**3GPP TSG RAN Plenary Meeting #88e RP-20xxxx**

**29th of June - 03rd of July, 2020**

**Agenda item: 9.10.14**

**Source: CMCC (Moderator)**

**Title:**  **Email discussion on Rel-17 SON/MDT**

**Document for: Discussion**

# Introduction

This document is a summary of the following email discussion,

*Goal: Finalize scope of the Rel17 SON/MDT item, provide WID sheet for approval accordingly.*

*Input contributions covered: 823, 1222*

*Moderator: Hu Nan (CMCC)*

Based on RP-201222 (revision of RP-200768), RP-200823 and the reasons described in the flagged emails, the moderator would like to collect views on the proposed new objectives or refinements against the latest approved WID.

**Deadline**: 11:59h UTC 30th June

**Note**: if an objective does not receive any comments till the deadline, this objective is assumed agreeable to include in the WID.

# Discussion

**Objective**: RACH optimisation enhancement (Rel-16 leftovers)

**Description:** PRACH conflict detection in CU-DU split case, X2AP signalling of PRACH configurations of neighbour cells and some other detailed parameters are agreed to postpone to Rel-17

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| Companies | support to include it into objectives （yes/no） | Reason |
| Ericsson | Yes |  |
| Qualcomm | Yes |  |
| Nokia | Yes |  |
| ZTE | Yes, current general description is fine. | Although it was agreed in RAN3#108-e that these RACH aspects were postponed to Rel-17, the current description is more general to capture all left issues, e.g., the RACH optimization enhancement also includes whether to introduce Root Sequence Index BFR, UE associated RACH indication procedure from DU to CU. |
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**Objective**: MDT enhancement (Rel-16 leftovers)

**Description:** There are probably some enhancements on the MDT configuration over NG and Xn interface that are not finalized in Rel-16, e.g., beam related configuration, propagating Management Based MDT PLMN List always to the target NG-RAN during Xn handovers which is pending on SA3.

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| Companies | support to include it into objectives （yes/no） | Reason |
| Ericsson | Yes |  |
| Qualcomm | Yes |  |
| Nokia | Yes |  |
| ZTE | In general yes, the details are analyzed in Reason column. | Current description (except NR-Unlicensed) in RP-201222 captures agreement achieved in R16 WI. While for the two topics listed above:  **For beam\_related\_configuration :**  The agreement in RAN3#108-e was “Do not support beam related configurations in M1 measurement for immediate MDT in Rel-16”. Therefore there was no consensus to captured this into Rel-17 working scope.  **For user consent propagating**:  Further discussion is needed based on LS reply from SA3. |
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**Objective**: Load balancing enhancement (Rel-16 leftovers)

**Description:** including per-slicing load reporting, reporting of TNL load for fronthaul vs. backhaul, etc

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| Companies | support to include it into objectives （yes/no） | Reason |
| Ericsson |  | Per-slicing load reporting was discussed early. We need to see more motivation to include it in the objective. |
| Qualcomm | Yes |  |
| Nokia | Yes | load reporting per slice, reporting of TNL load for fronthaul vs. backhaul was discussed in Rel16 and marked as Rel16 leftovers.  We are fine to make it a bit more general as proposed by rapporteur, but should be “load balancing enhancement (including load reporting per slice, etc.)”. |
| ZTE | Yes | **For slicing load reporting:**  We support to add this into working scope based on operator requirements. UL&DL Slice CAC in Rel-16 NR\_SON could not support shared slice scenario.  **For TNL load:**  We support it with contribution driven. |
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**Objective (not flagged, companies seem fine with it)**: MRO for SN change failure (Rel-16 leftovers)

**Description:** MRO for SN change failure is agreed to postpone to Rel-17

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| Companies | support to include it into objectives （yes/no） | Reason |
| Ericsson | Yes |  |
| Qualcomm | Yes |  |
| Nokia | Yes |  |
| ZTE | Yes | It was agreed in RAN3#107-e and it is postponed to Rel-17 due to time limitation in R16. |
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**Objective (not flagged, companies seem fine with it)**: Inter-system load balancing

**Description:**Load balancing features for intra-system have been specified in Rel-16. Operators have strong requirements to support inter-system (4G and 5G) load balancing in Rel-17.

