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Approved	Checked	Date	Rev	Reference
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MOP of Sync Issue (FDD/TDD) for Nokia Site

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Activity Description

Alarm Number	Severity	Alarm Type	Supplementary Information
7108	Major	Quality Of Service	Reference clock missing in startup
7108	Major	Quality Of Service	PPS reference missing
7108	Major	Quality Of Service	ToP reference missing
7108	Major	Quality Of Service	BTS Master Clock tuning failure
7650	Critical	Equipment	Reference clock missing in startup
7651	Major	Equipment	BTS reference clock missing

Node Synchronization are provided by two means:
1: Phase Sync (From GPS or SyncHubMaster)
2: Frequency Sync (From Timing over Packet Server via Transport Reference Source)

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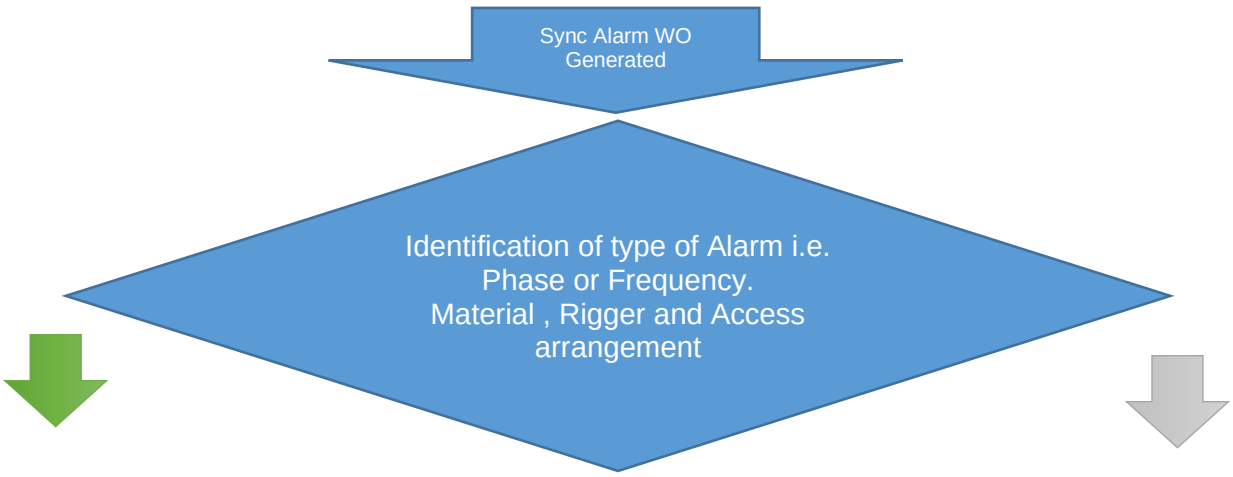
Flow Chart



