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Harish Kumar				
Approved	Checked	Date	Rev	Reference
		25-01-2020	Ver1.0	

MOP of Tx Out of order Alarm at Nokia Site

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Activity Description

This activity is for E2E troubleshooting and alarm clearance of TX out of order on RF Module Port.

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

Alarm Name	1. TX out of order 2. Transmission path failure
Alarm Description	1. CELL OPERATION DEGRADED 2. BASE STATION HARDWARE PROBLEM
Possible Causes	1. RF Module RF Port Faulty

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Flow Chart

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Activity Details

Tx Out of Order Alarm Information & Checking for corrective action

1. FME receive work order in WFM of VSWR alarm as a corrective work order
2. FME accept WO as received/WO acceptance time should be below then 45 Min...
3. FME check the alarm with help of OMC by remote login of BTS and discuss with ZTM and senior engineer about resolution…

   A. FME will reset RF Module with Help of OMC & Observe for 20 to 30 Min. If alarm cleared then FME will close WO in NVD
   B. If alarm not clear after reset then FME Will follow below steps

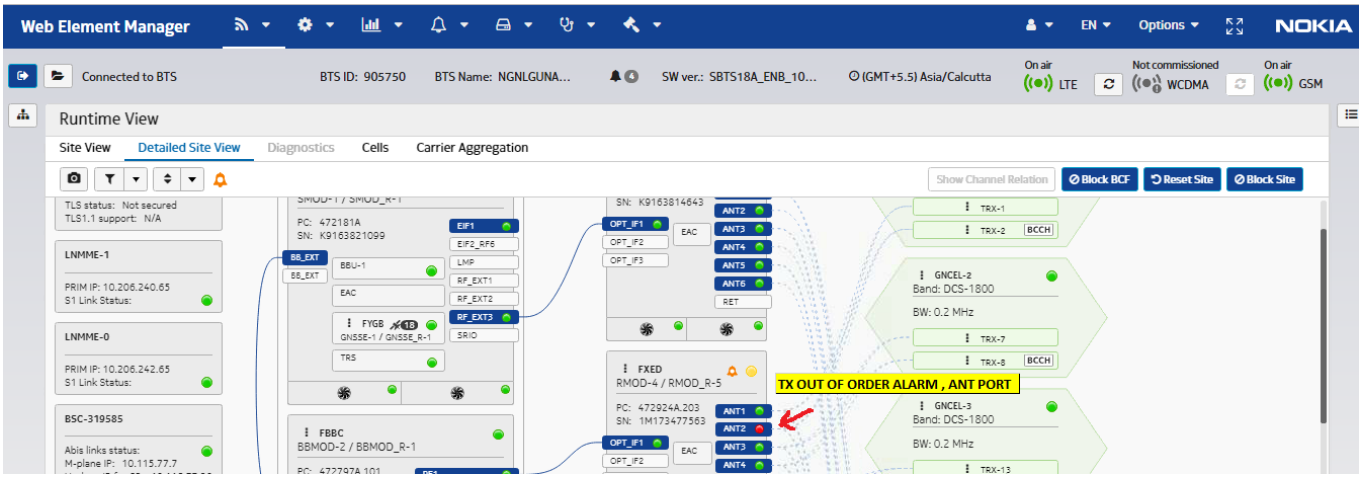
4. If possible FME visit site on same day otherwise will plan on next day (Need to verification Required Rigger can access Tower after reached site as per OHS Rules).
5. ZTM will suggest to take required Spare Material

Site Movement & Spare Arrangement

1. FME arrange key of site from respective Infra partner.
2. FME take required materials to resolve the alarm (As per Remote Login Observation & ZTM suggestion)
3. Now FME move to site and put WO in Travel state

Alarm issue Identification & Rectification

1. When FME reached at site, he put WO in progress state.
2. FME will login to the BTS & find faulty port RF Module detail



