3GPP TSG-RAN WG2 Meeting #122 R2-2306546

Incheon, Korea, May 22-26, 2023

Agenda Item: 8.6

Source: Session chair (CMCC)

Title: Report from SON/MDT session

Document for: Approval

**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:
* [AT121][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

## 5.4 SON MDT support for NR

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

### 5.4.0 In-Principle-Agreed CRs

### 5.4.1 General and stage-2 corrections

Including incoming LSs, TS 37.320 corrections

### 5.4.2 TS 38.314 corrections

### 5.4.3 RRC corrections

R2-2306096 Discussion on location configuration for SON and MDT features Huawei, HiSilicon discussion Rel-16 NR\_SON\_MDT-Core

Agreements:

1 RAN2 to confirm understanding#1 for both LTE SON/MDT and NR SON/MDT. If agreeable, there are no specification impacts.

 Understanding#1: For measurement reports and other reports (i.e. RLF report/SCG failure report), the NR can configure IE (2) only if NR configures IE (1)

FFS:

- NR can configure IE btNameList, only if NR configures IE includeBT-Meas for one or more measurements (measurement reports)

- NR can configure IE wlanNameList, only if NR configures IE includeWLAN-Meas for one or more measurements (measurement reports)

- NR can configure IE sensorNameList, only if NR configures IE includeSensor-Meas for one or more measurements (measurement reports)

Proposal 3: If proposal 2 is agreeable, it is proposed to capture them in Rel-17 36.331 and 38.331 specifications, and the changes can be early implementable.

Proposal 4: If both lists are present (i.e. includeBT-Meas and btNameList, or includeWLAN-Meas and wlanNameList, or includeSensor-Meas and sensorNameList), the UE only applies btNameList/wlanNameList/ sensorNameList for both immediate MDT and RLF/SCGFailureInformation reporting.

Proposal 5: If proposal 4 is agreeable, it is proposed RAN2 to discuss whether/how to capture in the TS 36.331/TS 38.331.

R2-2305263 Clarification on RLF Cause Samsung discussion NR\_SON\_MDT-Core

=> The issue is identified and in this case UE doesn’t need to report RLF.

=> CR will be provided to next meeting.

R2-2305264 Clarification on RLF cause Samsung CR Rel-16 38.331 16.12.0 4095 - F NR\_SON\_MDT-Core

R2-2305266 Clarification on RLF cause Samsung CR Rel-16 38.331 16.12.0 4096 - F NR\_SON\_MDT-Core

R2-2305980 Correction on logging RLM resources in the RLF report Ericsson, Qualcomm discussion Rel-16 38.331 NR\_SON\_MDT-Core

=> Not pursued

R2-2305981 Correction on logging RLM resources in the RLF report Ericsson, Qualcomm discussion Rel-17 38.331 NR\_SON\_MDT-Core

=> We can discuss how to address the issue from R17.

=> Postponed

R2-2305982 Correction to the setting of locationInfo in MeasResultSCG-Failure Ericsson discussion Rel-16 38.331 NR\_SON\_MDT-Core

=> CR is agreed

R2-2305983 Correction to the setting of locationInfo in MeasResultSCG-Failure Ericsson discussion Rel-17 38.331 NR\_SON\_MDT-Core

=> CR is agreed

R2-2306037 Correction on the release of logged measurement configuration as well as logged measurement information QUALCOMM Inc. CR Rel-16 38.331 16.12.0 4125 - F NR\_SON\_MDT-Core

=> CR is agreed

=> R17 CR provided in R2-230xxxx is also agreed.

## 6.6 SON MDT

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

Tdoc Limitation: 2 tdocs

### 6.6.0 In principle agreed CRs

### 6.6.1 SON Corrections

R2-2305417 Correction to NR M3 measurement Nokia, Nokia Shanghai Bell CR Rel-17 37.320 17.3.0 0124 1 F NR\_ENDC\_SON\_MDT\_enh-Core R2-2302863

=> CR is agreed

R2-2305418 Correction to timeSCGFailure Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.4.0 4020 1 F NR\_ENDC\_SON\_MDT\_enh-Core R2-2303646

=> Revised to change the procedure text. CB Friday.

R2-2306822 Correction to timeSCGFailure Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.4.0 4020 2 F NR\_ENDC\_SON\_MDT\_enh-Core

=> Revised to R2-2306899 to update the cover page. With this change, CR is agreed.

