**3GPP TSG-RAN WG2 Meeting #116 electronic R2-2xxxxxx**

**Online, November 1-12, 2021**

Agenda Item: xx

Source: Session chair (CMCC)

Title: Report from SON/MDT session

Document for: Approval

Recording of voice or video at meetings is not used in 3GPP. This applies also to this e-Meeting. At this e-Meeting, no specific actions are taken to prevent the recording of web conferences. Companies that have concerns related to recordings, if any, may express those by email in the main meeting organizational thread [AT116][000]

**Organizational:**

1. LSs – contact companies should flag LSs that need presenting. Otherwise we will directly note them
2. Running CRs will be endorsed to be used as baseline and moved to email discussion. Further agreements will be captured on that baseline CR.
3. Only Email discussions and summary discussions will be treated during e-meetings (indicated clearly in the meeting notes)
4. All organization emails and notes will be shared over the following email discussion throughout the two meeting weeks:

* [AT116][800][SON/MDT] Organizational Hu

Scope:

* + - Share plans for the meetings and list of ongoing email discussions for the sessions related to SON/MDT
    - Share meetings notes and agreements for review and endorsement
    - Flag LSs

## 6.4 SON/MDT support for NR

(NR\_SON\_MDT-Core; leading WG: RAN3; REL-16; started: Jun 19; Completed June 20; WID: RP-191776).

Documents in this agenda item will be handled in a break out session

Tdoc Limitation: See tdoc limitation for Agenda Item 6

### 6.4.1 General and stage-2 corrections

Including incoming LSs, TS 37.320 corrections

R2-2109387 LS Reply on QoS Monitoring for URLLC (S5-211350; contact: Intel) SA5 LS in Rel-16 NR\_SON\_MDT-Core To:RAN3 Cc:SA2, RAN2

R2-2110634 Draft Reply LS on QoS Monitoring for URLLC Huawei LS out Rel-16 NR\_SON\_MDT-Core To:RAN3, SA5 Cc:SA2

R2-2110852 On reply LS to RAN3 on MDT Stage 2 and Stage 3 Alignment (reply LS to R3-207222) Ericsson discussion

R2-2111195 TS 37.320 title update Nokia, Nokia Shanghai Bell CR Rel-16 37.320 16.6.0 0112 - F NR\_SON\_MDT-Core

### 6.4.2 TS 38.314 corrections

### 6.4.3 RRC corrections

R2-2110002 Clarification on Location for SCG Failure Report in 38.331 CATT CR Rel-16 38.331 16.6.0 2820 - F NR\_SON\_MDT-Core Withdrawn

R2-2110003 Clarification on Location for SCG Failure Report in 36.331 CATT CR Rel-16 36.331 16.6.0 4728 - F NR\_SON\_MDT-Core Withdrawn

R2-2110004 Clarification on RA report without 2 step RA CATT CR Rel-16 38.331 16.6.0 2821 - F NR\_SON\_MDT-Core

R2-2110078 Correction on RA Resource Reporting Apple, Ericsson discussion Rel-16 NR\_SON\_MDT-Core

R2-2110079 Addition of missing information into RA-InformationCommon-r16 Apple, Ericsson CR Rel-16 38.331 16.6.0 2823 - F NR\_SON\_MDT-Core

R2-2110252 Corrections on the field descriptions of IEs for CEF-report and RLF-report request NEC CR Rel-16 38.331 16.6.0 2826 - F NR\_SON\_MDT-Core

R2-2110843 On neighbor cell measurements associated to interFreqTargetInfo Ericsson CR Rel-16 38.331 16.6.0 2853 - F NR\_SON\_MDT-Core

R2-2110851 On logging of neighbour PCI measurements based on interFreqTargetInfo Ericsson discussion

R2-2110853 On neighbour CSI-RS measurements in RLF report Ericsson CR Rel-16 38.331 16.6.0 2855 - F NR\_SON\_MDT-Core

R2-2110855 On User Consent related aspects Ericsson discussion

R2-2110858 On Logging MHI report upon transition from RRC\_CONNECTED to any cell selection state Ericsson CR Rel-16 38.331 16.6.0 2856 - F NR\_SON\_MDT-Core

R2-2110887 Corrections to previousPCellID and timeConnFailure handling Ericsson discussion NR\_SON\_MDT-Core

