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Rakesh Kumar Panda					
Approved	Checked	Date	Rev	Reference	
		07-02-2020	Ver1.0		

MOP of SFP Stability Problem Alarm for Ericsson Site

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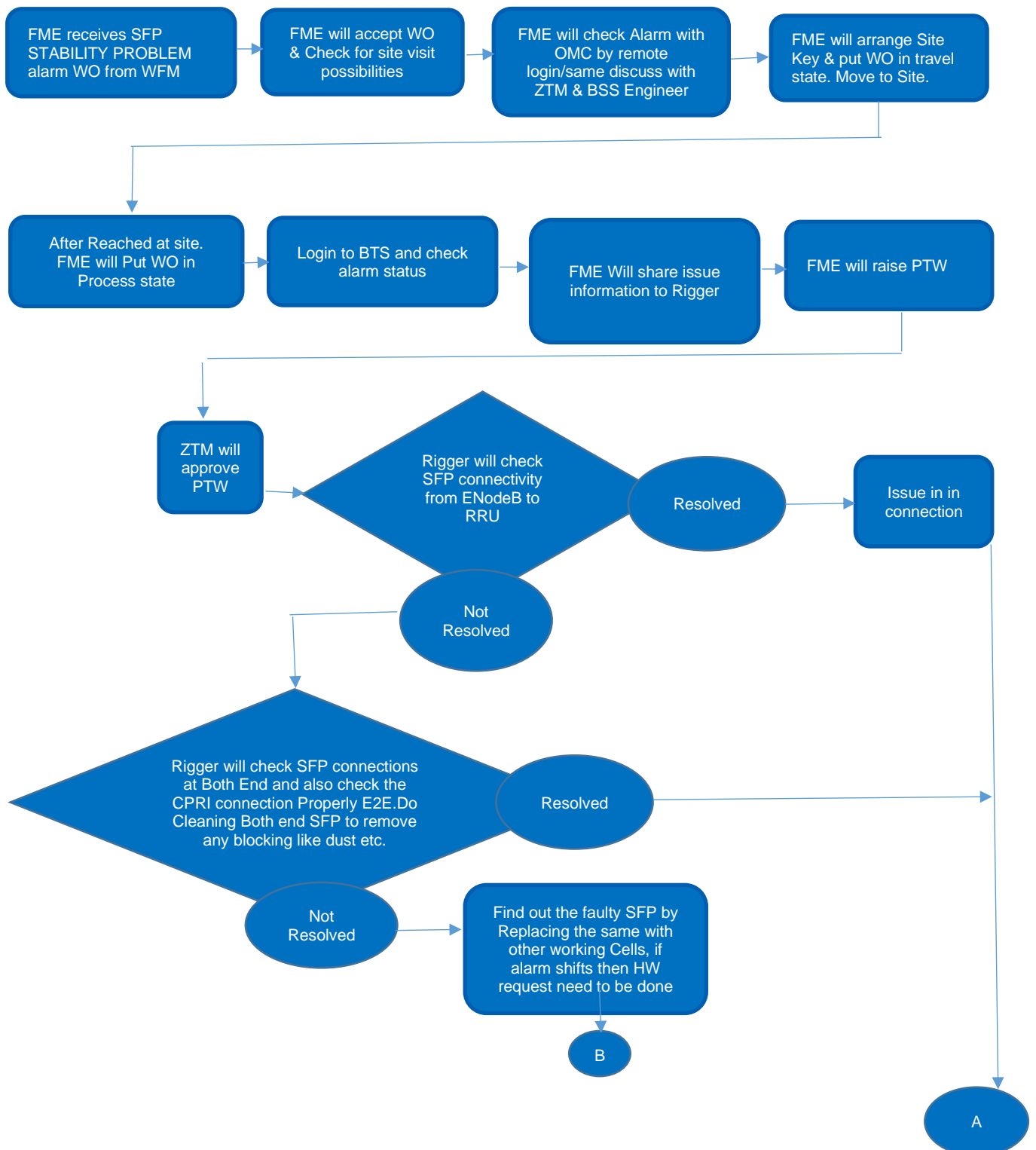| Prepared (also subject responsible if other)		No.			
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Activity Description

This activity is for E2E troubleshooting and Clearance of SFP STABILITY PROBLEM Alarm on 4G Cells/Site.