R2-2306899 Correction to timeSCGFailure Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.4.0 4020 3 F NR\_ENDC\_SON\_MDT\_enh-Core

=> Agreed

R2-2305482 Correction on timeSinceCHO-Reconfig in TS 38.331 CATT CR Rel-17 38.331 17.4.0 4110 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> CR is Agreed

R2-2305984 Correction to the handling of RLF-Report after successful HO Ericsson discussion Rel-17 38.331 NR\_ENDC\_SON\_MDT\_enh-Core

=> CB Friday #567

R2-2306847 Correction to the handling of RLF-Report after successful HO Ericsson CR Rel-17 38.331 17.4.0 4167 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> CR is agreed.

R2-2305985 Miscellaneous corrections on SHR Ericsson discussion Rel-17 38.331 NR\_ENDC\_SON\_MDT\_enh-Core

=> Not pursued

R2-2306394 Correction on SCG failure scenario of MHI in TS 38.331 CATT CR Rel-17 38.331 17.4.0 4148 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> CR is agreed

R2-2306034 NB-IoT UE location Info in RLF report Qualcomm Incorporated discussion Rel-17

=> Postponed to next meeting

R2-2306035 Correction on UE location information in NB-IoT RLF report Qualcomm Inc. CR Rel-17 38.331 17.4.0 4124 - F NR\_ENDC\_SON\_MDT\_enh-Core

### 6.6.2 MDT Corrections

R2-2306097 Discussion on the UL PDCP packet average delay measurement of split bearer Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

=> Noted

R2-2306098 Stage-2 correction on the UL PDCP packet average delay Huawei, HiSilicon CR Rel-17 37.320 17.3.0 0126 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> CR is agreed.

R2-2306474 Report of new packet loss rate China Unicom report Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

=> Noted

R2-2306475 38.314 CR for the introduction of packet loss rate with delay threshold China Unicom, CATT CR Rel-17 38.314 17.2.0 0028 - B NR\_ENDC\_SON\_MDT\_enh-Core

=> Technical endorsed and will discuss in main session to decide whether or not to agree type B CR.

R2-2304635 LS on Excess Packet Delay Threshold for MDT (S5-232150; contact: Nokia) SA5 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN3 Cc:RAN2

R2-2304655 Reply LS on the user consent for trace reporting (S3-231398; contact: Huawei) SA3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN3 Cc:RAN2, SA5, SA1, RAN

## 7.13 Further enhancement of data collection for SON MDT in NR and EN-DC

(NR\_ENDC\_SON\_MDT\_enh2-Core; leading WG: RAN3; REL-18; WID: RP-221825)

Includes LS in’s related to AI/ML for NG-RAN

Time budget: 1 TU

Tdoc Limitation: 6 tdocs

### 7.13.5 SON for NR-U

Focus on UE impacts. RAN2/RAN3 progress should be considered.

R2-2306557 Summary of AI 7.13.5 SON for NR-U (Ericsson)

=> Noted

R2-2306558 Open issues and proposals on AI 7.13.5 SON for NR-U (Ericsson)

Agreements:

1 Only the preamble transmission attempts for which LBT was successful are represented in the “per RA attempt info list” for a given beam.

2 On how to represent the preamble transmission attempts blocked by LBT,

 Introduce a field (or reusing the existing field) that counts the number of preamble transmissions blocked by LBT per RA procedure, and a flag indicating transmission failures experienced right before beam switching. Details can FFS.

3 For the RA-Report, the enhancements on the handling of the “per RA attempt info list” (i.e. as per Proposal 1) apply only to the last RA procedure in the last BWP prior to the random access success.

4 For the other BWPs in which the UE experienced the consistent LBT failure, the UE logs in the RA-InformationCommon:

a. The locationAndBandwidth information of the BWP

b. The subcarrierSpacing information of the BWP

c. The absoluteFrequencyPointA information of the BWP ( How to log once for all the BWPs of the cell is FFS)

5 As baseline, RAN2 assumes the following:

a. Enhancements discussed for the RA-InformationCommon for the RA-Report are applicable also to the RLF-Report

b. The detailed “per RA attempt info” are only reported in the RLF-Report for the last RA procedure before RLF/HOF, FFS whereas limited information are reported for the other BWPs in which consistent LBT failure is detected

c. The above bullets may be revisited case by case depending on future agreements.

