3GPP TSG-RAN WG2 Meeting #123 R2-2xxxxxx

Toulouse, France, August 21-25, 2023

Agenda Item:

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:

* [AT123][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).

### 5.4.1 General and stage-2 corrections

Including incoming LSs, TS 37.320 corrections

### 5.4.2 TS 38.314 corrections

### 5.4.3 RRC corrections

R2-2307783 Add offsetToCarrier parameter in RA Report CATT, CMCC CR Rel-16 38.331 16.13.0 4213 - F NR\_SON\_MDT-Core

R2-2307784 Add offsetToCarrier parameter in RA Report CATT, CMCC CR Rel-17 38.331 17.5.0 4214 - A NR\_SON\_MDT-Core

R2-2308417 Clarification to the setting of locationInfo in MeasResultSCG-Failure Ericsson CR Rel-16 38.331 16.13.0 4245 - F NR\_SON\_MDT-Core

R2-2308418 Clarification to the setting of locationInfo in MeasResultSCG-Failure Ericsson CR Rel-17 38.331 17.5.0 4246 - A NR\_SON\_MDT-Core

R2-2308419 PLMN check for the reconnectCellID in the RLF report Ericsson CR Rel-16 38.331 16.13.0 4247 - F NR\_SON\_MDT-Core

R2-2308420 PLMN check for the reconnectCellID in the RLF report Ericsson CR Rel-17 38.331 17.5.0 4248 - A NR\_SON\_MDT-Core

R2-2308556 Correction on UE behavior for RLF report upon detection of T312 expiry Qualcomm Incorporated CR Rel-16 38.331 16.13.0 4262 - F NR\_SON\_MDT-Core

R2-2308642 Discussion on location configuration for WLAN, BT and sensor for SON and MDT features Huawei, HiSilicon discussion Rel-16 NR\_SON\_MDT-Core

R2-2308671 Correction on storage of RLF information upon T312 expiry in PCell\_Opt 1 Samsung CR Rel-16 38.331 16.13.0 4269 - F NR\_SON\_MDT-Core

R2-2308674 Correction on storage of RLF information upon T312 expiry in PCell\_Opt 2 Samsung CR Rel-16 38.331 16.13.0 4270 - F NR\_SON\_MDT-Core

## 6.5 SON MDT

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

Tdoc Limitation: 2 tdocs

### 6.5.1 SON Corrections

R2-2307705 Correction on field sourcePCellId and targetPCellId in TS 38.331 CATT CR Rel-17 38.331 17.5.0 4207 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> Changes are agreed and will merged into big CR if you have…

R2-2307706 Correction on choCandidate and timeSinceCHO-Reconfig logging in SHR CATT CR Rel-17 38.331 17.5.0 4208 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> Not pursued

R2-2308421 Correction on logging RLM resources in the RLF report Ericsson, Qualcomm CR Rel-17 38.331 17.5.0 4249 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> The change is agreed and will be introduced from R18.

R2-2308422 Duppliacted PSCell ID logging in the RA report Ericsson CR Rel-17 38.331 17.5.0 4250 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> The change is agreed will be merged into big CR.

R2-2308554 NB-IoT UE location Info in RLF report Qualcomm Incorporated discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

=> Noted

R2-2308555 Correction on UE location information in NB-IoT RLF report Qualcomm Incorporated CR Rel-17 36.331 17.5.0 4946 - F NR\_ENDC\_SON\_MDT\_enh-Core  
=> Postponed and send LS to SA3 and SA5 for guidance first. (Qualcomm). CB on Friday.

R2-2308650 Correction on timeSinceCHO-Reconfig in TS 38.331 SHARP Corporation CR Rel-17 38.331 17.5.0 4266 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> The CR is not pursued

### 6.5.2 MDT Corrections

R2-2307068 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

R2-2307075 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

R2-2307282 Correction to LoggedMeasurementConfiguration type Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.5.0 4183 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> The change is agreed and will be merged into big CR.

R2-2308500 CR to 37320 on RLF report and CEF report ZTE Corporation, Sanechips CR Rel-17 37.320 17.4.0 0127 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> The 1st change will be updated in R2-xxxxxx. (ZTE). CB on Friday.