Attached are the details to be followed by RAN Operation Team. As this need to be followed as guideline.

Alarm Name	SFP STABILITY PROBLEM at ONE FM end
Alarm Description	SFP STABILITY PROBLEM alarm due low RX_LOW_PWR Alarm
Possible Causes	1. OFP Cable bend or loose at either of the Two Ends.
	2. Blocking in between SFP and Port or SFP and CPRI like dust etc.

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Flow Chart

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┌─────────────────┐   ┌─────────────────┐   ┌─────────────────┐   ┌─────────────────┐
│ FME receives SFP│   │ FME will accept │   │ FME will check  │   │ FME will arrange│
│ STABILITY       │──▶│ WO & Check for  │──▶│ Alarm with OMC  │──▶│ Site Key & put  │
│ PROBLEM alarm   │   │ site visit      │   │ by remote       │   │ WO in travel    │
│ WO from WFM     │   │ possibilities   │   │ login/same      │   │ state. Move to  │
│                 │   │                 │   │ discuss with    │   │ Site.           │
│                 │   │                 │   │ ZTM & BSS       │   │                 │
│                 │   │                 │   │ Engineer        │   │                 │
└─────────────────┘   └─────────────────┘   └─────────────────┘   └─────────────────┘
```

- After Reached at site. FME will Put WO in Process state
- Login to BTS and check alarm status
- FME Will share issue information to Rigger
- FME will raise PTW

- ZTM will approve PTW

- Rigger will check SFP connectivity from ENodeB to RRU
  - Resolved → Issue in connection