6 The UE logs RA-InformationCommon including LBT info in the RLF-Report, in case of HOF and when the RLF cause is randomAccessProblem or beamFailureRecoveryFailure (as in legacy).

7 The UE logs the available RSSI measurement in the RLF-Report. FFS in which case.

8 The UE should log the following RSSI values in the RLF-Report:

a. For RLF, the latest measured RSSI of the NR-U channel of the last serving cell if measRSSI-ReportConfig is configured for the corresponding frequency.

b. FFS: For HOF, the latest measured RSSI of the NR-U channel of the source cell, and the latest measured RSSI of the NR-U channel of the target cell, if measRSSI-ReportConfig is configured for the corresponding frequency.

=> Next meeting the discussion on NR-U will focus on the following FFS issues.

Proposal 9 FFS: The UE logs in the RLF-Report the BWP information (at least the locationAndBandwidth, and the subcarrierSpacing) of all the BWPs in which the UE detected the consistent UL LBT failures right before the RLF/HOF.

Proposal 21 FFS: Related to the target cell, the UE logs in the SHR the random access information, same as for the RA- and RLF-Report, i.e. including the number of UL LBT failures during HO (depending on the outcome of Proposal 2), and the information on the multiple BWPs (depending on the outcome of Proposal 4) in which consistent UL LBT failures was triggered. FFS on the trigger conditions to log.

Proposal 23 FFS: RAN2 to discuss what LBT information (if any) related to the source cell of the HO should be included in the SHR.

Proposal 11 FFS:Support these further options on when to log the RA-InformationCommon including LBT info in the RLF-Report:

b. When the RLF cause is lbtFailure, and the UE was performing random access in other BWPs due to triggered consistent UL LBT failures

Proposal 18 FFS: UE to log indication on whether the detected power at the moment of LBT failure was above the configured EDT threshold (maxEnergyDetectionThreshold).

Proposal 6 , 19 and 20 also FFS.

* **[Post122][590][R18 SON/MDT] Open issues of SON NR-U (Ericsson)**

 Scope: The above issues which marked as FFS.

Intended outcome: Report which is assumed to have the consensus on how to handle these issues.

 Deadline: 23:24 UTC, The last Friday before RAN2#123 starting

R2-2305424 Discussion on SON for NR-U Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305485 SON Enhancement for NR-U CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305658 SON/MDT enhancements for NR-U Samsung R&D Institute India discussion

R2-2305706 Discussion on MRO for NR-U Lenovo discussion Rel-18

R2-2305728 Discussion on SON for NR-U Xiaomi discussion Rel-18

R2-2305777 SONMDT enhancement for NR-U CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306043 Discussion on NR-U Related Enhancements Qualcomm Incorporated discussion Rel-18

R2-2306101 Discussion on SON for NR-U Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306247 Consideration on NR-U related SON ZTE Corporation, Sanechips discussion Rel-18

R2-2306450 Enhancements of SON reports for NR-U Ericsson discussion

### 7.13.1 Organizational

Ls in Rapporteur input.

R2-2304622 LS on MRO for CPC and CPA and fast MCG recovery (R3-230992; contact: Huawei) RAN3 LS in Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core To:RAN2

R2-2304628 LS on potential override of logged MDT reports upon moving from SNPN to PLMN (R3-232118; contact: Ericsson) RAN3 LS in Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core To:RAN2

R2-2304630 LS on intra-system inter-RAT SHR and SPR (R3-232140; contact: Huawei) RAN3 LS in Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core To:RAN2

R2-2304631 Reply LS on RACH enhancement for R18 SONMDT (R3-232144; contact: Huawei) RAN3 LS in Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core To:RAN2

R2-2304656 Reply LS on user consent of Non-public Network (S3-231399; contact: Vodafone) SA3 LS in Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core To:RAN3 Cc:RAN2, SA5

R2-2306100 Discussion on RAN2 impacts due to the LS R3-232144 Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306290 Discussion on RAN2 impacts due to the LS R3-232140 Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306452 Summary of AI 7.13.5 SON for NR-U (Ericsson) Ericsson discussion

R2-2305986 Running CR for Rel-18 SON MRO Ericsson discussion Rel-18 38.331 NR\_ENDC\_SON\_MDT\_enh2-Core

=> use as the baseline for further running CR construction.

