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| 10. SON/MDT Support for NR WI (RAN3-led) WID [NR\_SON\_MDT]: [RP-191594](http://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_84/Docs/RP-191594.zip) (target: RAN #88-e) [TU: 1 (1)]  Capture the MDT related procedures in split RAN architecture into TS38.401.  1. Add Management Based MDT PLMN List to the F1-UE CONTEXT SETUP REQUEST message.  2. Transmit measurement configuration M2, M5, M6, M7 (DL) to DU from CU-CP.  1. Add Management Based MDT PLMN List to the E1-BEARER CONTEXT SETUP REQUEST message.  2. Support to transmit measurement configuration M4, M6 and M7(UL) to the CU-UP.  1. Add Management Based MDT PLMN List to the Xn-HANDOVER REQUEST message and RETRIEVE UE CONTEXT RESPONSE message.  2. Trace Activation  a. Add MDT Configuration IE into Trace Activation IE. The Trace Activation IE is already defined in the HANDOVER REQUEST message and RETRIEVE UE CONTEXT RESPONSE message.  b. Support M1, M2, M4, M5, M6, M7, M8, M9  1. MDT configuration includes a sequence structure: NR-configuration and E-UTRA configuration, both are optional.  2. Add M1, M2, M4, M5, M6, M7, M8, M9 to MDT configuration.  3. Remove Management based MDT Allowed IE from the NGAP BLCR (added in last meeting as FFS) | | |
| 10.1. General *Time plan, skeletons, BLs*  *BL CRs endorsed; all proposals should be in the form of TPs toward the appropriate BL CR(s)* | | |
| [R3-201528](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201528.zip) | Addition of SON feature (Huawei) | draftCRr, TS 36.300 v16.1.0, Rel-16, Cat. B |
| [R3-201555](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201555.zip) | BLCR to 38.420: Addition of MDT feature (CMCC) | CR0018r1, TS 38.420 v15.2.0, Rel-16, Cat. B |
| [R3-201556](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201556.zip) | BLCR to 38.420: Addition of SON feature (CMCC) | CR0019r1, TS 38.420 v15.2.0, Rel-16, Cat. B |
| [R3-201557](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201557.zip) | BLCR to 38.470: Addition of SON feature (CMCC) | CR0064r1, TS 38.470 v16.1.0, Rel-16, Cat. B |
| [R3-201558](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201558.zip) | BLCR to 38.460: Addition of SON feature (CMCC) | CR0031r1, TS 38.460 v16.0.0, Rel-16, Cat. B |
| [R3-201566](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201566.zip) | MDT support for EN-DC (Huawei) | CR1747r2, TS 36.413 v16.1.0, Rel-16, Cat. B |
| [R3-201569](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201569.zip) | Addition of RACH Optimization Feature (CMCC, Huawei) | CR0116r2, TS 38.401 v16.1.0, Rel-16, Cat. B |
| [R3-201574](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201574.zip) | MDT support for EN-DC (Huawei, SAMSUNG) | CR1440r3, TS 36.423 v16.1.0, Rel-16, Cat. B |
| [R3-201608](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201608.zip) | Addition of SON features (Huawei) | CR1710r8, TS 36.413 v16.1.0, Rel-16, Cat. B |
| [R3-201609](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201609.zip) | Addition of SON feature (CATT) | CR1373r9, TS 36.423 v16.1.0, Rel-16, Cat. B |
| [R3-201610](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201610.zip) | Addition of SON features (CMCC, Huawei) | draftCRr, TS 38.300 v16.1.0, Rel-16, Cat. B |
| [R3-201611](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201611.zip) | Addition of MDT features (Samsung) | CR0099r4, TS 38.401 v16.1.0, Rel-16, Cat. B |
| [R3-201612](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201612.zip) | Addition of SON features (Huawei) | CR0237r7, TS 38.413 v16.1.0, Rel-16, Cat. B |
| [R3-201613](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201613.zip) | Addition of MDT feature (Huawei) | CR0280r5, TS 38.413 v16.1.0, Rel-16, Cat. B |
| [R3-201614](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201614.zip) | Addition of SON features (Samsung) | CR0221r9, TS 38.423 v16.1.0, Rel-16, Cat. B |
| [R3-201615](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201615.zip) | MDT Configuration support for XnAP (Ericsson) | CR0291r7, TS 38.423 v16.1.0, Rel-16, Cat. B |
| [R3-201616](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201616.zip) | Addition of SON features (Ericsson) | CR0142r9, TS 38.463 v16.1.0, Rel-16, Cat. B |
| [R3-201617](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201617.zip) | Addition of MDT features (ZTE) | CR0477r3, TS 38.463 v16.1.0, Rel-16, Cat. B |
| [R3-201618](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201618.zip) | Addition of SON features (Huawei) | CR0441r9, TS 38.473 v16.1.0, Rel-16, Cat. B |
| [R3-201619](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201619.zip) | Addition of MDT features (Samsung) | CR0492r4, TS 38.473 v16.1.0, Rel-16, Cat. B |
| [R3-202436](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202436.zip) | Updated work plan for SON and MDT WI (China Mobile International Ltd) | Work Plan |
| [R3-201520](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201520.zip) | LS on the status update of the SON support for NR works (3GPP SA5, Intel) | LS in  Move to 10.1 |
| **CB: # 1000\_Email\_SON-MDT\_BLs**  **- endorse work plan**  **- Endorse all BL CRs check details, revise if needed**  **- expect discussions only to ensure correctness of BL CRs, no new proposals (in this discussion)**  (CMCC - moderator)  Summary of offline discussion [R3-202461](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202461.zip) noted  R3-201528, **endorsed as BL CR**  R3-201555, **endorsed as BL CR**  R3-201556, **endorsed as BL CR**  R3-201557, **endorsed as BL CR**  R3-201558, **endorsed as BL CR**  R3-201566, **endorsed as BL CR**  R3-201569, **endorsed as BL CR**  R3-201574, **endorsed as BL CR**  R3-201608, **endorsed as BL CR**  R3-201609, **endorsed as BL CR**  R3-201610, **endorsed as BL CR**  R3-201611, **endorsed as BL CR**  R3-201612, **endorsed as BL CR**  R3-201613, **endorsed as BL CR**  R3-201614, **endorsed as BL CR**  R3-201615, **endorsed as BL CR**  R3-201616, **endorsed as BL CR**  R3-201617, **endorsed as BL CR**  R3-201618, **endorsed as BL CR**  R3-201619, **endorsed as BL CR**  E///: some comments have not been addressed  CMCC: comments on X2 BL CR for MDT received from E///, not acknowledged by Nokia  These are the same BL CRs as endorsed previously; corrections will be taken as TP  Reply LS to SA5 in [R3-202627](Docs\R3-202627.zip)  Fix the typo in “would thanks”  Final in [R3-202630](Docs\R3-202630.zip)  **Agreed unseen**  **Add the missing *Registration Request* IE in tabular (9.2.1.X1) at next update for SON E1 BLCR.** | | |
| 10.2. Signaling Support for SON *In cooperation with RAN2* | | |
| 10.2.1. Mobility Robustness Optimization **QUOTA: 7**  *Both intra- and inter-system*  MRO mechanism shall support Rel-15 UEs  Introduce failure indication message and HO report in Xn (message names can be revised offline)  mobility information of source gNB should be included in HANDOVER REQUEST message  UL and DL RAN configuration transfer mechanism is used to exchange MRO information between LTE and NR (i.e. in NG and S1)  *Unnecessary HO to another system and ping-pong to be discussed in the upcoming meetings*  *UE RLF report from CU to DU to be continued…* | | |