  - Not Resolved

- Rigger will check SFP connections at Both End and also check the CPRI connection Properly E2E. Do Cleaning Both end SFP to remove any blocking like dust etc.
  - Resolved
  - Not Resolved → Find out the faulty SFP by Replacing the same with other working Cells, if alarm shifts then HW request need to be done → B

- A

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A

FME check the alarm in BTS whether it is clear

If alarm cleared then rigger will come down.

FME will observe for 20-30 min whether alarm appear again or not.

FME inform to ZTM or BSS Engineer.

FME closes the WO as resolved and update the resolution.

FME will also update the resolution remarks in WO if any hardware is consumed.

FME will leave the site.

B

Put WO in waiting internal

Raise hardware requirement to BSS team

Once material received, put WO in travel mode

Reach site and put WO in progress

FME will raise PTW

ZTM will approve PTW

Rigger will replace the hardware

FME check the alarm in BTS whether it is clear

FME closes the WO as resolved and update the resolution remarks in WO if any hardware is consumed.

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Activity Summary

1	Corrective WO SFP STABILITY PROBLEM 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
6	Raise PTW to ZTM
7	PTW Approval done by ZTM
8	Rigger will check SFP connections at Both End and also check the CPRI connection Properly E2E.Do Cleaning Both end SFP to remove any blocking like dust etc.
9	FME will check in BTS (Alarm cleared or not)
