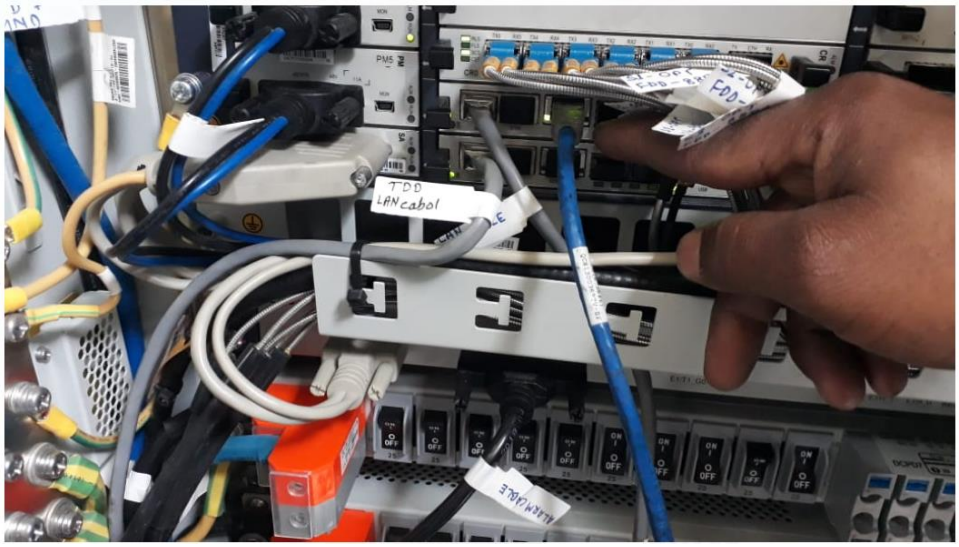

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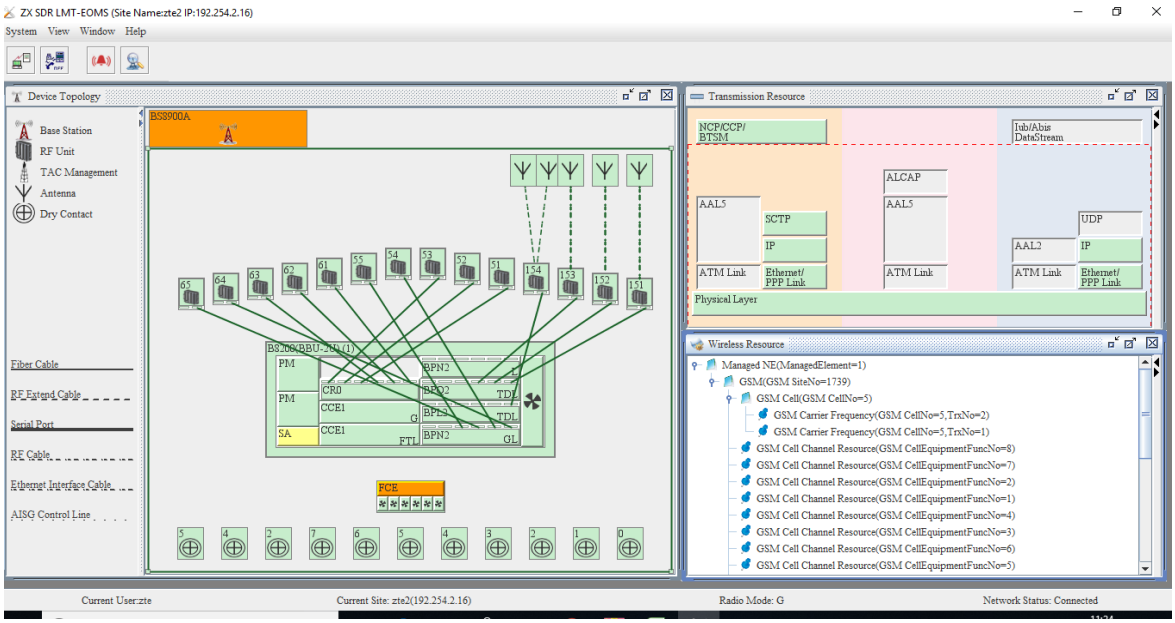
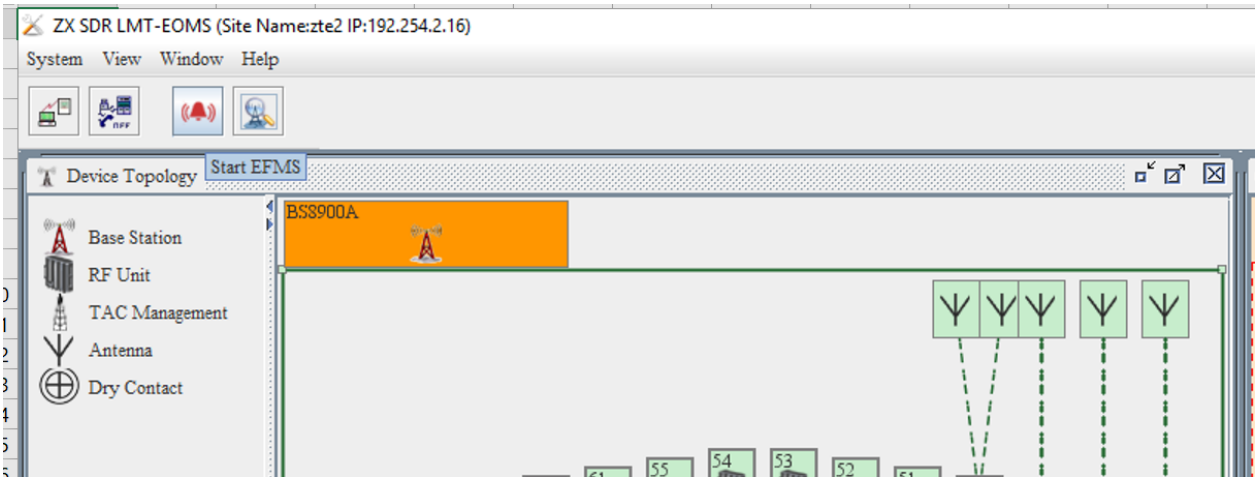
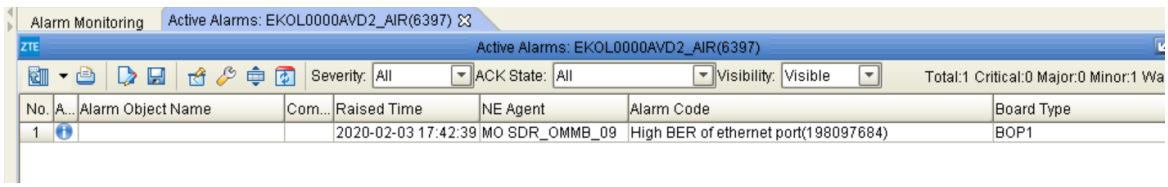


a) Start EFMS to view alarm window



b) Double click on the alarm to check the alarm description or can check from netnumen.