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| Companies | support to include it into objectives （yes/no） | Reason |
| Ericsson | Yes |  |
| Qualcomm | Yes |  |
| Nokia | Yes |  |
| ZTE | Yes | It was already approved. |
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**Objective**: NR-U enhancement

**Description:**It is mentioned in RP-200823 that SON/MDT may also apply to NR-U with some enhancements, e.g., MLB to take into account resource conditions in NR-U cells, to provide measurements and reports, e.g. RLF/RA reports, that help the management and configuration of NR-U, MRO enhanced to consider failure cases pertinent to NR-U

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| Companies | support to include it into objectives （yes/no） | Reason |
| Ericsson | Yes  Propose to clarify the objective from “NR-Unlicensed optimization” to “NR- Unlicensed related SON/MDT optimization”, to limit the scope. | We could reuse the work we did for the Rel 16 NR-U, and to include them for SON/MDT. The impact will not be big. |
| Qualcomm | Yes |  |
| Nokia | Yes |  |
| ZTE | No | No discussion either in R16 SI or WI phase, further clarification is needed. |
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**Objective**: NPN and IDC

**Description:**It is mentioned in the flagged email MDT coexistence with NPN and IDC need to be considered

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| Companies | support to include it into objectives （yes/no） | Reason |
| Ericsson |  | Our concern is that NPN might be a big scope, e.g. needs the SA-RAN coordination.  IDC would be fine to be included. |
| Qualcomm |  | Similar view as Ericsson regarding NPN. Okay to include in Rel-17 if scope is identified and defined.  IDC should be fine to include assuming similar handling as LTE. |
| Nokia | Yes | We propose to clarify a bit more on RAN2 scope with the following addition “*Enhancement of logged and immediate MDT (for MR-DC, coexistence with NPN and IDC) [RAN2, RAN3]*”since these three features have been addressed in Rel16 and concluded to be postponed. NPN/IDC aspects are important and the is limited to MDT, which should not become so big.  Further clarification:  - MDT for MR-DC, as the MDT applicability to EN-DC was the only deployment from Dual Connectivity deployments selected for specification, due to lack of time  - Coexistence of MDT functionality with NPN networks and IDC features, as SNPN networks presence affect checking of network id (which is now only PLMNid ) before RLFreport for secure reporting  - Coexistence of MDT functionality with IDC feature, as LTE baseline cover this relation and mark logged MDT data whenever they are polluted by IDC interferences. This coexistence was already present in some early stage of stage 3 running CR, but decided to be postponed. |
| ZTE |  | Regarding NPN, share the view with Ericsson and Qualcomm.  Regarding IDC, fine but it should limit the scope similar to LTE. |
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**WID refinement**: Successful HO report in SON and/or MDT part?

**Description:**It is mentioned in the flagged email that successful HO report is a SON feature and has been included in the SON part.

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| Companies | Views | Reason |
| Ericsson | Our understanding is the aspect is not covered in rel-16 due to the lack of time.  It is fine to be included in Rel 17. |  |
| Qualcomm | We see relatively limited benefit in including successful HO report in SON/MDT WI. Could be a candidate to omit to keep the overall scope under control. |  |
| Nokia | This is not covered in Rel16, and fine to be included in Rel17. |  |
| ZTE | We can keep the feature in the working scope with low priority, which is pending on RAN2 discussion. | It was discussed in R16 with the conclusion as “Pending RAN2 discussion, but RAN2 will not discuss this in Rel-16 ” |
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**Other proposals:**

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| Companies | Proposals |
| ZTE | Keep the R17 WI scope in a reasonable range. |
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# Conclusions