R2-2308643 Correction on delay definitions for split DRB Huawei, HiSilicon CR Rel-17 38.314 17.3.0 0029 - F NR\_ENDC\_SON\_MDT\_enh-Core

=> Postponed

R2-2308644 Discussion on NB-IoT UE location in RLF report Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

## 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

### 7.13.1 Organizational

Ls in Rapporteur input.

=> The following LSs are noted as withour presentation.

R2-2307022 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

R2-2307023 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

R2-2307024 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

R2-2307025 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

R2-2307030 LS on SHR and SPR (R3-233380; contact: Samsung) RAN3 LS in Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core To:RAN2

R2-2307069 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

=> The following running CRs are endorsed as baseline for further construction.

R2-2308428 LTE Running CR for Rel-18 SON MRO Ericsson CR Rel-17 36.331 17.5.0 4942 - B NR\_ENDC\_SON\_MDT\_enh2-Core Withdrawn

R2-2308429 Running CR for Rel-18 SON MRO Ericsson CR Rel-17 38.331 17.5.0 4251 - B NR\_ENDC\_SON\_MDT\_enh2-Core R2-2305986 Withdrawn

R2-2308458 LTE Running CR for Rel-18 SON MRO Ericsson CR Rel-18 36.331 17.5.0 4943 - B NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308459 Running CR for Rel-18 SON MRO Ericsson CR Rel-18 38.331 17.5.0 4253 - B NR\_ENDC\_SON\_MDT\_enh2-Core R2-2305986

R2-2308501 Running 36.331 CR for SN RACH report ZTE Corporation, Sanechips CR Rel-18 36.331 17.5.0 4944 - B NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308502 Running 38331 CR for SON on RACH report ZTE Corporation, Sanechips CR Rel-18 38.331 17.5.0 4256 - B NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308623 Running 38.331 CR for logged MDT enhancements and NPN Huawei, HiSilicon draftCR Rel-18 38.331 17.5.0 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308624 Running 36.331 CR for logged MDT enhancements Huawei, HiSilicon draftCR Rel-18 36.331 17.5.0 NR\_ENDC\_SON\_MDT\_enh2-Core

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

R2-2308240 MRO for inter-system handover for voice fallback Samsung discussion

=> Noted

R2-2308423 Discussion on voice fallback HO failure Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

=> Noted

### 7.13.3 MDT override

R2-2307411 Considerations on MDT override enhancement for E-UTRAN Beijing Xiaomi Software Tech discussion

=> Noted

R2-2308503 Consideration on MDT override remaining issues ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

=> EUTRA signalling based logged MDT report to NR is not supported.

=> No need to introduce assisting information to identify the RAT type of the signalling based MDT configuration/reports stored, when UE report availability of signalling based MDT reports/configuration to NR base station.

### 7.13.4 SHR and SPCR

R2-2307283 Reply LS proposal to R2-2307030/R3-233380 Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

=> Offline discussion and CB after lunch. (Nokia)

R2-2308801 Discussion on RAN2 impacts due to the LS R3-233380 Samsung, CMCC, Qualcomm discussion

R2-2308974 Summary from Huawei

Based on the analysis made in section 2, the following summary proposals have been made:

How to retrieve mobility information for SHR and SPR (RAN3 LS R2-2307030/R3-233380)

Proposal 1: For the solution “Configuration Information”, RAN2 to discuss issues from: Proposal 1 from R2-2308425, Observation 1 to 7 from R2-2308504.

Proposal 2: RAN2 confirms:

- The support of Pcell CGI

- explicit indication of the type of PSCell addition/change (i.e., PSCell addition, MN-initiated change or SN-initiated PSCell change) is needed.

SPR

P3, P9, P10 and P11 are about critical issues from the email rapporteur’s point of view, so they can be discussed.

Proposal 3a: UE clears SPR configurations if one of the following conditions is met:

- Initiate RRC connection re-establishment

- Initiate RRC connection resume

- Reception of SCG Release

Proposal 3b: RAN2 to discuss clearing of the SPR configurations for the following scenarios:

- Successful PSCellAddition or PSCellChange

- SCG failure due to PSCell addition/change (i.e. MR-DC release)

- Reconfiguration with synch on PCell

Proposal 9: RAN2 confirms for classic PSCell change, assisting information to indicate whether the PSCell change is MN/SN initiated is needed in the SPR configuration, so that UE can include whether PSCell change is MN/SN initiated in SPR.