| 10.2.1.1. Intra-System and Inter-System Connection Failure Intra-system:  - In failure indication over Ng, include the RLF report  - HO report procedure over NG and S1 shall be supported  - For the connection failure due to intra-system mobility, add the description about how to use the failure indication message and HO report in case of RRC re-establishment and RLF report  - For the connection failure due to intra-system mobility, add the description about retrieval of information needed for problem analysis. The description of LTE is the baseline | | |
| [R3-201515](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201515.zip) | Reply LS on Information Needed for MRO in UE RLF Report (3GPP RAN2, CATT) | LS in  Move to 10.2.1.1 |
| [R3-201735](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201735.zip) | (TP for SON BL CR for TS 38.413): Intra-System and Inter-System Connection Failure (Huawei) | other |
| [R3-201736](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201736.zip) | (TP for SON BL CR for TS 38.423): Intra-System and Inter-System Connection Failure (Huawei) | other |
| [R3-201737](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201737.zip) | (TP for SON BL CR for TS 38.300): Intra-System and Inter-System Connection Failure (Huawei) | other |
| [R3-201929](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201929.zip) | Discussion on support of intra-system and inter-system MRO (CATT,CMCC) | discussion |
| [R3-201930](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201930.zip) | [Draft]LS to RAN2 on support of MRO (CATT) | LS out |
| [R3-201931](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201931.zip) | Discussion on tranfer of RAReport and ConnEstFailReport (CATT) | discussion |
| [R3-201932](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201932.zip) | (TP on SON BLCR for 38.413)Addition of RAReport and ConnEstFailReport transfer (CATT) | other |
| [R3-201933](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201933.zip) | (TP on SON BLCR for 38.423)Addition of RAReport and ConnEstFailReport transfer (CATT) | other |
| [R3-202069](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202069.zip) | (TP for SON BL CR for TS 38.423) Intra-System and Inter-System Connection Failure for MRO (Samsung) | other |
| [R3-202070](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202070.zip) | (TP for SON BL CR for TS 38.413) Intra-System and Inter-System Connection Failure for MRO (Samsung) | other |
| [R3-202071](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202071.zip) | (TP for SON BL CR for TS 38.300) Intra-System and Inter-System Connection Failure for MRO (Samsung) | other |
| [R3-202072](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202072.zip) | LS on information needed for MRO in UE RLF Report (Samsung) | LS out |
| [R3-202391](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202391.zip) | TP for [NR\_SON\_MDT] BL CR for TS 38.300) Introduction of RLF report (ZTE) | other |
| [R3-202392](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202392.zip) | Left open issue for intra system and inter system MRO (ZTE) | discussion |
| [R3-202393](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202393.zip) | Re-connected Cell ID for intra system inter RAT MRO (ZTE) | discussion |
| [R3-202435](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202435.zip) | TP to SON BLCR 38.300 on MRO corrections (China Mobile International Ltd) | other |
| **CB: # 1001\_Email\_SON-MDT\_ConnFail**  **- This email discussion is expected to produce at least TPs for 38.300, 38.413, and 38.423**  **- Furthermore, this email discussion may produce an LS to RAN2**  **- TP for 38.300**  **- Merge what is agreeable from 1737, 2071, 2391, and 2435**  **- Come up with a concise description of the inter-system RLF report**  **- The email discussion rapporteur is to provide the first draft based on the TPs listed above, which is to be revised during the email discussion**  **- LS**  **- Merge what is agreeable from 1735 (Annex 2), 1930, 2072**  **- Discuss what information is needed in RLF report**  **- The email discussion rapporteur is free to structure the discussion as he/she sees fit, the following is only a suggestion: to list all the information suggested in all the documents above as a separate “issue” and solicit companies’ view on each**  **- TP for 38.413**  **- Merge what is agreeable from 1735, 1932, 2070, and 2393**  **- Discuss Failure Indication and Inter-system SON Information Report**  **- Discuss FFS in the current BL CR mentioned in the contributions referenced**  **- The email discussion rapporteur is free to suggest other issues for discussion, based on the contributions referenced**  **- Come up with an agreeable TP**  **- The email discussion rapporteur is to provide the first draft based on the TPs listed above, which is to be revised during the email discussion**  **- TP for 38.423**  **- Merge from 1736, 1933, and 2069**  **- Discuss Failure Indication, RLF Report and HO Report**  **- The email discussion rapporteur is free to suggest other issues for discussion, based on the contributions referenced**  **- Come up with an agreeable TP**  **- The email discussion rapporteur is to provide the first draft based on the TPs listed above, which is to be revised during the email discussion**  (SS - moderator)  Summary of offline discussion [R3-202462](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202462.zip) revised in [R3-202632](Docs\R3-202632.zip)  **Send LS to RAN2: Information needed in RLF report from UE as follows**  **-The CGI of the cell that served the UE at the last handover initialization in NR UE RLF Report is either NR CGI or E-UTRA CGI. E-UTRA CGI should be included**  **-The CGI of the cell that served the UE at the last handover initialization in LTE UE RLF Report is either NR CGI or E-UTRA CGI. NR CGI should be included.**  **-The CGI of the last cell that served the UE (in case of RLF) or the target of the handover (in case of handover failure) in NR UE RLF Report is either NR CGI or E-UTRA CGI. E-UTRA CGI should be included.**  **-The CGI of the last cell that served the UE (in case of RLF) or the target of the handover (in case of handover failure) in LTE UE RLF Report is either NR CGI or E-UTRA CGI. NR CGI should be included.**  Wording to be checked offline  Nokia: OK to send LS; about not mentioning IE names – we better make it clear  SS: OK to discuss wording  ZTE: Rel-16?  SS: yes  **RAN3 BLCR related:**  **LTE RLF Report Container refers to RLF-Report-r9 IE in TS36.331 in both XnAP and NGAP.**  **NR RLF Report Container refers to nr-RLF-Report-r16 IE in TS38.331 in both XnAP and NGAP.**  **Define the presence of *Target cell CGI* IE in Handover Report message as Mandatory.**  Note: One company propose to use conditional “ifUERLFReportContainerAbsentAndInter-RATho”. For simplicity and in line with the definition of Source cell CGI, the rapporteur propose to check whether this proposal could be quickly agreed.  CATT: we proposed to have “conditional” presence  SS: we discussed a similar issue, sometimes it is needed, sometimes not; for simplicity we defined it as mandatory  Issues related to the LS to RAN2:  Proposal 1: failedPCellId-EUTRA should be PCell in which RLF is detected or the source PCell of the failed handover.  E///: inter-system HO?  SS: intra-system inter-RAT  Nokia: the source cell should to the analysis  E///: in the past we agreed that it is the target  HW: for re-establishment it is clear that it is PCell (for stage-3)  **To be continued offline** | | |