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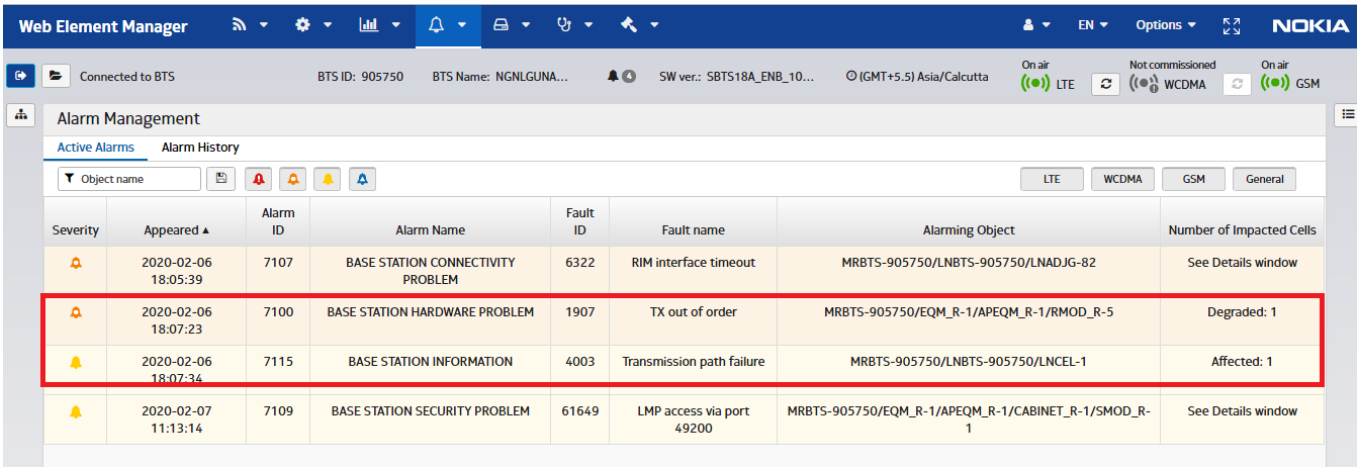

Severity	Appeared ▲	Alarm ID	Alarm Name	Fault ID	Fault name	Alarming Object	Number of Impacted Cells
	2020-02-06 18:05:39	7107	BASE STATION CONNECTIVITY PROBLEM	6322	RIM interface timeout	MRBTS-905750/LNBTS-905750/LNADJG-82	See Details window
	2020-02-06 18:07:23	7100	BASE STATION HARDWARE PROBLEM	1907	TX out of order	MRBTS-905750/EQM_R-1/APEQM_R-1/RMOD_R-5	Degraded: 1
	2020-02-06 18:07:34	7115	BASE STATION INFORMATION	4003	Transmission path failure	MRBTS-905750/LNBTS-905750/LNCEL-1	Affected: 1
	2020-02-07 11:13:14	7109	BASE STATION SECURITY PROBLEM	61649	LMP access via port 49200	MRBTS-905750/EQM_R-1/APEQM_R-1/CABINET_R-1/SMOD_R-1	See Details window

3. FME will share same information to rigger (Faulty RF Module Sr. No.)
4. FME will ensure the PPE kit, work at height certificate, medical certificate, present healthy physical condition, site condition including hygiene
5. Raise PTW request

6. ZTM check the PTW and approve it.
7. Rigger will climb the tower and check below Points for actual issue identification.
8. Rigger will replace faulty RF Module