Proposal 10: SPR reporting does not depend on whether SCG Reconfiguration complete is send via MN.

Proposal 11: In SPR, UE reports the measurements up to the moment random access is successfully completed.

Other proposals may be discussed if time allows:

Proposal 4: RAN2 to discuss which T310/T312 thresholds are to be monitored by the UE when MN and source SN configures the UE with SPR configuration, based on the following options

• UE only monitors the SPR configuration configured by the node that initiated the PSCell change

• UE monitors both SPR configurations

Proposal 5 UE logs C-RNTI of the MCG in the SPR. FFS on whether SCG related C-RNTI should be logged

Proposal 6 UE logs the CGI of the PCell in the SPR.

Proposal 7 UE logs the PCI and ARFCN of the source/target PSCells in the SPR in case the CGI is not available at the UE.

Proposal 8 UE logs the elapsed time between SPR generation and fetching the report by the network.

Proposal 12: RAN2 discusses a different mechanism (other than indicating it in RRCReconfigurationComplete message) to indicate SPR availability to the network.

Proposal 13: RAN2 discuss how the UE provides the location information:

• Based on the location configuration configured by node initiating the PSCell change

• Based on the location configuration of the node that its configured triggering SPR conditions are fulfilled, e.g., if T304 threshold is fulfilled UE logs location info based on the target SCG location configuration; if T310 threshold configured by the source SN is fulfilled the UE logs the location based on the location configuration of the source SN and so on.

Others

Proposal 14: If time allows, the following proposals can be discussed:

- P4, P5, P6 in R2-2308425

- P3.2 in R2-2307284

R2-2307284 Inter-RAT SHR and SPR related issues Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2307430 Remaining issues on SPR vivo discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2307707 Further discussion on SPR CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308015 Discussion on inter-RAT SHR from NR to LTE Lenovo discussion Rel-18

R2-2308016 SON enhancements for SPR Lenovo discussion Rel-18

R2-2308425 Discussion on inter-RAT SHR and SPR Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308496 SON/MDT enhancements for SHR and SPR Samsung discussion

R2-2308504 Consideration on SHR and SPR remaining issues ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308620 Remain issues on SPR SHARP Corporation discussion

R2-2308629 Discussion on voice fallback, SHR and SPR Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

### 7.13.5 SON for NR-U

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

R2-2308899 [Post122][590][R18 SON/MDT] Open issues of SON NR-U (Ericsson) Ericsson discussion

Agreements:

1 Introduce a new field that counts the number of preamble transmissions blocked by LBT for the last BWP selected for the RA procedure. FFS how to solve the issue of no preamble transmission attempts transmitted in a selected beam due to LBT blockage.

2 All the BWPs (including the first one) in which the UE experienced the consistent UL LBT failure, prior to the successful completion of the RA, are included in the RA-Report.

3 UE log the RA-InformationCommon in the RLF-Report when the RLF cause is lbtFailure and the UE was performing random access at the moment of RLF.

4 The UE logs the following information in the SHR:

a. The ra-InformationCommon including the new Rel.18 information (i.e. the number of UL LBT failures during HO, the info on the multiple BWPs in which consistent UL LBT failures was triggered), if T304 triggering conditions is fulfilled.

b. FFS: The RSSI measurements of the frequencies associated to the source/target/neighbouring cells, if the measRSSI-ReportConfig is configured for those frequencies.

5 BWPs information included in the RA-Report can be included, within the list of attempted BWP(s), in chronological order of BWP selection.

=> RAN2 agrees that nothing should be logged related to detected power/ED information.

1 FFS: BWP information should be included in the RLF-Report for all the BWPs in which the UE detected the consistent UL LBT failure, right before the RLF/HOF.

Proposal 7 RAN2 agrees to include the RSSI measurements of the frequency associated to the source PCell in the RLF report in case of HOF, if the measRSSI-ReportConfig is configured for such frequency.

Proposal 8 RAN2 agrees to include in the RLF-Report the available RSSI measurement results of the frequencies associated to the neighbouring cells, if the measRSSI-ReportConfig is configured for such frequencies.