| 10.2.1.2. Inter-System Ping-Pong and Unnecessary Handover Unnecessary HO from NR to E-UTRAN is supported, E-UTRAN to NG-RAN is not supported in Rel16  NG-RAN to E-UTRAN ping-pong (and vice versa) shall be supported, including ng-eNB | | |
| [R3-201738](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201738.zip) | (TP for SON BL CR for TS 38.300): Inter-System Ping-Pong and Unnecessary Handover (Huawei) | other |
| [R3-201739](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201739.zip) | (TP for SON BL CR for TS 38.423): Inter-System Ping-Pong and Unnecessary Handover (Huawei) | other |
| [R3-201934](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201934.zip) | (TP for SON BL CR for TS 38.413)Correction on inter-system unnecessary HO (CATT) | other |
| **CB: # 1002\_Email\_SON-MDT\_PingPong**  **- This email discussion is expected to produce TPs for 38.300, 38.413, and 38.423**  **- Discuss corrections proposed in 1738, 1739, and 1934**  **- Come up with agreeable TPs**  **- Start the discussion based on the TPs referenced above as they are**  (CATT - moderator)  Summary of offline discussion [R3-202463](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202463.zip)  **date the definition of quantityConfigNR-R15 IE from Integer to octet string and remove the definition of maxNrofQuantityConfig.R3-20**  [R3-201934](Docs\R3-201934.zip) rev in [R3-202631](Docs\R3-202631.zip)  With the change implementing the agreement above it is **agreed unseen**  HW: the reference is still needed  CATT: it is not needed anymore  HW: only change the type, keep the semantics  Rapporteur of 38.300 BLCR fix the editorial change raised in R3-201738  Rapporteur of 38.423 BLCR fix the editorial change raised in R3-201739  HW: suggest to mark in red, the status should be merged  Nokia: can we just agree?  E///: we normally don’t submit editorial CRs  NEC: we should note these  [R3-201738](Docs\R3-201738.zip) is noted  [R3-201739](Docs\R3-201739.zip) is noted | | |
| 10.2.1.3. SN Change Failure *Moved to Rel-17* | | |
| 10.2.1.4. CU-DU Aspects for MRO gNB-CU should forward the UE RLF report to the gNB-DU using a dedicated procedure at least in case of the RLF caused by random access problem  *further discuss whether the UE RLF report is provided to the gNB-DU in case of beam failure recovery failure.*  *further discuss whether the new procedure needs to be defined to provide information about the detection of RLF events and the root cause of such events from the gNB-DU to the gNB-CU. To be continued...* | | |
| [R3-201791](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201791.zip) | Remaining issues in CU-DU MRO (Qualcomm Incorporated) | discussion |
| [R3-202121](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202121.zip) | Signalling of RLF information from gNB-CU to gNB-DU (Ericsson) | discussion |
| [R3-202122](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202122.zip) | Signalling of RLF information from gNB-DU to gNB-CU (Ericsson) | discussion |
| [R3-202123](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202123.zip) | Addition of SON features TP 38.470 (Ericsson) | other |
| [R3-202124](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202124.zip) | Signalling of RLF Report to gNB-DU TP 38.473 (Ericsson) | other |
| [R3-202125](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202125.zip) | Handling of RLF in the gNB-DU TP 38.473 (Ericsson) | other |
| [R3-202126](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202126.zip) | Addition of SON features CR 38.401 (Ericsson) | CR0120r, TS 38.401 v16.1.0, Rel-16, Cat. B |
| [R3-202317](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202317.zip) | Open issues for CU-DU MRO (LG Electronics) | discussion |
| [R3-202318](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202318.zip) | (TP for NR\_SON\_MDT BL CR for TS 38.473): Open issues for CU-DU MRO (LG Electronics) | other |
| [R3-202394](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202394.zip) | Left issue for CU-DU MRO (ZTE) | discussion |
| [R3-202395](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202395.zip) | TP for [NR\_SON\_MDT] BL CR for TS 38.473) CU-DU MRO (ZTE) | other |
| **CB: # 1003\_Email\_SON-MDT\_CUDUMRO**  **- Start the discussion from high level principles as raised in 1791, 2121, 2122, 2317, and 2394**  **- Remember the agreements from the previous meeting**  **- Discuss what information has to be provided from gNB-CU to gNB-DU and from gNB-DU to gNB-CU – list these as issues in the email discussion summary and solicit comments from companies**  **- Attempt to agree the principles as mentioned above,** **once there is an agreement or at least clear majority view – proceed to discuss the TPs**  **- Attempt to come up with agreeable TP at least for 38.473 based on 2124, 2125, 2318, and 2395**  **- Furthermore, you may also attempt to come up with agreeable TPs for 38.470 and 38.401 (second priority, stage-3 comes first), based on 2123 and 2126**  **- This email discussion is expected to produce agreements (to be captured in the meeting minutes) on the high level principles, stage-3 TP, and possibly stage-2 TP – in that order**  **- Note – this email discussion may benefit from some “online” time, preferably after the “first phase” of collecting companies’ views on the high-level principles**  (LG - moderator)  Summary of offline discussion [R3-202464](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202464.zip) rev in [R3-202633](Docs\R3-202633.zip)  **The UE RLF report should be provided to the gNB-DU at least in cases of RACH related problems and beam failure recovery failure.**  E///: it is generally fine; there would be more conditions in the future. Whenever the CU has RLF report it pushes it to DU, instead of going over all the conditions  Nokia: the current wording does not preclude from sending in other cases  E///: we did not mean to mandate sending the report; we just don’t want to list all the conditions  ZTE: agree with Nokia, we should follow the agreement from the last meeting  SS: Agree with Nokia and ZTE  Issue 1: In order for the gNB-CU to send the UE RLF report to the gNB-DU, should new procedure be defined or the existing procedure be used?  New dedicated procedure to be defined for the gNB-CU sends the UE RLF report to the gNB-DU.  Proposal 3: A procedure for both UE-associated and non UE-associated RLF report signaling should be defined.  Nokia: the CU-DU ready procedure can also be used  HW: agree with Nokia; what is the benefit of UE-associated procedure? The identity is already there  E///: we meant a new dedicated procedure; if there is a context, we should use the existing AP ID  HW: is it too-early?  E///: yes  Nokia: for re-establishment there is signaling already  E///: that is not UE-associated with respect to the old UE  SS: even for re-establishment we need non-UE associated  Issue 2: Does the new procedure need to be defined to provide information about the detection of RLF events and the root cause of such events from the gNB-DU to the gNB-CU?  Proposal 4: New procedure is unnecessary to be defined to provide information about the detection of RLF events and the root cause of such events from the gNB-DU to the gNB-CU.  **To be continued offline** | | |