R2-2306753: Running 38.331 CR for logged MDT enhancements and NPN Huawei discussion Rel-18 38.331 NR\_ENDC\_SON\_MDT\_enh2-Core

=> use as the baseline for further running CR construction.

R2-2306531 Running 38.331 CR for RACH report ZTE Corporation, Sanechips draftCR Approval 7.13.1 Rel-18 38.331 NR\_ENDC\_SON\_MDT\_enh2-Core

=> use as the baseline for further running CR construction.

R2-2306754: Running 36.331 CR for logged MDT enhancements Huawei discussion Rel-18 36.331 NR\_ENDC\_SON\_MDT\_enh2-Core

=> use as the baseline for further running CR construction.

R2-2306530 Running 36.331 CR for SN RACH report ZTE Corporation, Sanechips draftCR Approval 7.13.1 Rel-18 36.331 NR\_ENDC\_SON\_MDT\_enh2-Core

=> use as the baseline for further running CR construction.

* **[Post122][555][R18 SON/MDT] Running CR for Rel-18 SON MRO (Ericsson)**

 Scope: Use R2-2305986 as baseline to continue the running 38.331CR for R18 SON MRO. If impact on 36.331 is identified, also provide corresponding running 36.331 CR.

Intended outcome: Running CR baselines for R18 SON MRO

 Deadline: 23:24 UTC, The last Friday before RAN2#123 starting

* **[Post122][556][R18 SON/MDT] Running CR for Rel-18 for logged MDT enhancements and NPN (Huawei)**

Scope: Use R2-2306753 and R2-2306754 as baselines to continue the running 38.331CR and 36.331 CR for R18 logged MDT enhancements and NPN.

 Intended outcome: Running CRs baseline for R18 logged MDT enhancements and NPN

 Deadline: 23:24 UTC, The last Friday before RAN2#123 starting

* **[Post122][557][R18 SON/MDT] Running CR for Rel-18 SON on RACH report (ZTE)**

Scope: Use R2-2306531 and R2-2306530 as baselines to continue the running 38.331CR and 36.331 CR for R18 SON on RACH report

 Intended outcome: Running CRs baseline for R18 SON on RACH report

 Deadline: 23:24 UTC, The last Friday before RAN2#123 starting

### 7.13.2 MRO for inter-system handover for voice fallback

R2-2306761 Summary for 7.9.13 MRO for inter-system handover for voice fallback (Nokia)

Agreements:

1 Introduce a new indication in the LTE RLF report for the case an RLF occurs shortly after successful HO from NR to E-UTRAN for voice fallback.

2 UE to log the time until reconnection during RRC connection establishment to the acceptable cell and reconnection cell ID in is absent, which will reuse the legacy field.

R2-2305483 Further Consideration on Inter-system Handover for Voice Fallback CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305678 MRO for inter-system handover for voice fallback Samsung R&D Institute India discussion Withdrawn

R2-2305703 MRO for inter-system handover for voice fallback Lenovo discussion Rel-18

R2-2305722 MRO for inter-system handover for voice fallback Samsung R&D Institute India discussion

R2-2305778 Further consideration on voice fallback CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305987 Mobility Robustness Optimization – all topics Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306042 Data collection for MRO for inter-system handover for voice fallback Qualcomm Incorporated discussion Rel-18

R2-2306245 Consideration on MRO for inter-system handover for voice fallback ZTE Corporation, Sanechips discussion Rel-18

R2-2306291 Discussion on MRO for inter-system handover for voice fallback Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306455 Discussion on inter-system HO for voice fallback NTT DOCOMO, INC. discussion

### 7.13.3 MDT override

R2-2305988 MDT enhancements Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

Agreements:

1 In NR, considering UE capability, UE reports availability of signalling based logged MDT configuration without checking the RAT information.

2 RAN2 confirms that sigLogMeasConfigAvailable can be re-used for to indicate the availability of the LTE signalling based logged MDT in NR.