## 8.13 SON/MDT

(NR\_ENDC\_SON\_MDT\_enh-Core; leading WG: RAN3; REL-17; WID: RP-201281)

Time budget: 1 TU

Tdoc Limitation: 6 tdocs

Email max expectation: 6 threads

### 8.13.1 Organizational

R2-2109334 LS on Area scope configuration and Frequency band info in MDT configuration (R3-212824; contact: Huawei) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2

* **[AT115e][830][SON/MDT] Reply LS on Area scope configuration and Frequency band info in MDT configuration (Huawei)**

Based on R2-2109334 to figure out the acceptable version on Reply LS

Intended outcome: Approved LS

Deadline: 05:00 UTC, Friday November 5th

R2-2109347 MDT M6 calculation for split bearers in MR-DC (R3-214466; contact: Huawei) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2

* **[AT115e][831][SON/MDT] Reply LS on M6 calculation for split bearers in MR-DC (Huawei)**

Based on R2-2109347 to figure out the acceptable version on Reply LS

Intended outcome: Approved LS

Deadline: 05:00 UTC, Friday November 5th

R2-2109352 LS on the Beam measurement reports for the MDT measurements (R3-214519; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:SA5, RAN2

* **[AT115e][832][SON/MDT] Reply LS on Beam measurement reports (Ericsson)**

Based on R2-2109352 to figure out feasibility of the proposals mentioned in LS

Intended outcome: Approved LS

Deadline: 05:00 UTC, Friday November 5th

R2-2109335 LS on UP measurements for Successful Handover Report (R3-212935; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2

R2-2109352 LS on the Beam measurement reports for the MDT measurements (R3-214519; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:SA5, RAN2

R2-2109336 Reply LS on UE context keeping in the source cell (R3-212944; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2

R2-2109343 LS Reply on the details of logging forms reported by the gNB-CU-CP, gNB-CU-UP and gNB-DU under measurement pollution conditions (R3-214429; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:SA5, RAN2

R2-2109388 Reply LS on the details of logging forms reported by the gNB-CU-CP, gNB-CU-UP and gNB-DU under measurement pollution conditions (S5-213499; contact: Ericsson) SA5 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN3 Cc:RAN2

R2-2109391 Reply LS on Report Amount for M4, M5, M6, M7 measurements (S5-214523; contact: Nokia) SA5 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN3 Cc:RAN2

R2-2111226 Reply LS on the details of logging forms reported by the gNB-CU-CP, gNB-CU-UP and gNB-DU under measurement pollution conditions (S5-215493; contact: Ericsson) SA5 LS in Rel-17 e\_5GMDT To:RAN3 Cc:RAN2

R2-2110846 On beam information in immediate MDT measurement reports (reply LS R3-214519) Ericsson discussion

R2-2110884 LS Reply On user plane masurements for successful handover report Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

### 8.13.2 SON

#### 8.13.2.1 Handover related SON aspects

Including outcome of [Post115-e][899][SON/MDT] Handover related SON aspects (Ericsson)

R2-2110889 [Post115-e][899][SON/MDT] Handover related SON aspects (Ericsson) Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

Proposal 1 It is confirmed that as per TS38.300, the timeConnFailure included in the RLF-Report is used by the network to evaluate whether a legacy ordinary HO was a “Too Early HO” triggered by the source cell or a “Too late HO”.

Proposal 2 RAN2 to discuss the implications of Option 2:

a. the legacy usage of timeConnFailure as in Proposal 1 is affected, because the interpretation of timeConnFailure would become ambiguous from the perspective of cell A, and hence erroneous HO failure classifications may occur (8/16).

b. No issues (7/16)

Proposal 3 RAN2 to discussion the implications of Option 1:

a. It will not be possible to determine the time elapsed between the CHO configuration in cell B and the RLF in cell B (8/16)

b. No issues (8/16). To discuss if “Time C” can be used to solve the issue above, i.e. time C is started at CHO configuration in cell B and it can be either stopped at HO execution (as already agreed) or at RLF in cell B.

Proposal 4 RAN2 to further discuss which option to support for Time D among the following:

a. Option 1: The “Time D” is represented via the timeConnFailure, which is supposed to start at CHO execution and stop when the HOF/RLF occurs.

b. Option 2: The timeConnFailure is supposed to start at reception of the CHO configuration and stop when the HOF/RLF occurs. The “Time D” amounts to the difference between timeConnFailure and “Time C”.