| 10.2.1.5. Successful Handover Report *Pending RAN2 discussion, but RAN2 will not discuss this in Rel-16 – no discussion needed at this time* | | |
| 10.2.1.6. UE Reported Mobility History | | |
| [R3-201740](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201740.zip) | (TP for SON BL CR for TS 38.413) UE reported history information (Huawei) | other |
| [R3-201741](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201741.zip) | (TP for SON BL CR for TS 38.423) UE reported history information (Huawei) | other |
| **CB: # 1004\_Email\_SON-MDT\_MobHist**  **- This email discussion is expected to produce TPs for 38.413 and 38.423**  **- Discuss UE history information from UE proposed in 1740 and 1741**  **- Come up with agreeable TPs**  **- Start the discussion based on the TPs referenced above as they are**  (HW - moderator)  Summary of offline discussion [R3-202465](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202465.zip) rev in [R3-202634](Docs\R3-202634.zip)  Proposal  R3-201740 – agreed  R3-201741 – agreed  HW: the intention is to make the spec forward compatible  E///: the RLF report is different  SS: Have RAN2 agreed that UE history info is only included in NR cell  HW: the list we get from NR contains both  **To be continued offline** | | |
| 10.2.2. Mobility Load Balancing **QUOTA: 7**  *Intra-system*  Add RESOURCE STATUS REQUEST/RESPONSE/UPDATE procedures for Xn, X2 (for EN-DC), F1 and E1 interfaces (IEs for each interface are to be discussed separately)  *Acknowledge the need of reporting spatial load distribution of cells; a solution is needed; RAN3 will work on a solution. Details on solutions are FFS. To be continued...*  *Inter-System MLB is not in WI scope*  For UEs in RRC\_CONNECTED, introduce it in Xn (and FFS on X2)  For TNL load, report maximum value and available value in % (FFS whether to report per-cell or per-node, and whether to report F1 and S1 separately)  For HW load, introduce it for E1(for CU-UP) and report maximum value and available value in %  Support per-SSB area granularity  For per slice granularity, support this granularity for CAC (Details and other metrics are FFS) | | |
| 10.2.2.1. MLB for Xn/X2/F1/E1 CAC shall be supported on F1, Xn, X2  TNL load shall be supported on F1 and E1  *Per-slice load: previous summary of offline disc in* [*R3-196161*](https://www.3gpp.org/ftp/tsg_ran/WG3_Iu/TSGR3_105bis/Docs/R3-196161.zip)*, noted; to be continued…*  Make Report Characteristics conditional to Registration Request setting to “start”.  Need to clarify what happens if we try to add a cell that is already initiated for reporting: If measurements are already initiated for a cell indicated in the Cell To Report IE, this information shall be ignored.  Add missing procedure text for all measurements and align FFS  Include the SSB index in the request and in the measurement (in CAC and PRB), with range [0..63].  Add measurement IDs to F1AP RESOURCE STATUS UPDATE  Make cell list optional (CATT 0433) with procedural text mandating the cell list when needed.  Add reporting SSB ID (CATT 0433)  Confirm averaging window that equals to the reporting periodicity for all periodic load measurements and interfaces for Resource Status Update messages in NR.  Align the BL CR on the existing NGAP and XnAP principle for signaling of S-NSSAI lists  Reword the text for unsuccessful operation (i.e. partial success not supported in Rel-16). | | |
| [R3-201742](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201742.zip) | (TP for SON BL CR for TS 38.423): MLB (Huawei) | other |
| [R3-201743](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201743.zip) | (TP for SON BL CR for TS 38.473): MLB (Huawei) | other |
| [R3-201744](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201744.zip) | (TP for SON BL CR for TS 36.423): MLB (Huawei) | other |
| [R3-201745](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201745.zip) | (TP for SON BL CR for TS 38.463): MLB (Huawei) | other |
| [R3-201832](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201832.zip) | Load reporting metric per slice for improved interoperability (Nokia, Nokia Shanghai Bell) | other |
| [R3-201833](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201833.zip) | Clarifications and handling of open points on load reporting metric (Nokia, Nokia Shanghai Bell) | discussion |
| [R3-201834](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201834.zip) | (TP for SON BL CR for TS 38.423) Load reporting updates (Nokia, Nokia Shanghai Bell) | other |
| [R3-201835](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201835.zip) | (TP for SON BL CR for TS 38.463) Load reporting updates (Nokia, Nokia Shanghai Bell) | other |
| [R3-201836](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201836.zip) | (TP for SON BL CR for TS 38.473) Load reporting updates (Nokia, Nokia Shanghai Bell) | other |
| [R3-201837](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201837.zip) | (TP for SON BL CR for TS 36.423) Load reporting updates (Nokia, Nokia Shanghai Bell) | other |
| [R3-201894](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201894.zip) | Further consideration on active UEs (updated) (NTT DOCOMO, INC., Verizon Wireless, Deutsche Telekom, Vodafone, TELECOM ITALIA, CMCC) | discussion |
| [R3-201898](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201898.zip) | (TP for SON BL CR on 36.423) Addition of active UEs in load reporting (NTT DOCOMO INC.) | discussion |
| [R3-201902](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201902.zip) | (TP for SON BL CR on 38.423) Addition of active UEs in load reporting (NTT DOCOMO INC.) | discussion |
| [R3-201906](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201906.zip) | (TP for SON BL CR on 38.473) Addition of active UEs in load reporting (NTT DOCOMO INC.) | discussion |
| [R3-201995](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201995.zip) | Introduction of MLB for EN-DC (CATT) | draftCRr, TS 36.300 v16.1.0, Rel-16, Cat. B |
| [R3-201996](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201996.zip) | Remaining Issues for MLB metrics (CATT) | discussion |
| [R3-201997](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201997.zip) | (TP on SON BLCR for 38.423) TP on MLB metrics (CATT) | other |
| [R3-201998](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201998.zip) | (TP on SON BLCR for 38.473) TP on MLB metrics (CATT) | other |
| [R3-201999](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201999.zip) | (TP on SON BLCR for 36.423) TP on MLB metrics (CATT) | other |
| [R3-202267](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202267.zip) | MLB – TP for BL CR for 38.423 (Ericsson) | other |
| [R3-202268](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202268.zip) | MLB – TP for BL CR for 38.473 (Ericsson) | other |
| [R3-202269](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202269.zip) | MLB – TP for BL CR for 38.463 (Ericsson) | other |
| [R3-202270](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202270.zip) | MLB – TP to BL CR for 36.423 (Ericsson) | other |
| [R3-202271](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202271.zip) | MLB – TP to BL CR for 38.300 (Ericsson) | other |
| [R3-202272](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202272.zip) | Discussion on remaining FFS for MLB in Rel-16 (Ericsson) | discussion |