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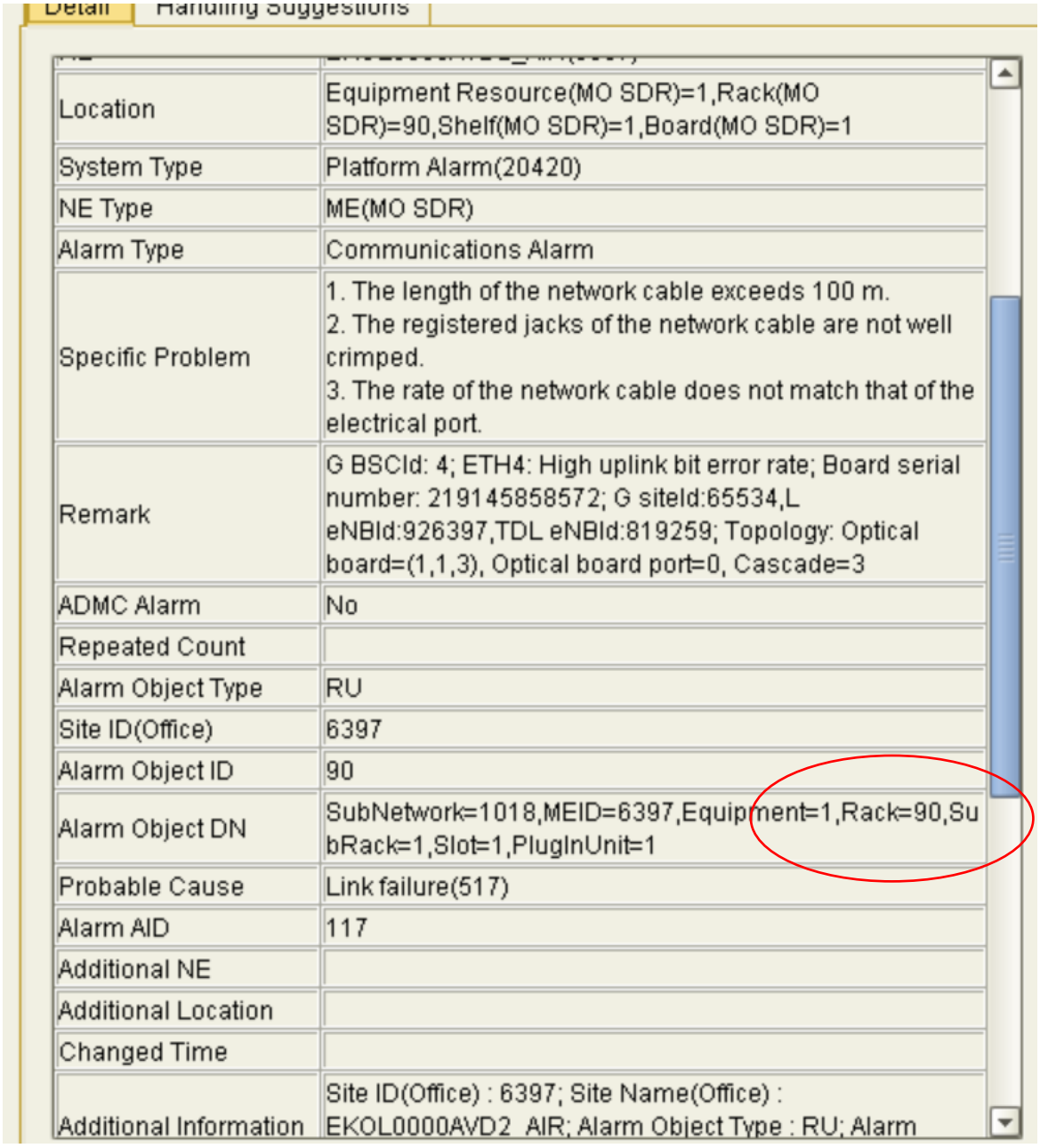
c) Click on the solution tab to check the check the probable cause