Proposal 9 If Proposal 8 is not agreed, RAN2 to discuss if the UE logs in the RLF-Report the latest measured RSSI of the frequency associated to the target cell in case of HOF, if measRSSI-ReportConfig is configured for such frequency.

Proposal 10 UE logs lbt-FailureRecoveryConfig in the RLF-Report only upon re-establishment procedure failure.

Proposal 11 For the sake of progress and alignment with RAN3, RAN2 confines the discussion on the configuration index to the SHR and SPR discussion.

Proposal 15 Agree logging the LBT information of the source cell at the moment of performing HO. FFS the details (e.g., number of LBT failure or consistent LTB failure, etc.)

=> For the new triggering conditions for the SHR generation: No new triggering conditions needed.

R2-2307708 SON Enhancement for NR-U CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308017 Discussion on MRO for NR-U Lenovo discussion Rel-18

R2-2308325 SONMDT enhancement for NR-U CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308473 SON/MDT enhancements for NR-U Samsung discussion

R2-2308505 Consideration on NR-U related SON ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308625 Discussion on NR-U Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308897 Enhancements of SON reports for NR-U Ericsson discussion

### 7.13.6 RACH enhancement

R2-2308960 Summary of 7.13.6 RACH enhancement SONMDT (Nokia) Nokia discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

The following proposals are for agreement:

Proposal 1.1: At least the NSAG ID that is assigned to the S-NSSAI triggering the RA attempt and belongs to the NSAG ID of the feature combination used to select the RA configuration should be reported.

The following proposals are for further discussion:

Proposal 1.2: Further discuss whether the additional NSAG IDs to be included in the RA reports:

a) NSAG ID(s) that belong to the S-NSSAI(s) triggering the RA attempt and included in SIB1 (even if they were not used to select the RA configuration, e.g., due to belonging to lower priority NSAGs).

b) NSAG ID(s) that belong to the S-NSSAI(s) triggering the RA attempt (even if they are not included in SIB1).

c) NSAG ID(s) that do not belong to the RA attempt but have higher priority than applied NSAG-ID(s).

Proposal 2: RAN2 to discuss whether to include that S-NSSAI(s) that triggered the RA attempt in the RA report.

Proposal 3: RAN2 to discuss whether to include the priorities of the NSAG IDs either explicitly or implicitly.

Proposal 5.1: RAN2 to discuss the addition of an indication in RA report whether RA-SDT procedure is successful or not. Details of the indication and whether it is a single flag or further differentiation of the failure scenarios are needed are FFS.

Proposal 5.2: RAN2 to discuss whether the UE reports the buffered data volume when RA-SDT procedure is triggered.

R2-2307285 Discussion on RACH enhancement for SON Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2307408 Consideration on the SON enhancements for RACH report Beijing Xiaomi Software Tech discussion Rel-18

R2-2307709 RACH enhancement for SON CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2307797 Discussion on RACH enhancements ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2307825 RACH enhancements for slicing Apple discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308241 SON/MDT enhancements for RACH Samsung discussion

R2-2308291 Further Considerations on RACH Enhancement CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308427 RA report enhancement Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308626 Discussion on RACH enhancement Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308654 Further Discussion on RACH Partitioning for SON China Telecom discussion

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

R2-2309023 Summary of 7.13.7 SONMDT enhancements for NPN (CATT)

Based on summary of [1-10], following proposals are made for further discussion, and some proposals are only discussed under certain conditions.

For easy agreement

For Logged MDT

Proposal 4: Include SNPN ID (list) in the logged MDT area configuration following RAN3 agreement to align with the future NPN evolution.

Proposal 5: For the SNPN ID (list) in the logged MDT area configuration, limit to one SNPN ID in Release18.

Co-existence of NPN and PNs

Proposal 8: No new UE variables will be introduced for PNI-NPNs.

For others

Proposal 10: UE performs SNPN ID checking before transmitting the information for corresponding SON and MDT reports, upon the network requests for it.

For online discussion

For RLF/HOF report

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 whether and which to include UE CAG subscription information in the RLF/HOF report:

- CAG subscription statues indication;

- Allowed CAG list;

- CAG-only indication.