| [R3-202273](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202273.zip) | Discussion on TNL and HW capacity indicators for MLB in Rel-16 (Ericsson) | discussion |
| [R3-202396](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202396.zip) | Left Issues for MLB (ZTE) | discussion |
| [R3-202397](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202397.zip) | TP for [NR\_SON\_MDT] BL CR for TS 36.423) Addition of MLB Features (ZTE) | other  Rev in [R3-202549](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202549.zip) (file has been fixed) |
| [R3-202398](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202398.zip) | TP for [NR\_SON\_MDT] BL CR for TS 38.423) Addition of MLB Features (ZTE) | other  Rev in [R3-202550](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202550.zip) (file has been fixed) |
| [R3-202399](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202399.zip) | TP for [NR\_SON\_MDT] BL CR for TS 38.473) Addition of MLB Features (ZTE) | other  Rev in [R3-202551](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202551.zip) (file has been fixed) |
| [R3-202439](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202439.zip) | Remaining issues of MLB (CMCC) | discussion |
| [R3-202440](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202440.zip) | TP to SON BLCR 38.300 on support of MLB (CMCC) | other |
| [R3-202441](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202441.zip) | TP to SON BLCR 38.423 on support of MLB (CMCC) | other |
| [R3-202438](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202438.zip) | TP to SON BLCR 38.300 on support of MLB (China Mobile International Ltd) | other |
| **CB: # 1005\_Email\_SON-MDT\_\_MLB**  **- Start the discussion from high level principles, list all the points raised (see below) as separate issues in the email discussion and solicit companies’ views on:**  **- SUL**  **- Active UEs**  **- Load reporting per node or cell level or slice**  **- Network sharing**  **- Slice Capacity Value vs. Slice Available Capacity Value**  **- HW Capacity Indicator IE**  **- The email discussion rapporteur has the freedom to list other issues (based on contributions submitted) for discussion**  **- Attempt to agree at least on some of the issues (as listed above), once there is an agreement or at least clear majority view – proceed to discuss the TPs**  **- This email discussion is expected to produce agreements (to be captured in the meeting minutes) on the high level principles, stage-3 TP for 38.473, 38.463, 38.423, 36.423, and possibly stage-2 TP for 38.300 – in that order**  **- FFS, corrections (e.g. ASN.1, presence, etc), missing parts (e.g. procedural text where needed, etc) are to be discussed when the discussion progresses to the TP stage (high level agreements should come first)**  **- Note – this email discussion may benefit from some “online” time, preferably after the “first phase” of collecting companies’ views on the high-level principles**  (Nok - moderator)  Summary of offline discussion [R3-202466](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202466.zip) rev [R3-202635](Docs\R3-202635.zip)  **SUL**  No more discussions on SUL in this meeting  **Active UEs:**  - further discussion could be beneficial to confirm and clarify the options:   * No active UE reporting * Reporting on Xn only (metric determined based on existing E1 signalling) * Reporting on F1 only, based on TS38.314, section 4.1.1.3.5 (RLC/MAC) * Reporting on F1 and Xn (same definition on both interfaces?) * Reporting on F1, Xn and X2 (same definition on all interfaces?)   Nokia: to continue discussion based on the above options  E///: we understand that we should re-use RAN2 definitions  HW: agree with E///; we can also remove “no active UE reporting” from the list  DCM: many operators support this; the definition in RAN2 is clear, also agree with HW; we support the last option  To continue the discussion based on:   * Reporting on Xn only (metric determined based on existing E1 signalling) * Reporting on F1 only, based on TS38.314, section 4.1.1.3.5 (RLC/MAC) * Reporting on F1 and Xn (same definition on both interfaces?) * Reporting on F1, Xn and X2 (same definition on all interfaces?)   **Network Sharing**  No more discussions on Network sharing in this meeting  **Slice Capacity Value vs. Slice Available Capacity Value**  Renaming seems agreeable. Question raised for further clarification (meaning of value 100).  E///: we prefer to keep the name  **HW Capacity Indicator IE**  It seems agreeable to introduce the HW Capacity Indicator IE on F1, and remove it from X2/Xn. (Already agreed for E1).  E///: what does this parameter express?  Nokia: agree that we don’t have a clear definition for the time being, but we envision a linear relative value  E///: that is what we had in LTE, but we don’t understand how to quantify it  Nokia: important for access control to know the load level of the DU; it is not just for load balancing  SS: We should follow LTE to define this IE; we don’t have to provide an exact definition in the spec  HW: in LTE there are three levels and this should be OK  ZTE: we would like to define this IE  DT: we see the benefit to introduce it  **introduce the HW Capacity Indicator IE on F1, and remove it from X2/Xn**  **To be continued offline** | | |
| 10.2.2.2. Void | | |
| 10.2.2.3. MLB for MR-DC | | |
| 10.2.3. RACH Optimization **QUOTA: 4**  RACH configuration conflict detection and resolution function is located at the gNB-DU; details on assistance info exchanged between CU and DU are FFS  gNB-DU needs to know the PRACH configuration of some or all cells neighbors to a cell subject to RACH configuration conflict, in order to effectively chose a new PRACH configuration for the cell in conflict  Signaling of UE RACH Reports to the gNB-DU is needed | | |
| 10.2.3.1. RACH Optimization Enhancements *Previous summary of offline disc in* [*R3-201132*](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201132.zip)*, noted*  *Previous in* [*R3-201329*](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201329.zip)*,* [*R3-201347*](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201347.zip) *(noted)*  *To be continued on this basis…* | | |
| [R3-201626](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201626.zip) | Discussion on the Leftover Issues on PRACH Optimization (China Telecom) | discussion |
| [R3-201628](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201628.zip) | (TP for [NR\_SON\_MDT] BL CR for TS 36.423) Addition of PRACH Coordination in EN-DC (China Telecom,CATT) | discussion |
| [R3-201792](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201792.zip) | Finalize PRACH parameters to be exchanged over Xn and F1 for RACH optimization (Qualcomm Incorporated) | discussion |
| [R3-201839](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201839.zip) | Discussion on PRACH Configuration Exchange based on CB#29 at RAN3#107-e (Nokia, Nokia Shanghai Bell) | discussion |
| [R3-201861](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201861.zip) | (TP for SON BL CR for TS 38.473): PRACH configuration exchange over (resubmission of [R3-201347](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201347.zip)) (Huawei, CATT, CMCC) | other |
| [R3-201862](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201862.zip) | (TP for SON BL CR for TS 38.423): PRACH configuration exchange (Huawei) | other |