R2-2304932 Considerations on MDT override enhancement for E-UTRAN Beijing Xiaomi Software Tech discussion Rel-18

R2-2305273 Discussion on MDT override protection LG Electronics discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305421 Signalling based logged MDT override protection Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

### 7.13.6 RACH enhancement

R2-2306760 Summary of 7.13.6 RACH enhancement (ZTE)

=> Send LS to inform RAN3 about our agreements. (ZTE, #577)

* **[At122][577][R18 SON/MDT] LS to RAN3 on RACH enhancement (ZTE)**

 Scope: Capturing RAN2 related agreements of this meeting

Intended outcome: Agreeable LS to RAN3

 Deadline: 23:24 UTC, Thursday

Agreements:

RACH Partitioning

1 RAN2 confirms agreed “used feature combination” is all the features configured in the FeatureCombination applied for the RACH procedure.

2 Feature specific RACH information is included in RA-InformationCommon and is also included for RLF report and CEF report.

Msg3 repetition

3 Not include the number of Msg3 repetition applied in RACH procedure in RA report.

SN RACH Report

4 When reporting SN NR RA-report to LTE BS, the unique PSCell identities (i.e. if a PSCell occurs more than once in NR RA-ReportList, it is recorded only once in the list of PSCell identities) are included outside the NR RA report container.

5 Revert the agreement that UE does not support reporting NR RA report to LTE when it is in standalone LTE mode i.e., eNB may fetch the NR RA report irrespective to whether the UE is in single connectivity or dual connectivity.

6 No need to introduce availability bit to notify LTE BS there are available NR RA report for fetching.

7 Enhance the LTE UE information Request procedure with NR RA-Report request flag to fetch the NR RA-Report in LTE.

8 For NR RACH report, UE performs RPLMN checking before sending the NR RACH report to LTE BS.

9 A new UE capability is introduced to indicate whether UE supports NR RACH Report in LTE.

R2-2306848 Reply LS on RACH enhancement

=> Approved

R2-2304930 Consideration on the SON enhancements for RACH report Beijing Xiaomi Software Tech discussion Rel-18

R2-2305070 SON enhancements for RACH Apple discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305425 Discussion on RACH enhancement for SON Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305486 RACH enhancement for SON CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305616 Further considerations on RACH Enhancement CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305660 SON/MDT enhancements for RACH Samsung R&D Institute India discussion Withdrawn

R2-2305661 SON/MDT enhancements for RACH Samsung R&D Institute India discussion

R2-2305989 RA report enhancement Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306102 Discussion on RACH enhancement Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306207 SON enhancement for RA report SHARP Corporation discussion R2-2303829

R2-2306248 Consideration on RACH enhancements ZTE Corporation, Sanechips discussion Rel-18

R2-2306339 Further Discussion on RACH enhancements for SON China Telecom Corporation Ltd. discussion

### 7.13.7 SON/MDT enhancements for Non-Public Networks

R2-2306764 [Pre122][8XX][SON/MDT] Summary of 7.13.7 SONMDT enhancements for NPN CATT

=> FFS: Include the SNPN ID/CAG ID(s) in the logged MDT report or cell type indication (e.g., NPN cell).

Agreements:

1 Include CAG ID(s) in the logged MDT area configuration.

For online discussion

Proposal 1: RAN2 to discuss whether to include PNI-NPN ID (e.g. CAG ID) in the RLF/HOF report.

Proposal 2: RAN2 to discuss which format (NID only or PLMN+NID) and how to include SNPN related ID in the RLF/HOF report.

Proposal 3: RAN2 to discuss whether to include SNPN ID in the logged MDT area configuration.

Discussed if time allows

Proposal 8: RAN2 to discuss:

- Whether and how to introduce information reporting for OOC analysis involving NPN network;

- Whether and which to introduce other SON/MDT enhancements for NPN in this Release;

- Whether equivalent SNPN list (limit to one SNPN ID in this Release) needs to be considered to align with the future NPN evolution;

- Whether SNPN ID checking is needed before transmitting the information for the corresponding SON and MDT reports.