Location	Equipment Resource(MO SDR)=1,Rack(MO SDR)=90,Shelf(MO SDR)=1,Board(MO SDR)=1
System Type	Platform Alarm(20420)
NE Type	ME(MO SDR)
Alarm Type	Communications Alarm
Specific Problem	1. The length of the network cable exceeds 100 m. 2. The registered jacks of the network cable are not well crimped. 3. The rate of the network cable does not match that of the electrical port.
Remark	G BSCId: 4; ETH4: High uplink bit error rate; Board serial number: 219145858572; G siteId:65534,L eNBId:926397,TDL eNBId:819259; Topology: Optical board=(1,1,3), Optical board port=0, Cascade=3
ADMC Alarm	No
Repeated Count	
Alarm Object Type	RU
Site ID(Office)	6397
Alarm Object ID	90
Alarm Object DN	SubNetwork=1018,MEID=6397,Equipment=1,Rack=90,SubRack=1,Slot=1,PlugInUnit=1
Probable Cause	Link failure(517)
Alarm AID	117
Additional NE	
Additional Location	
Changed Time	
Additional Information	Site ID(Office) : 6397; Site Name(Office) : EKOL0000AVD2_AIR; Alarm Object Type : RU; Alarm

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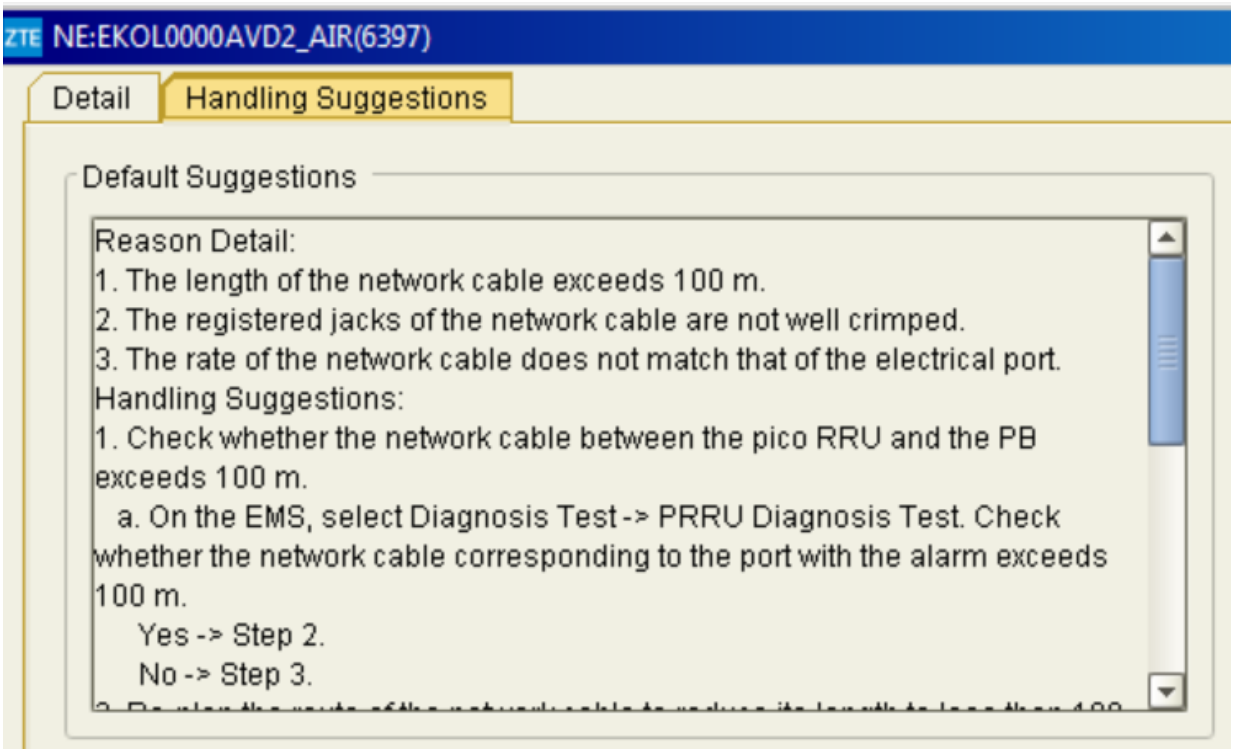