| [R3-201863](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201863.zip) | (TP for SON BL CR for TS 38.473): PRACH configuration exchange (Huawei) | other |
| [R3-201864](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201864.zip) | (TP for SON BL CR for TS 38.423):UE RACH report for RACH optimization (Huawei, China Telecom) | other |
| [R3-201865](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201865.zip) | (TP for SON BL CR for TS 38.473):UE RACH report for RACH optimization (Huawei, China Telecom) | other |
| [R3-201990](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201990.zip) | (TP for SON BL CR for TS 38.423): Resubmission of [R3-201319](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201319.zip)(outcome of offline discussion in last meeting) (CATT,China Telecom,CMCC,Huawei) | other |
| [R3-201991](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201991.zip) | Discussion on PRACH coordination (CATT) | discussion |
| [R3-201992](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201992.zip) | (TP on SON BLCR for 38.300) TP on PRACH coordination (CATT) | other |
| [R3-201993](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201993.zip) | (TP on SON BLCR for 38.423) TP on PRACH coordination (CATT) | other |
| [R3-201994](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201994.zip) | (TP on SON BLCR for 38.473) TP on PRACH coordination (CATT) | other |
| [R3-202265](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202265.zip) | TP for PRACH Configuration IE Signalling on Xn Interface (Ericsson) | other |
| [R3-202266](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202266.zip) | Solution for RACH Conflict Detection and Resolution at gNB-DU (Ericsson) | other |
| [R3-202400](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202400.zip) | Left issue for PRACH configuraiton parameter (ZTE) | discussion |
| **CB: # 1006\_Email\_SON-MDT\_PRACHConfig**  **- Expectation level – given the state of the discussion, it would be good to agree at least some TPs with as many FFS as needed to keep everybody happy; don’t try too hard to finalize everything (even though it would be welcome if you manage to) – the important thing is to make progress**  **- Focus on PRACH configuration information to be exchanged over Xn and F1 first, once there are at least some agreements on the information to be exchanged, proceed to discuss the messages and IEs to be used**  **- Structure the email discussion as follows – list parameters to be included (based on contributions submitted) in PRACH information exchange and solicit companies’ views**  **- The email discussion rapporteur is free to include other issues in the discussion as well (e.g. X2 for EN-DC)**  **- Attempt to agree at least on some elements the information to be exchanged, once there is an agreement or at least clear majority view – proceed to discuss the TPs**  **- This email discussion is expected to produce agreements at least on some information to be exchanged and TPs (with as many FFS as needed)**  **- Note – this email discussion may benefit from some “online” time**  (CATT - moderator)  Summary of offline discussion [R3-202467](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202467.zip) rev in [R3-202636](Docs\R3-202636.zip)  **Introduce NR PRACH Configuration list per UL/SUL for a cell.**  **Reuse current *NR ARFCN* IE instead of introducing new IE.**  **Introduce *frequencyShift7p5khz* per-UL/SUL**  **No need to include the *freqBandIndicatorNR***  **Introduce *scs-SpecificCarrierList for UL (DL is FFS)***  ***Note:* whether it should be included in serving cell information or PRACH configuration is FFS**  Nokia: OK with the proposal (with the FFS)  E///: why DL?  Proposal 6: Introduce a new IE to indicate the TDD pattern  E///: don’t we have already TDD configuration exchanged?  Nokia: the existing one is dynamic  HW: we also wonder how the proposed one different  **Introduce an optional IE into the Served Cell Information NR structure to indicate the SSB Positions In Burst**  **Not introduce any cause IE for random access.**  Nokia: both are needed, it is about the introduction of the root sequence index  CATT: the proposal was to introduce cause value for PRACH configuration; during the discussion both topics got mixed together  E///: root sequence index is needed  Proposal 8:No need to send the timing offset from the gNB-CU toward the gNB-DU.  HW: time offset is obtained via measurement report from a UE, there is no cost to transfer it to DU; we don’t think OAM solution would work  ZTE: at least for DC it is already supported  Nokia: we don’t understand the need  Reuse an existing procedure to deliver the PRACH configuration of neighbour cell from CU to DU (details FFS).  CT: ok to follow the majority  E///: how do you know which cells are neighbours?  SS:  Note: As to whether/how the information should be included in both of the message or only one of the message, it is still FFS.  Proposal 10: Introduce NR PRACH Configuration over X2AP.  (Note: One company object and we suggest tofollow the view of majority)  **To be continued offline** | | |
| 10.2.3.2. Configuration Conflicts for RACH Optimization | | |
| [R3-201793](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201793.zip) | RACH configuration conflict detection and resolution function (Qualcomm Incorporated) | discussion |
| [R3-201840](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201840.zip) | Discussion on PRACH Configuration Conflict Resolution based on CB#30 at RAN3#107-e (Nokia, Nokia Shanghai Bell) | discussion |
| [R3-202286](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202286.zip) | (TP for SON BL CR for TS 38.423) RACH configuration conflict detection and resolution function (Qualcomm Incorporated) | other |
| [R3-202287](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202287.zip) | (TP for SON BL CR for TS 38.473) RACH configuration conflict detection and resolution function (Qualcomm Incorporated) | other |
| [R3-202401](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202401.zip) | (TP for [NR\_SON\_MDT] BL CR for TS 38.473)Left issue for RACH Report from UE (ZTE) | other |
| [R3-202402](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202402.zip) | (TP for [NR\_SON\_MDT] BL CR for TS 38.423)Addition of PRACH exchange (ZTE) | other |
| [R3-202403](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202403.zip) | (TP for [NR\_SON\_MDT] BL CR for TS 38.473)Addition of PRACH exchange (ZTE) | other |
| [R3-202263](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202263.zip) | TP for RACH Report Signalling on F1 Interface (Ericsson) | other  Move to 10.2.3.2 |
| [R3-202264](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202264.zip) | TP for RACH Report Signalling on XN Interface (Ericsson) | other  Move to 10.2.3.2 |
| [R3-201841](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201841.zip) | (TP for SON BL CR for TS 38.473) Introduction of RACH Assistance Information (Nokia, Nokia Shanghai Bell) | other  Move to 10.2.3.2 |
| [R3-201842](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201842.zip) | (TP for SON BL CR for TS 38.423) Introduction of RACH Assistance Information (Nokia, Nokia Shanghai Bell) | other  Move to 10.2.3.2 |