Proposal 5 RAN2 to further discuss the need to include in the RLF-Report an indicator indicating whether the last executed HO before the RLF in the target cell was a CHO HO.

Proposal 6 RAN2 to further discuss the need to include in the RLF-Report an indicator indicating that the last executed HO before the RLF in the target cell was a DAPS HO.

Proposal 7 The value of the T304 threshold to be provided in the SHR configuration is configured by the target cell.

Proposal 8 RAN2 to discuss when the RA-InformationCommon should be included in the SHR:

a. Only in case the SHR is generated due to T304 above the threshold (8/16)

b. It should never be included (8/16)

Proposal 9 RAN2 believes that it is not a problem if both the SHR and RLF-Report are generated after the same HO, and it is not a problem if the network fetches them separately.

Proposal 10 The SHR does not include information on whether the UE is handed-over to another cell early after the successful HO.

Proposal 11 Related to the UP measurements to be included in the SHR, the UE should include at least the following:

a. User plane interruption at handover, as evaluated at PDPC layer without considering duplicates

Proposal 12 The user plane interruption at handover, as evaluated at PDPC layer without considering duplicates is defined as follows: “Time from the last packet received from the source and the first non-duplicate packet received from the target, measured at the time of reception of the first non-duplicate packet from the target cell.”

Proposal 13 RAN2 to discuss the following issues related to the SHR:

a. Support of inter-RAT SHR reporting

b. Including the time between the source RLF and DAPS HO completion

c. How to discard the stored SHR at T304 expiry

d. How to indicate SHR availability in case of RRCReconfigurationComplete message has already been generated

Proposal 14 RAN2 to discuss the need for the following SHR triggering conditions:

a. T310/T312 in target cell is started after a short time of successful HO

b. The number of preamble attempt in target cell is greater than one threshold

c. If the UP interruption time is above a certain threshold

d. Configured CFRA RACH resource not used and the UE is forced to use the CBRA for HO.

R2-2109562 Discussion on SHR enhancements vivo discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2109563 Indication on the availability of rlf-Report via failureInformation for DAPS HO failure vivo discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110005 Further Discussion on CHO and DAPS Aspects CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110041 UP measurements of HO interruption time Apple discussion NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110097 Further consideration of SON of HO related aspects OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110104 Further consideration on successful handover report OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110256 Open issues on SHR NEC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110298 SON Enhancements for CHO Lenovo, Motorola Mobility discussion Rel-17

R2-2110299 SON Enhancements for DAPS Handover Lenovo, Motorola Mobility discussion Rel-17

R2-2110300 SON Enhancements for SHR Lenovo, Motorola Mobility discussion Rel-17

R2-2110529 Remaining issues on SON Enhancement for CHO CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110530 Remaining issues on SON Enhancement for DAPS CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110531 Further Discussion on Successful Handover Report CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110635 Discussion on handover related SON aspects Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110717 Further clarification on SON MRO Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110735 Remaining issues on HO related SON aspects ZTE Corporation, Sanechips discussion Rel-17

R2-2110882 Handover-related SON aspects Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110920 HO related SON changes QUALCOMM Technologies INC. discussion Rel-17

R2-2110936 Discussion on CHO related RLF-Report LG Electronics discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110988 SON Enhancements for CHO and DAPS HO Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110992 SON Enhancements for Successful HO Report Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

R2-2111016 Discussion on HO type indicator for CHO and DAPS SHARP Corporation discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2111024 Discussion on contents of successful HO report SHARP Corporation discussion NR\_ENDC\_SON\_MDT\_enh-Core

#### 8.13.2.2 2-step RA related SON aspects

Including outcome of [Post115-e][898][SON/MDT] 2-step RA related SON aspects (CATT)

R2-2110006 Report of [Post115-e][898][SON/MDT] 2-step RA related SON aspects CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

Proposal 1(potential easy agreement): Including the field msgA-Transmax in RA-InformationCommon IE to indicate RA type switching point in the 2-step RA report.

Proposal 2 (potential easy agreement): Preamble group optimization for RACH report is not introduced in Rel-17.