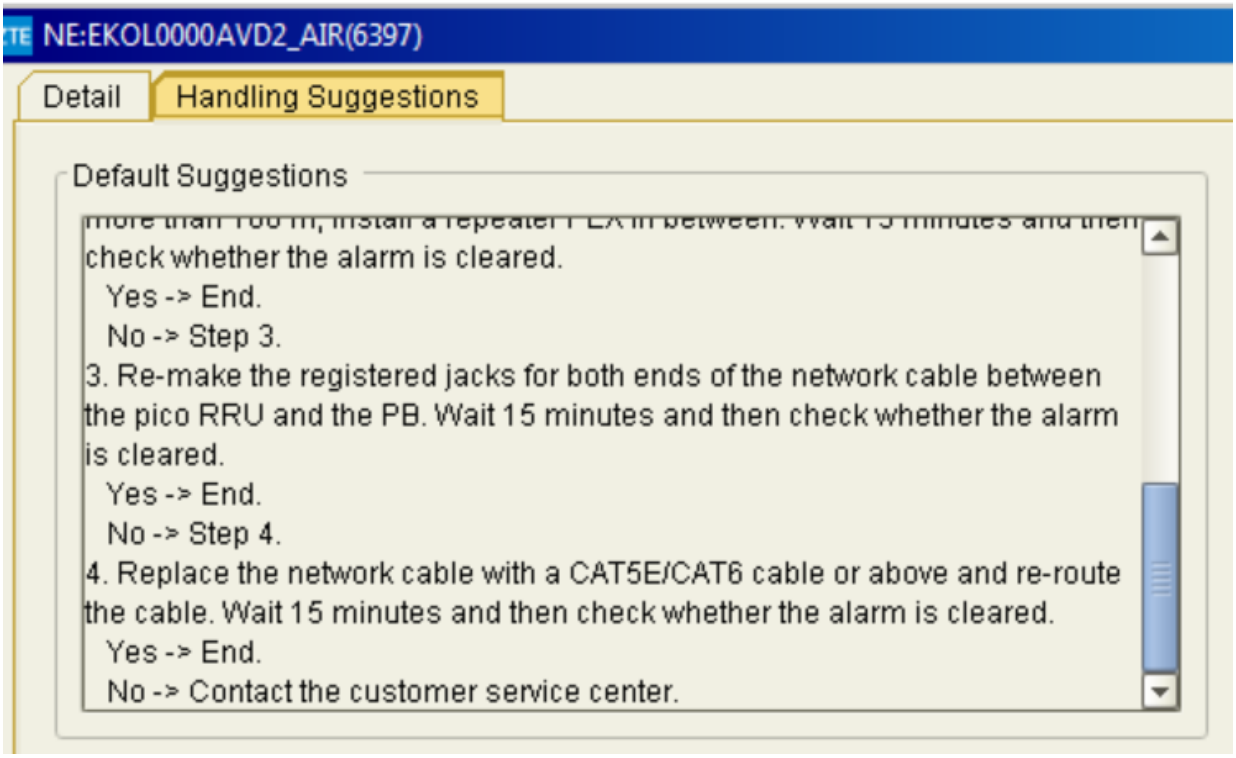

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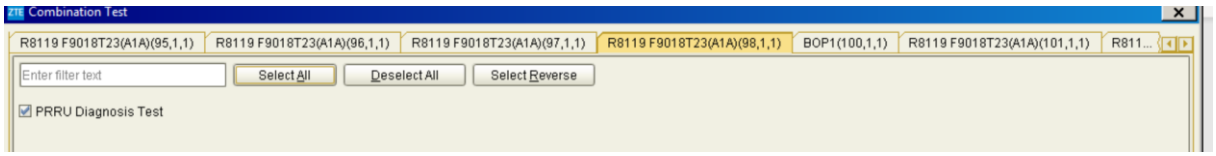
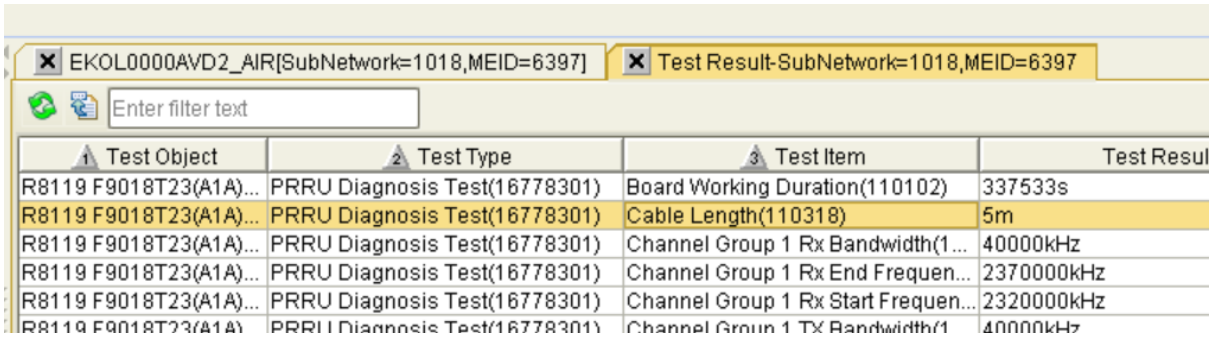
d) On the EMS, select Diagnosis Test -> PRRU Diagnosis Test. Check whether the network cable corresponding to the port with the alarm exceeds 100 m.
Select all PICO RRU of BOP1(90,1,1)



Check the cable length:-



Test Object	Test Type	Test Item	Test Resul
R8119 F9018T23(A1A)...	PRRU Diagnosis Test(16778301)	Board Working Duration(110102)	337533s
R8119 F9018T23(A1A)...	PRRU Diagnosis Test(16778301)	Cable Length(110318)	5m
R8119 F9018T23(A1A)...	PRRU Diagnosis Test(16778301)	Channel Group 1 Rx Bandwidth(1...	40000kHz
R8119 F9018T23(A1A)...	PRRU Diagnosis Test(16778301)	Channel Group 1 Rx End Frequen...	2370000kHz
R8119 F9018T23(A1A)...	PRRU Diagnosis Test(16778301)	Channel Group 1 Rx Start Frequen...	2320000kHz