| **CB: # 1007\_Email\_SON-MDT\_RACHReport**  **- Discuss further details of the RACH report on Xn and F1 interfaces, specifically:**  **- Information to be included in the RACH report**  **- Messages to be used over Xn and F1 for the RACH report**  **- Triggering mechanism for DU to retrieve RACH Report from CU**  **- My suggestion is to list information to be exchanged in the RACH report and messages to be used (based on the contributions submitted) as separate issues in the email discussion to solicit companies’ views; once consensus or at least a majority view emerges – proceed to discuss TPs**  **- This email discussion is expected to produce agreements (to be captured in the meeting minutes) on the RACH report related information and messages, and TPs for 38.423 and 38.473**  **- Note: filtering is mentioned in many papers, but please note that the stage-2 agreed in the previous meeting already allows filtering and since it is unlikely that much more than that will be eventually put in the normative text, perhaps we don’t need to spend much time on filtering**  (QC - moderator)  Summary of offline discussion [R3-202468](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202468.zip) rev in [R3-202637](Docs\R3-202637.zip) | | |
| 10.2.4. PCI Selection *Depending on work progress, this may be discussed in the later part of the WI* | | |
| 10.2.5. Energy Saving *OAM requirements only*  *Depending on work progress, this may be discussed in the later part of the WI* | | |
| 10.3. Signaling Support for Minimization of Drive Testing **QUOTA: 7**  *For identified use cases, including coverage optimization, QoS verification via MDT, indoor MDT improvement, location info reporting, and sensor data collection (in cooperation with RAN2)*  *For stand-alone, NR-DC and EN-DC, including CU-DU split architecture*  *W1 specification work is not in the scope*  Initial Context Setup, Handover Request and Trace Start Message, and retrieve UE context response are used for signaling based MDT activation  Deactivate trace and trace failure indication are used for MDT deactivation  UE Context Request and Trace Start on F1, Bearer context Setup and Trace Start on E1 are used for signaling based MDT activation.  The EM of each node may send the MDT activation to CU-CP, DU, and CU-UP directly. If a gNB-CU receives a management based MDT activation, it may propagate the MDT configuration to DU and/or CU-UP over F1 and E1 if needed.  The EM of each node may send the MDT deactivation to CU-CP, DU, and CU-UP directly. If a gNB-CU receives a management based MDT deactivation, it may propagate the management based MDT deactivation to DU and/or gNB-CU-UP if needed.  In non-split RAN architecture, the NG-RAN node reports the MDT data to TCE.  In split RAN architecture, the MDT data is reported to TCE by each node directly; it is FFS whether the gNB-CU-CP may combine MDT data received by other nodes to report to TCE | | |
| 10.3.1. MDT Activation and Reporting Signaling based logged MDT configuration includes following parameters (NG):  - MDT mode configuration, i.e., logged MDT only;  - Area scope of MDT, including cell list of E-CGI or N-CGI, TAC list of serving PLMN, TAI list, and PLMN wide; (may need to be updated pending RAN2 discussion)  - Logging interval;  - Logging duration;  - Bluetooth Measurement Configuration;  - WLAN Measurement Configuration;  Signaling based immediate MDT configuration includes following parameters (NG):  - MDT mode configuration: immediate MDT only, immediate MDT and trace;  - Area scope of MDT, including cell list of E-CGI or N-CGI, TAC list of serving PLMN, TAI list, and PLMN wide; (may need to be updated pending RAN2 discussion)  - MDT location information, enumerated type;  - Signaling based MDT PLMN List.  NG-RAN receives the management based MDT allowed information in the NG Initial Context Setup Request message. The management based MDT allowed information includes the Management Based MDT Allowed indication and optionally the Management Based MDT PLMN List  Agree to define Cell Traffic Trace in F1 and E1.  No NR CGI ID is included in E1 and F1 Cell Traffic Trace. AP IDs shall be included in the Cell Traffic Trace message.  It is proposed to agree the below changes to BL CR.  - Agree to remove FFS for immediate MDT configuration and logged MDT configuration in MDT Configuration-NR IE in NG, Xn, E1, F1. Taking example in [R3-200496](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-200496.zip).  - Add new IE-Reporting Type for Event trigger Logged MDT in NG and Xn. i.e. take Ericson proposal in [R3-200965](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-200965.zip).  - Agree to MDT measurement activation bitmap for immediate MDT in NG.  - The MDT measurements configurations except the area of scope IE for EUTRAN connecting to 5GC can be OCTET STRING and refer to TS 36.413 to simplify NG specification impact.  Whether new value for logging interval IE is defined is pending to RAN2 agreement.  It is proposed to send a LS to RAN2, informing RAN3 agreed to remove the management based MDT Allowed IE and keep MDT PLMN list. Then RAN2 can take RAN3 agreement into account and update specification if needed.  It is proposed to add MDT Location Information IE in MDT Configuration IE in F1, and it is marked FFS | | |
| [R3-201783](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201783.zip) | (TP for MDT BL CR for TS 38.423) Remaining issues in MDT (Qualcomm Incorporated) | other |
| [R3-201784](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201784.zip) | (TP for MDT BL CR for TS 38.413) Remaining Issues in MDT (Qualcomm Incorporated) | other |
| [R3-201790](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201790.zip) | Remaining issues in MDT (Qualcomm Incorporated) | discussion |
| [R3-201838](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201838.zip) | (TP for MDT BL CR for TS 38.473) Further discussion on addition of immediate MDT for intra-DU inter-cell mobility scenarios (Nokia, Nokia Shanghai Bell) | other |
| [R3-201866](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201866.zip) | (TP for MDT BL CR for TS 38.413): Clean up FFSes in MDT BLCR (Huawei,CMCC) | other |
| [R3-201867](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201867.zip) | (TP for MDT BL CR for TS 38.423): Clean up FFSes in MDT BLCR (Huawei, CMCC) | other |
| [R3-201868](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201868.zip) | (TP for MDT BL CR for TS 38.473): Clean up FFSes in MDT BLCR (Huawei) | other |
| [R3-201869](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201869.zip) | (TP for MDT BL CR for TS 38.463): Clean up FFSes in MDT BLCR (Huawei) | other |
| [R3-201870](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201870.zip) | Beam related configuration for immediate MDT (Huawei) | discussion |
| [R3-201871](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201871.zip) | (TP for MDT BL CR for TS 38.413): Beam related configuration for immediate MDT (Huawei) | other |
| [R3-201872](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-201872.zip) | (TP for MDT BL CR for TS 38.423): Beam related configuration for immediate MDT (Huawei) | other |
| [R3-202000](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202000.zip) | Support of MDT (CATT) | discussion |
| [R3-202001](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202001.zip) | (TP on MDT BLCR for 38.413)Correction on MDT (CATT) | other |