R2-2304931 Discussion on the SONMDT enhancement for NPN Beijing Xiaomi Software Tech discussion Rel-18

R2-2305325 Discussion on SON enhancements for NPN vivo discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2305426 Discussion on NP related issues in SON/MDT Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305487 SON and MDT Enhancement for NPN CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305647 SON/MDT enhancements for NPN Samsung R&D Institute India discussion

R2-2305990 SON support for NPN Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306249 Consideration on SON-MDT support for NPN ZTE Corporation, Sanechips discussion Rel-18

R2-2306293 Discussion on SONMDT enhancements for NPN Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306358 Discussion on the “LS on potential override of logged MDT reports upon moving from SNPN to PLMN” from RAN3 (R3-232118) Beijing Xiaomi Software Tech discussion Rel-18

### 7.13.8 Other

R2-2305779 Further considerations on fast MCG recovery CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

Agreements:

1 RAN2 confirms scenario of near failure fast MCG recovery.

2 RAN2 confirms scenario f1, i.e., SCG fails or is deactivated before the UE sends the MCGFailureInformation. FFS RAN2 impact.

Proposal 2: UE reports following information for the optimization of Near failure of fast MCG recovery:

Elapsed T316 between the transmission of MCGFailureInformation and receiving RRC reconfiguration or RRC release message;

or,

The ratio between the elapsed T316 and the configured value of T316

Proposal 3: For near failure fast MCG link recovery, one T316 related triggering threshold is configured, and UE only generates the report when the threshold is met.

Proposal 5: UE reports following time information for fast MCG link recovery optimization:

Time between MCG failure (or transmitting MCGFailureInformation) and SCG failure for case a and f1

Time between MCG failure (or transmitting MCGFailureInformation) and SCG deactivation for case f1

* **[Post122][584][R18 SON/MDT] Open issues on fast MCG recovery (CMCC)**

 Scope: Discussion should focus on the proposals raised and not concluded in R2-2305779.

Intended outcome: Report

 Deadline: 23:24 UTC, Last Thursday before next RAN2 meeting

R2-2305326 Discussion on MRO for CPAC vivo discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2305340 SON on fast MCG recovery OPPO discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305488 Discussion on Fast MCG recovery and MHI Enhancement CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305707 SON enhancements for CPAC Lenovo discussion Rel-18

R2-2305708 MRO for fast MCG link recovery Lenovo discussion Rel-18

R2-2305780 SON MDT enhancement for MR-DC CPAC CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305781 MHI Enhancement for SCG Activation Deactivation CMCC, Ericsson, CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305991 RAN observability issues for DRBs with stringent QoS requirements Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306103 Discussion on Fast MCG recovery, CPAC and MDT overide Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306209 Discussion on failure information for CPAC SHARP Corporation discussion R2-2301566

R2-2306219 MRO for fast MCG recovery SHARP Corporation discussion R2-2301565

R2-2306250 Remaining issues on fast MCG recovery enhancement ZTE Corporation, Sanechips discussion Rel-18

R2-2306390 MRO for Fast MCG Recovery, CPAC and SCGFailureInformation Samsung R&D Institute India discussion Withdrawn

R2-2306391 MRO for Fast MCG Recovery, CPAC and SCGFailureInformation Samsung R&D Institute India discussion

R2-2306456 Discussion on CPAC failure report NTT DOCOMO, INC. discussion

### 7.13.4 SHR and SPCR

R2-2306752 Pre-meeting summary of 7.13.4 Huawei

=> intra-NR SHR and Inter-RAT SHR from LTE to NR will be deprioritized in RAN2 for R18.

=> SPR except the critical issues will not be further enhanced from this meeting until the end of R18.

=> Send LS RAN3 the above conclusion is acceptable for RAN3 (Huawei# 579).

Agreements:

SPR

1 For values of triggering conditions of SPR, Percentage based threshold variables for SHR (T310/T312/T304) can be reused for SPR is applied.

* **[At122][549][R18 SON/MDT] LS to RAN3 on SHR and SPCR (Huawei)**

 Scope: Capturing the above agreements and check RAN3’s view.

Intended outcome: Agreeable LS to RAN3

 Deadline: 23:24 UTC, Thursday

R2-2306846 [DRAFT] Reply LS on SHR and SPR

=> LS is approved in R2-2306896

R2-2306896 Reply LS on SHR and SPR

=> Approved

R2-2305324 Remaining issues on SPR vivo discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2305422 Discussion on SON for inter-RAT SHR Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305423 SPR and SHR related enhancements Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305484 Further discussion on inter-RAT SHR and SPR CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2305617 SON enhancement for SPR CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core Withdrawn

R2-2305667 SON/MDT enhancements for SHR and SPR Samsung R&D Institute India discussion