R8119 F9018T23(A1A)...	PRRU Diagnosis Test(16778301)	Channel Group 1 TX Bandwidth(1...	40000kHz

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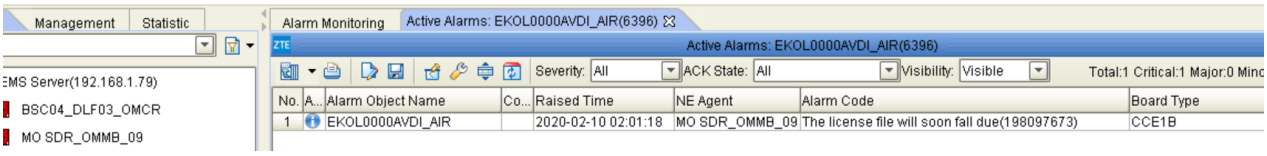
e) Re-make the registered jacks for both ends of the network cable between the pico RRU and the PB
f) Replace the network cable with a CAT5E/CAT6 cable or above and re-route the cable.
g) Replace the SFP, Fiber cable and connected BBU card.
h) Check in EFMS/OneFM/Netnumen whether alarm cleared or not.



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Post Analysis

Step No.	Step Name/Step Type	Command	Field	Mandatory (Y/N)	Expected Value
1	FME will check at One FM/Netnumen after 30 minutes to check alarm	As per attached MOP in traffic check status step---**Refer RAN MOP**	RAN	Y	As per MOP
2	BSS Team will check after 24 hrs if alarm has reappeared				