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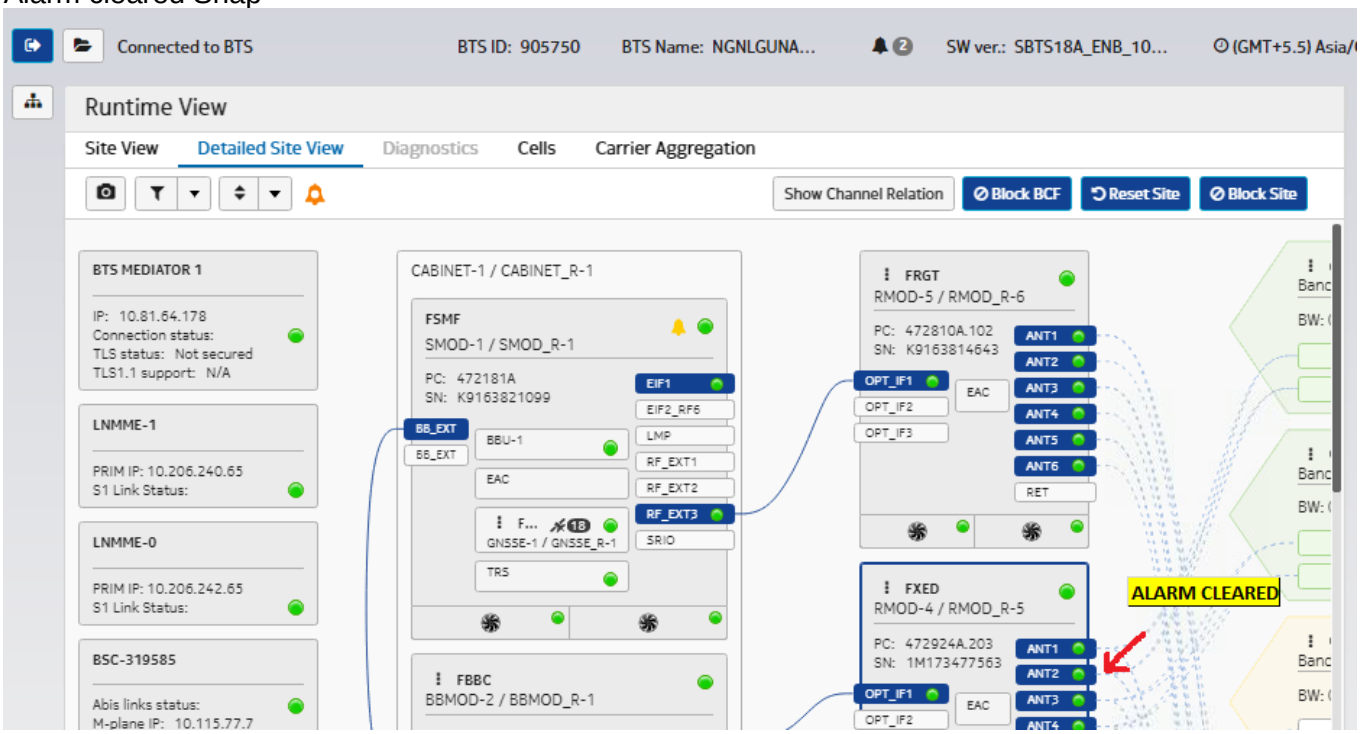
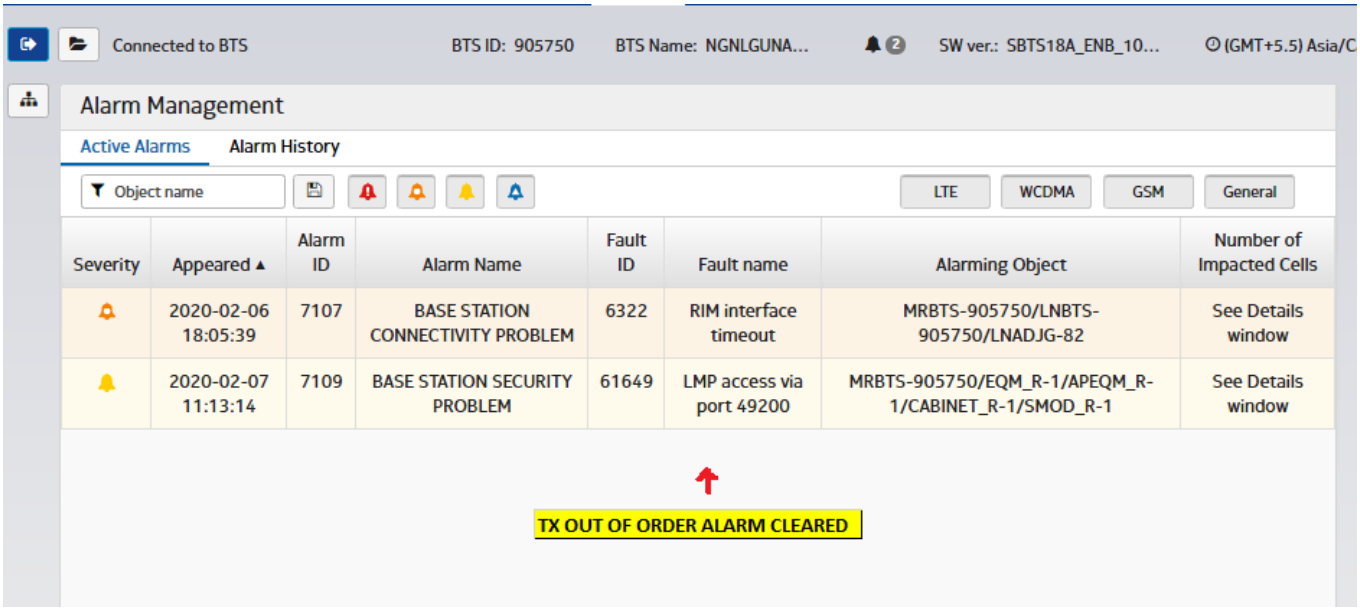
9. FME check the alarm in BTS whether it is clear…

Alarm cleared Snap





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10. Alarm is cleared, then rigger will come down
11. FME will observe for 20-30 min whether alarm appear again or not.
12. If alarm don’t appear again it means alarm resolved, then FME inform to ZTM or Senior engineer about the same
13. FME closes the WO as resolved and update the resolution remarks in WO if any hardware or consumable material used.
14. FME will do R&R of used Modules in FEAT & same Information will pass to ZTM for SRN.
15. FME leave the site.