10	If cleared, then Put WO in closed state
11	If not cleared, then SWAP the problematic SFP with other working Cells if alarm shifted then SFP required at Site (HW Req.)
12	Put Work order in Waiting internal if any HW Req at site
13	Raise Req of Hardware to BSS Team
14	Once Material received again put WO in Travel mode
15	After reaching site - put WO in process
16	Raise PTW to ZTM
17	PTW Approval done by ZTM
18	Replace the hardware
19	Check from BTS Login that alarm cleared or not after hardware replaced
20	Once Alarm Cleared
21	FME will close the WO as resolved

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Activity Details

Pre requisites:

1) SVD WO for SFP STABILITY PROBLEM alarm.
2) Alarm on One FM /WFM.

When SFP STABILITY PROBLEM alarm Alarms reflects, Below the activities need to be done step by step to clear the alarm.

a) Login in 4G BB/ eNodeB as per RAN MOP via LMT OEMS connect using LAN cable

Change the Laptop IP
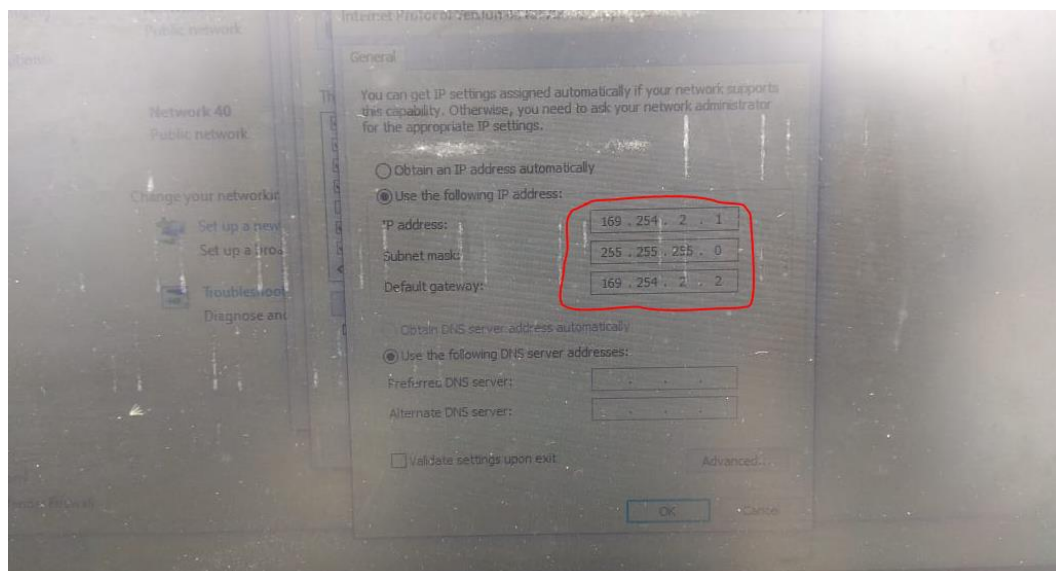
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Login the E-NodeB
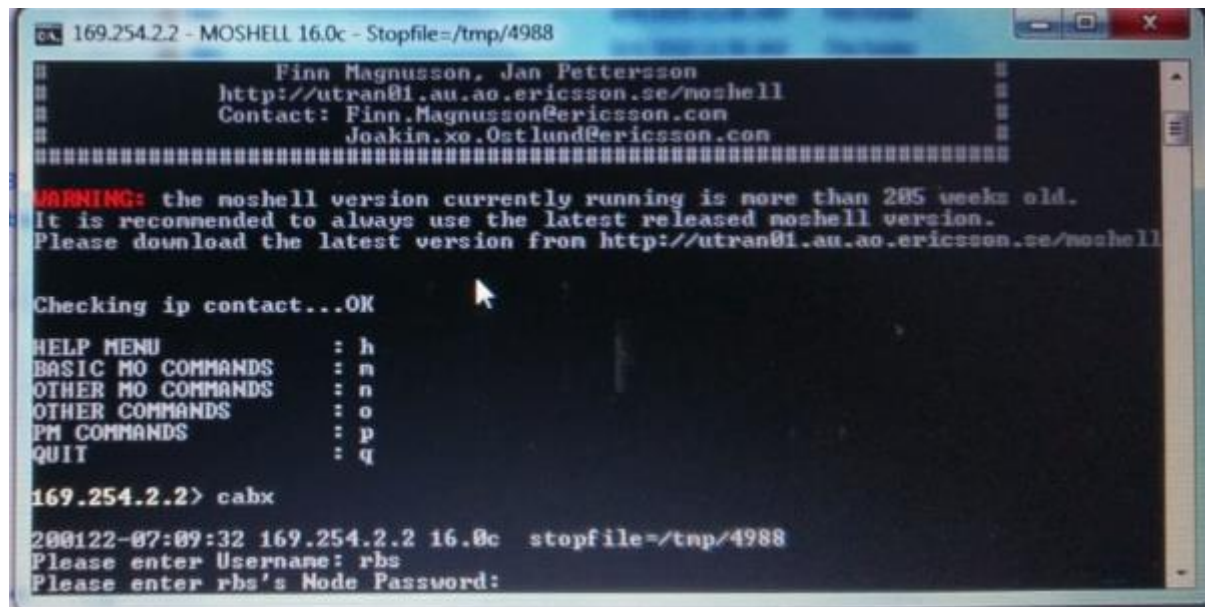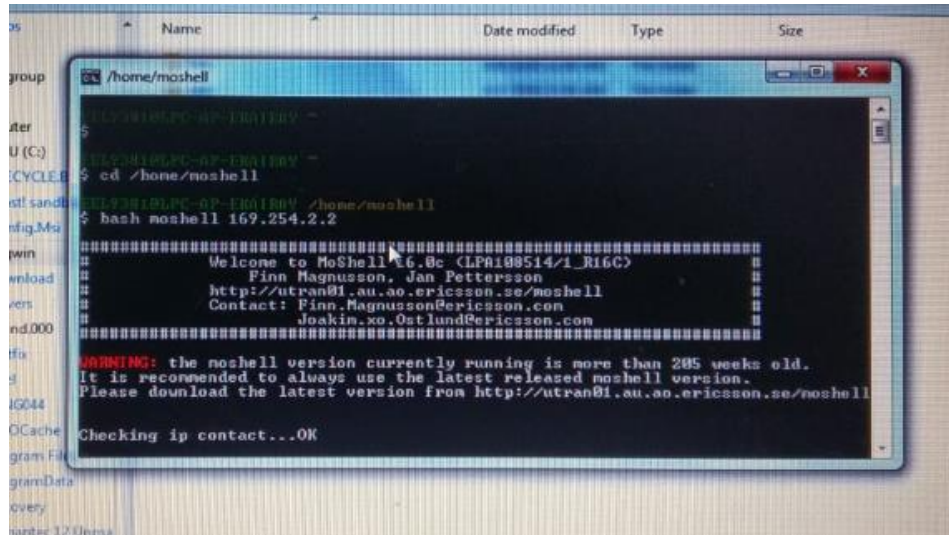
b) Verify the Alarm status :

c) Check the SFP Connectivity from ENodeB to RRU End (Connectivity Diagram)

AT EnodeB End   AT RRU END
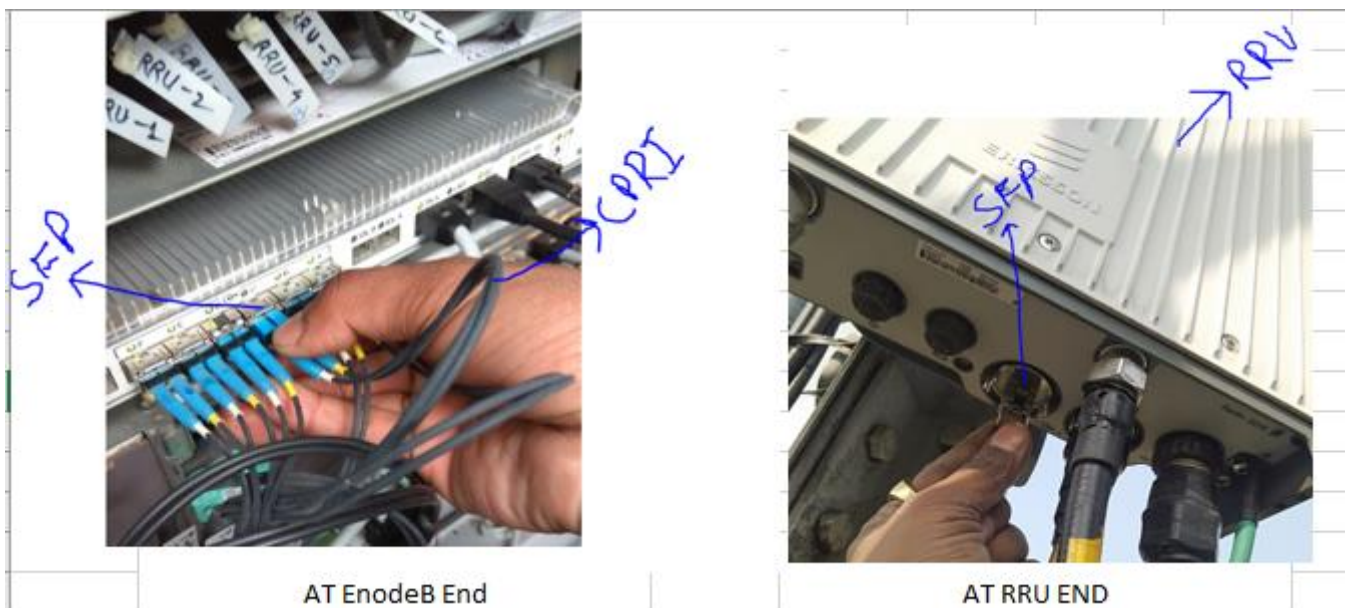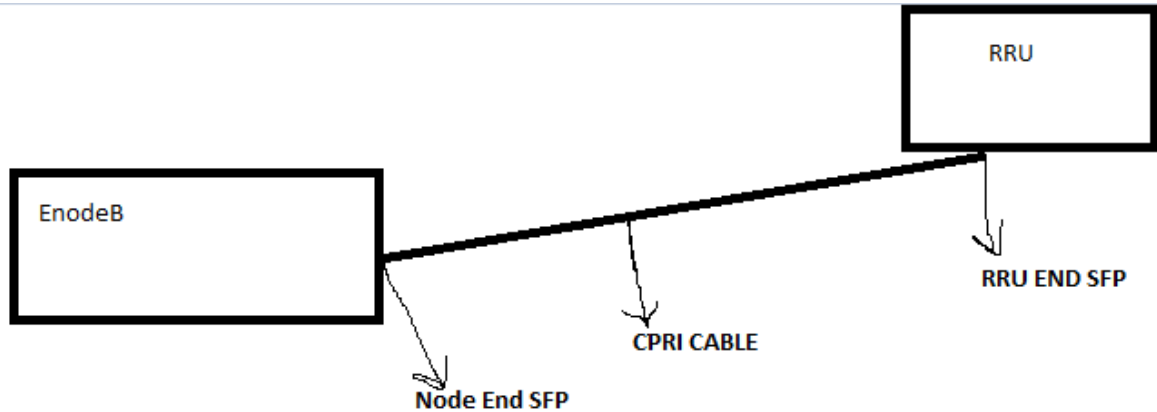
d) SFP connections at Both End need to be checked and also check the CPRI connection Properly E2E.Do Cleaning Both end SFP to remove any blocking like dust etc.