R2-2305704 Discussion on Successful Handover Report Lenovo discussion Rel-18

R2-2305705 SON enhancements for SPR Lenovo discussion Rel-18

R2-2306204 SON enhancement for SPR SHARP Corporation discussion

R2-2306246 Remaining issues on SHR and SPCR ZTE Corporation, Sanechips discussion Rel-18

R2-2306292 Discussion on SHR and SPR Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2306462 Discussion on SPR NTT DOCOMO, INC. discussion

## Summary of the report

Approved LS:

R2-2306896 Reply LS on SHR and SPR

=> Approved

R2-2306848 Reply LS on RACH enhancement

=> Approved

Agreed CRs:

R2-2305982 Correction to the setting of locationInfo in MeasResultSCG-Failure Ericsson discussion Rel-16 38.331 NR\_SON\_MDT-Core

=> CR is agreed

R2-2305983 Correction to the setting of locationInfo in MeasResultSCG-Failure Ericsson discussion Rel-17 38.331 NR\_SON\_MDT-Core

=> CR is agreed

R2-2306037 Correction on the release of logged measurement configuration as well as logged measurement information QUALCOMM Inc. CR Rel-16 38.331 16.12.0 4125 - F NR\_SON\_MDT-Core

=> CR is agreed

=> R17 CR provided in R2-230xxxx is also agreed.

R2-2305417 Correction to NR M3 measurement Nokia, Nokia Shanghai Bell CR Rel-17 37.320 17.3.0 0124 1 F NR\_ENDC\_SON\_MDT\_enh-Core R2-2302863

=> CR is agreed

R2-2306899 Correction to timeSCGFailure Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.4.0 4020 3 F NR\_ENDC\_SON\_MDT\_enh-Core

=> Agreed

R2-2305482 Correction on timeSinceCHO-Reconfig in TS 38.331 CATT CR Rel-17 38.331 17.4.0 4110 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> CR is Agreed

R2-2306847 Correction to the handling of RLF-Report after successful HO Ericsson CR Rel-17 38.331 17.4.0 4167 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> CR is agreed

R2-2306394 Correction on SCG failure scenario of MHI in TS 38.331 CATT CR Rel-17 38.331 17.4.0 4148 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> CR is agreed

R2-2306098 Stage-2 correction on the UL PDCP packet average delay Huawei, HiSilicon CR Rel-17 37.320 17.3.0 0126 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> CR is agreed.

Email discussion after the meeting:

* **[Post122][584][R18 SON/MDT] Open issues on fast MCG recovery (CMCC)**

 Scope: Discussion should focus on the proposals raised and not concluded in R2-2305779.

Intended outcome: Report

 Deadline: 23:24 UTC, Last Thursday before next RAN2 meeting

* **[Post122][555][R18 SON/MDT] Running CR for Rel-18 SON MRO (Ericsson)**

 Scope: Use R2-2305986 as baseline to continue the running 38.331CR for R18 SON MRO. If impact on 36.331 is identified, also provide corresponding running 36.331 CR.

Intended outcome: Running CR baselines for R18 SON MRO

 Deadline: 23:24 UTC, The last Friday before RAN2#123 starting

* **[Post122][556][R18 SON/MDT] Running CR for Rel-18 for logged MDT enhancements and NPN (Huawei)**

Scope: Use R2-2306753 and R2-2306754 as baselines to continue the running 38.331CR and 36.331 CR for R18 logged MDT enhancements and NPN.

 Intended outcome: Running CRs baseline for R18 logged MDT enhancements and NPN

 Deadline: 23:24 UTC, The last Friday before RAN2#123 starting

* **[Post122][557][R18 SON/MDT] Running CR for Rel-18 SON on RACH report (ZTE)**

Scope: Use R2-2306531 and R2-2306530 as baselines to continue the running 38.331CR and 36.331 CR for R18 SON on RACH report

 Intended outcome: Running CRs baseline for R18 SON on RACH report

 Deadline: 23:24 UTC, The last Friday before RAN2#123 starting

* **[Post122][590][R18 SON/MDT] Open issues of SON NR-U (Ericsson)**

 Scope: The above issues which marked as FFS.

Intended outcome: Report which is assumed to have the consensus on how to handle these issues.

 Deadline: 23:24 UTC, The last Friday before RAN2#123 starting