| [R3-202002](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202002.zip) | (TP on MDT BLCR for 38.423)Correction on MDT (CATT) | other |
| [R3-202258](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202258.zip) | TP for introducing Area scope for neighbour cell configuration on NGAP (Ericsson) | other |
| [R3-202259](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202259.zip) | TP for introducing Area scope for neighbour cell configuration on Xn (Ericsson) | other |
| [R3-202305](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202305.zip) | URI for Streaming Trace reporting (Nokia, Nokia Shanghai Bell) | discussion |
| [R3-202319](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202319.zip) | Open issues for MDT activation and report (LG Electronics) | discussion |
| [R3-202379](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202379.zip) | (TP for MDT BL CR for 38.473) Correction for Cell Traffic Trace message and MDT configuration (Samsung R&D Institute UK) | other |
| [R3-202380](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202380.zip) | (TP for MDT BL CR for 38.463) Correction for Cell Traffic Trace message and MDT configuration (Samsung R&D Institute UK) | other |
| [R3-202381](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202381.zip) | (TP for MDT BL CR for 38.413) Addition of Privacy Indicator to Cell Traffic Trace message (Samsung R&D Institute UK) | other |
| [R3-202382](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202382.zip) | (TP for MDT BL for 38.423) Propagation for Management Based MDT PLMN List (Samsung R&D Institute UK) | other |
| [R3-202404](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202404.zip) | Left issue for MDT (ZTE) | discussion |
| [R3-202405](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202405.zip) | (TP for [NR\_SON\_MDT] BL CR for TS 38.413)Addition of RACH OPTIMIZATION (ZTE) | other |
| [R3-202406](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202406.zip) | (TP for [NR\_SON\_MDT] BL CR for TS 38.423)Addition of RACH OPTIMIZATION (ZTE) | other |
| [R3-202407](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202407.zip) | (TP for [NR\_SON\_MDT] BL CR for TS 38.463)Addition of RACH OPTIMIZATION (ZTE) | other |
| [R3-202408](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202408.zip) | (TP for [NR\_SON\_MDT] BL CR for TS 38.473)Addition of RACH OPTIMIZATION (ZTE) | other |
| [R3-202256](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202256.zip) | Measurement Configuration updates on NGAP TP (Ericsson) | other  Move to 10.3.1 |
| [R3-202257](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202257.zip) | Measurement Configuration updates on Xn TP (Ericsson) | other  Move to 10.3.1 |
| [R3-202260](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202260.zip) | Averaging interval Discussion (Ericsson) | discussion  Move to 10.3.1 |
| **CB: # 1008\_Email\_SON-MDT\_MDT**  **- Discuss missing MDT functionality and parameters as proposed in the contributions, specifically:**  **- “Signaling Based Logged MDT State” flag in the RETRIEVE UE CONTEXT RESPONSE message on XnAP**  **- MDT activation information in the UE Context Modification procedure**  **- "Deactivate MDT" codepoint to the MDT Activation IE**  **- Area scope configuration for logged MDT**  **- Beam related configuration for immediate MDT**  **- NR CGI in the S1AP Cell Traffic Trace message**  **- Stream based MDT and Trace reporting**  **- management based MDT PLMN list transfer during Xn HO**  **- TRACE FAILURE INDICATION message usage in case of intra-system inter-RAT HO via Xn**  **- PLMN Wide IE from area scope of MDT IE for NR and LTE**  **- Check consistency with RAN2 agreements, fix what needs to be fixed (e.g. logging interval, M5-M7 for split bearers, M6, etc)**  **- Check and try to resolve FFS**  **- Misc. corrections, as proposed in the papers, can be addressed during the TP discussion**  **- Discuss other minor corrections and additions, as proposed in the papers**  **- This email discussion is expected to produce agreements (to be captured in the meeting minutes) and TPs for 38.413, 38.423, 38.473, 38.463**  **- My suggestion is to first discuss all the points listed above, by including all of them as issues in the email discussion, collect companies’ views and attempt to agreed at least some of them; then proceed to discuss the TPs**  **- Some companies proposed to send out LS, this can be discussed as lower priority**  **- Note wrong title in 2405, 2406, 2407, 2408**  (Nok - moderator)  Summary of offline discussion [R3-202469](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202469.zip) rev in [R3-202638](Docs\R3-202638.zip) | | |
| 10.3.2. MDT for Inactive UEs | | |
| [R3-202261](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202261.zip) | Logged MDT availability indicator signal over Xn (Ericsson) | other |
| **CB: # 1009\_Email\_SON-MDT\_MDT\_Inactive**  **- Take into account related points raised in 1790 (e.g. “open issue #1”) and 1783, 1784 (submitted to 10.3.1)**  **- Collect companies’ views on the issue of Logged MDT availability flag in the RETRIEVE UE CONTEXT RESPONSE message, proceed only if there is consensus or at least clear majority view**  (E/// - moderator)  Summary of offline discussion [R3-202470](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202470.zip) rev in [R3-202639](Docs\R3-202639.zip) | | |
| 10.3.3. MDT for MR-DC Introduce MDT Configuration NR IE in Trace Activation IE in both S1AP and X2 AP.  MDT configuration NR IE is defined as an OCTET STRING type IE referring to TS 38.413 for detailed definition.  Add the following note in proper place of the procedural text: “Only immediate MDT configurations are included in the MDT configuration NR IE in this version of the specification”.  Reuse the current Management MDT allowed IE and MDT PLMN list IE to indicate the user consent for NR.  Introduce both the Management MDT allowed IE and MDT PLMN list IE in SgNB Addition Request message and SgNB Modification Request message.  Introduce Cell Traffic Trace from S-engNB to MeNB to X2AP to support management based MDT triggered in S-en-gNB.  *FFS on whether to add the NR CGI in S1AP Cell Traffic Trace message*  *FFS how to support M5~M7 in S-gNB in EN-DC case and pending to RAN2 discussion* | | |
| [R3-202262](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202262.zip) | User consent propagation updates for stage 2 MDT (Ericsson) | other |
| [R3-202409](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202409.zip) | Left issue for EN-DC MDT (ZTE) | discussion |
| **CB: # 1010\_Email\_SON-MDT\_MDT\_MRDC**  **- 2262 can be discussed directly based on the TP itself, no need to include it in the questionnaire**  **- For 2409, collect companies’ views by listing it as an “issue” in the email discussion; proceed to TP if there is consensus**  (ZTE - moderator)  Summary of offline disc [R3-202471](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202471.zip) rev in [R3-202640](Docs\R3-202640.zip) | | |
| 10.3.4. Void | | |
| 10.3.5. Specification of Layer 2 Measurements *In cooperation with RAN2* | | |
| [R3-202410](file:///C:\Technical%20Documents\meetings\RAN3-107bis-e\Docs\R3-202410.zip) | L2 measurement (ZTE) | discussion |
| **# 1011\_Email\_SON-MDT\_L2Meas**  **- Void: 2256, 2257, and 2260 are moved to AI 10.3.1, the only remaining paper 2410 seems to be for RAN2 anyway** | | |