Proposal 3a (for further discussion): Introduce MSGA PUSCH resource related information in 2-step RA report and the details within the following information:

the payload size transmitted in MSGA for a 2-step RACH attempt

the MCS index

the number of PRB per PO of the PUSCH resource

the combination of start symbol and length and PUSCH mapping type

offset of lowest PUSCH occasion in frequency domain with respect to PRB 0

the number of msgA PUSCH occasions FDMed in one time instance

whether MSGA PUSCH was transmitted or not during this RA attempt

Proposal 4 (for further discussion): FFS the signalling structure and procedure description of PRACH resource related information when 2-step RA and 4-step RA share the same ROs.

R2-2110007 TS38.331 Draft CR for 2-step RA related SON aspects CATT draftCR Rel-17 38.331 16.6.0 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110008 Discussion on Signalling Structure of 2-step RA Report CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110532 Remaining issues on SON Enhancement for 2-step RA CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110636 Discussion on 2 step RA related SON aspects Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110736 2step RA related enhancements ZTE Corporation, Sanechips discussion Rel-17

R2-2110837 2-Step RA information for SON purposes Ericsson discussion

R2-2110994 SON Enhancements for 2SRA Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

#### 8.13.2.3 Other WID related SON features

Including outcome of [Post115-e][897][SON/MDT] 2 Modeling aspects related to information required by SN/SCG (Huawei)

R2-2110637 [Post115-e][897][SONMDT] Modeling aspects related to information required by SNSCG (Huawei) Huawei discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

1) CGI of the Source PSCell: the source PSCell of the last SN change. The source PSCell could be E-UTRA cell or NR cell.

2) CGI of the Failed PSCell: the PSCell in which SCG failure is detected or the target PSCell of the failed PScell change. The Failed PSCell could be E-UTRA cell or NR cell.

3) timeSCGFailure: the time elapsed since the last PSCell change initialization until SCG failure.

4) connectionFailureType: radio link failure or SN change failure.

5) random-access related information set by the PSCell

Summary proposal 1: Put RA information (the 5th parameter) in the existing SCG failure message when some conditions are met. FFS for conditions e.g. the UE would not include RA information to the SCG failure message in case of too late handover failure, and the UE only needs to include RA information in case of RA problem/BFR resulted RLF and HOF.

One company has deep concerns on the impact of the first part of proposal-1 (overhead introduced by this field in a mandatory message).

Summary proposal 2: RA-InformationCommon-r16 is used as a baseline to indicate random-access related information set by the PSCell.

Summary proposal 3: For the 1st, 2nd, 3rd and 4th parameter, it is proposed to continue discussing whether they can be implicitly indicated by existing Ies in SCG failure information or new parameters are needed (based on observations for question 2a).

* **[AT115e][820][SON/MDT] Information required by SNSCG (Huawei)**

Focus on summary proposal 1, 2 and 3 in R2-2110637

(1) For summary proposal 1, progress on the conditions which will trigger to log RA information.

(2) progress on summary proposal 3.

(3) just final check and confirm to agree proposal 2.

Intended outcome: Agreements

Deadline: 05:00 UTC, Friday November 5th

R2-2110009 Further Analysis on UE RACH Report for SN CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110010 Further Analysis on PSCell MHI Enhancement CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110301 SON Enhancement for NR-U Lenovo, Motorola Mobility discussion Rel-17

R2-2110638 Discussion on other SON aspects Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110716 Discussion on other SON aspects Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110719 UE grouping impact on MRO Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110737 On other WID related issues ZTE Corporation, Sanechips discussion Rel-17

R2-2110854 On Other WID related SON features Ericsson discussion

R2-2110921 NR-U Related Enhancements QUALCOMM Technologies INC. discussion Rel-17

R2-2110995 SON Enhancements: Others Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

### 8.13.3 MDT

#### 8.13.3.1 Immediate MDT enhancements

Including outcome of [Post115-e][895][SON/MDT] IMM MDT (ZTE)

R2-2110738 Report of [Post115-e][895][SON/MDT] IMM MDT ZTE Corporation, Sanechips report Rel-17

Proposal 1: For non-duplication case, a single D1 is calculated.