e) Check the SFP Stability Fault alarm status by login to ENodeB post activity.

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```
LSOM01> altk

200207-15:40:48 100.65.27.130 18.0e MSRBS_NODE_MODEL_17.Q3_330.27706.46_f74f stopfile=/tmp/26058

$ssh_pid = 288

Connected to 100.65.27.130 (SubNetwork=ONRM_ROOT_MO_R,SubNetwork=LTE,MeContext=LSOM01,ManagedElement=LSOM01)

Collecting Alarms...
...........
===============================================================================================================
Date & Time (UTC)   S Specific Problem            MO (Cause/AdditionalInfo)
===============================================================================================================
2020-01-13 10:38:29 w Software Management Lost Connection to File Server SwM=1,UpgradePackage=CXP9024418/6-R21L78 (Uri missing)
2020-01-13 10:43:05 M Inconsistent Configuration      FieldReplaceableUnit=SAU-1 (No hardware detected for the configured FieldReplaceableUnit)
>>> Total: 2 Alarms (0 Critical, 1 Major)

LSOM01>
```

f)   If tower work involves, perform PTW

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Post Analysis

Step No.	Step Name/Step Type	Command	Field	Mandatory (Y/N)	Expected Result
1	FME will visit the site after 30 minutes to check	As per MOP and run the alarm check command to confirm its Cleared	RAN	Y	As per MOP
2	BSS Team will check after 24 hrs if alarm has reappeared	As per MOP			

NOTE:

1. Once SFP Stability Fault alarm reported, call and data quality will be degraded and KPI will impact.