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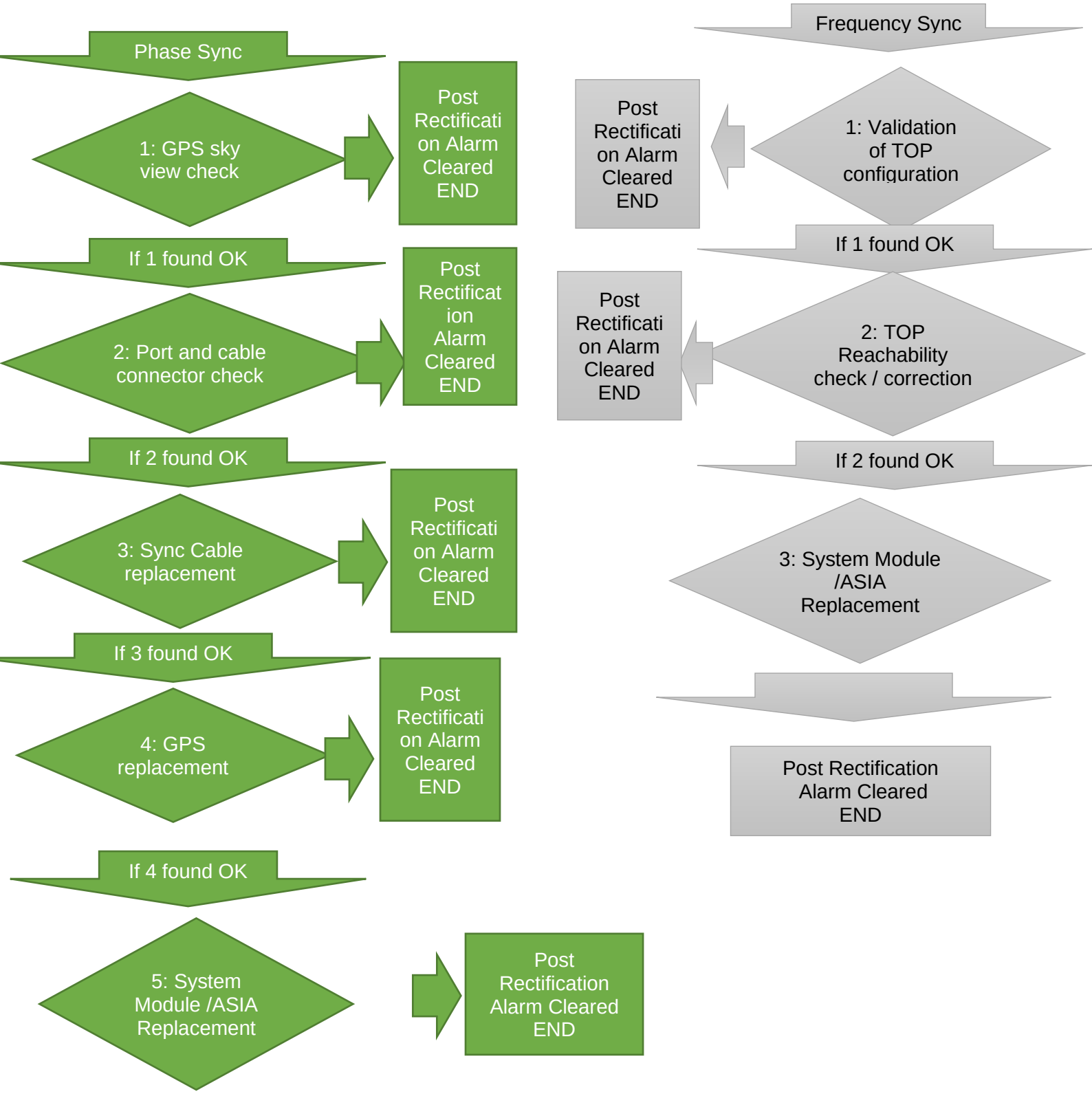

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Activity Details

Sync Alarm Information & Checking for corrective action

1. FME receive work order in WFM of Sync 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 and configuration with help of OMC by remote login of BTS .
4. FME discuss with ZTM and senior engineer about carrying required Spare and taking Rigger along with him & permitting him PTW.

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

Sync Alarm Correction

1: Phase Sync alarm correction

1. FME Validate the Position GPS for proper Sky view (180 Degrees no Obstacle View Required)
2. IF Step 1 found OK then FME checks Sync Cable Connectors between BTS “Sync In” port and GPS end
3. IF Step 2 found OK yet the alarm not cleared then FME change the Sync cable between BTS and GPS.
4. IF after completing Step 3 yet the alarm not cleared then FME replaces the GPS receiver
5. IF after completing Step 4 yet the alarm not cleared then FME replaces the BTS hardware i.e. FSMF of ABIA as per BTS type. (As Oscillator of BTS gone faulty).

2: Freqency Sync alarm correction

1. FME validate configuration of TOP server settings
2. If Step 1 found OK then FME check the reachability of configured ToP Server
3. If in Step 2 ToP server is not reachable then FME check the reachability of adjacent cluster ToP Server. If it is reachable and alarms cleared them FME informs to ZTM and get approval from planning team to change the ToP server IP.
4. If in Step 2 TOP server is reachable but yet BTS is not synced, then FME replaces the BTS hardware i.e. FSMF of ABIA as per BTS type. (As Oscillator of BTS gone faulty).

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Alarm issue Identification & Rectification

1. When FME reached at site, he put WO in progress state.
2. FME will login to the BTS & check Sync alarm cleared and the DAC value is near by 2048.