Proposal 2: For duplication case, further discuss which of the following options can be used:

Option 1: Two D1 is calculated separately for MN and SN

Option 2: Single D1 is calculated

Proposal 3: It needs further discussion which option is used for configuring D1 in case of split bearer:

Option 1: MN and SN can separately configure D1 to UE, and UE reports D1 to corresponding node where configuration is received;

Option 2: Only one node (e.g., terminated node ) can configures D1 to UE, and UE reports D1 to corresponding node where configuration is received;

**Proposal 4: At least for OAM observability, MN and SN can calculate M5 measurement in the DU respectively when split bearer is used.**

**Proposal 5: RAN2 further discuss enhancements on M5 measurement in split bearer based on following alternatives:**

**Alt1: the CU or MCE can get the throughput based on the following formula:**

**Alt2: UE calculates and report its throughput to NW;**

**Alt3: Compute the overall throughput at the CU-UP based on following information:**

**New indications from the DU to the CU to include the measurements mentioned in 5b, 5c and 5d.**

**Potential agreeable Proposal (with majority support):**

**Proposal 6: MN and SN can calculate M7 measurement in the DU respectively when split bearer is used.**

**Proposal for further discussion:**

**Proposal 7: RAN2 study whether enhancements on M7 measurement is needed when split bearer is used.**

**Potential agreeable Proposal(with majority support) :**

**Proposal 8: From RAN2’s perspective, indication of duplication status is beneficial to be included for M5/M7 measurement in split bearer.**

**Proposal with full consensus:**

**Proposal 9: The same as LTE, reporting of immediate MDT results won’t be impact by IDC.**

**Proposal 10: No enhancement is needed in RAN2 signalling to support IDC tagging in immediate MDT results.**

R2-2109564 Discussions on RAN3 LS on immediate MDT vivo discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110639 Discussion on M6 calculation for split bearers in MR-DC (RAN3 LS R2-2109347) Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110640 Discussion on immediate MDT enhancements Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110718 M5 Measurement for DC Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110739 Consideration on immediate MDT enhancements ZTE Corporation, Sanechips discussion Rel-17

R2-2110848 On Immediate MDT Enhancements Ericsson discussion

#### 8.13.3.2 Logged MDT enhancements

Including outcome of [Post115-e][896][SON/MDT] Logged MDT (Nokia)

Also need to trear issue of  Signalling based MDT overriding avoidance

R2-2110714 Report on [Post115-e][896][SON/MDT] Logged MDT (Nokia) Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

Proposal 1: Extended LoggedMeasurementConfiguration with AreaConfig and/or InterFreqTargetInfo, implies the Logged MDT reports are provided according to legacy MDT performance measurements.

Proposal 2: LoggedMeasurementConfiguration is extended with a flag to indicate if an early measurement/idle mode configuration has relevance for logged measurement purposes.

**Proposal 4**: Frequency-specific and RAT-specific coverage hole indication in logged MDT are not pursued in Rel-17.

**Proposal 5**: RAN2 to decide if UL coverage estimate based on “Max UE power is higher than P\_max” or “P\_compensation in S-criteria is not equal to zero” is a valid option to solve the problem about UL/DL coverage imbalance.

**Proposal 6**: FFS which option is selected to solve the problem about UL/DL coverage imbalance: “DL signal state during UL outage” or multiple CEF reports.

R2-2110011 Discussion on Logged MDT Enhancement CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110042 Remaining issues for logged MDT Apple discussion NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110098 Enhancements for logged MDT regarding RAT-specific coverage hole OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110533 Further consideration on UL-DL coverage mismatch CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110641 Discussion on logged MDT enhancements Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2110715 Logged MDT and other enhancements Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core R2-2107508

R2-2110740 CEF report enhancements ZTE Corporation, Sanechips discussion Rel-17

R2-2110850 On logged MDT related enhancements Ericsson discussion

R2-2110923 Logged measurement Enhancements QUALCOMM Technologies INC. discussion Rel-17

R2-2110999 SON Enhancements for SI Request Optimization Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

R2-2111168 Discussion on Logged MDT issues Samsung Electronics Co., Ltd discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

### 8.13.4 L2 Measurements

R2-2111196 Introduction of enhanced PRB Usage for MIMO China Unicom discussion Rel-17

R2-2110959 Introducion of PRB usage based on statistical MIMO layer CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core R2-2110242

R2-2110642 Discussion on L2M Huawei, CMCC, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core R2-2108567

R2-2110242 Introducion of PRB usage based on statistical MIMO layer CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core Revised

R2-2110741 L2 measurements enhancements ZTE Corporation, Sanechips discussion Rel-17

R2-2110849 On layer-2 measurements Ericsson discussion

R2-2111202 38.314 CR to introduce the enhanced PRB Usage for MIMO China Unicom CR Rel-17 38.314 16.4.0 0018 - B NR\_ENDC\_SON\_MDT\_enh-Core