Proposal 3: RAN2 to confirm whether only to include nid in the RLF/HOF report to apply for multiple legacy fields (e.g. failedPCellId, previousPCellId, etc.).

For Logged MDT

Proposal 6: RAN2 to discuss whether to use a critical extension (i.e. AreaConfiguration-r18) to include all of configuring PNI-NPN only/PN only/ both cases to align with RAN3 BLCR.

Proposal 7: RAN2 to discuss whether to include the SNPN ID/CAG ID(s) in the logged MDT report.

For Co-existence of NPN and PNs

Proposal 9: RAN2 to discuss whether and how to address the loss issue of logged MDT report when UE switches between SNPN and PN and then send RAN2 decision to RAN3.

- Option 1: Introducing new variables for SNPNs;

- Option 2: Storing only the collected MDT measurements report (UE deletes the MDT configuration as legacy);

- Option 3：No enhancement is needed;

Discussed if time allows

Proposal 11: 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.

R2-2307286 Discussion on open NPN issues in SON/MDT Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2307409 Discussion on the SONMDT enhancement for NPN Beijing Xiaomi Software Tech discussion

R2-2307410 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

R2-2307431 Discussion on SON enhancements for NPN vivo discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2307710 SON and MDT Enhancement for NPN CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2307798 Discussion on SON-MDT support for NPN ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2307826 Out-of-coverage in NPN Apple discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308245 SON/MDT enhancements for NPN Samsung discussion

R2-2308426 SON Support for NPN Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308627 Discussion on SONMDT enhancements for NPN Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

### 7.13.8 Other

R2-2308326 Summary of [Post122][584][R18 SON/MDT] Open issues on fast MCG recovery CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

Agreements:

1 UE reports the elapsed T316 between the transmission of MCGFailureInformation and receiving RRC reconfiguration or RRC release message.

2 No T316 related triggering threshold is introduced.

3 Reuse existing RLF report to capture fast MCG recovery related information.

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

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

R2-2309024 Summary of 7.13.8 Other ZTE Corporation, Sanechips

## Fast MCG recovery

**Potential easy agreement**

**Proposal 1: RAN2 confirms the “SCG deactivation during fast MCG recovery” is not a valid scenario, therefore would be considered in fast MCG MRO.**

**Proposal 8: UE logs the new information for fast MCG link recovery optimziation, only when AS security has been activated.**

**Discuss online:**

**Proposal 2: RAN2 discuss which of below two interpretations is correct for scenario f1:**

* **Interpretation 1: SCG fails or is deactivated before initiating the MCG Failure Information procedure;**
* **Interpretation 2: SCG fails or is deactivated before the time UE RRC submits the MCGFailureInformation to lower layer for transmission.**

**Proposal 3:RAN2 discuss whether to include elapse time of T316 to SCG fails in RLF report.**

**Proposal 4: Include below fast MCG failure causes in RLF report:**

* **T316 expiry,**
* **SCG failure, and**
* **SCG was deactivated or other cases where SCG is not available**

**Proposal 5: RAN2 discuss which of below information is needed to be included in RLF report when SCG failure during fast MCG recovery:**

1. **PSCell ID of failed SN (1)**
2. **SCG failure cause: t310-Expiry, randomAccessProblem, rlc-MaxNumRetx (3)**
3. **Indication on which failure happens first (2)**
4. **Time between two failure (3)**

## CPAC MRO

**Potential easy agreement**

**Proposal 7: For CPAC MRO, UE logs the below information in SCGFailureInformation:**

* **the type of the first triggered CPAC event if multiple events are configured**
* **the time duration between the two triggered CPAC events if multiple events are configured**

**Discuss online**

**Proposal 8: For CPAC MRO, RAN2 discuss whether to include below information in SCGFailureInformation:**

* **Explicit indication to differentiate CAPC from conventional SCG failure (e.g., CPA, CPC)**

**Proposal 9: For CPAC MRO, RAN2 discuss which of below time information is included in SCGFailureInformation:**

* **The time elapsed between the CPAC execution towards the target PSCell and the corresponding latest CPAC configuration is received for the target PSCell (4)**
* **The time elapsed since the CPAC execution towards the target PSCell until the SCG failure (2)**
* **None (1)**

**Proposal 10: For CPAC MRO, RAN2 discuss which of below measurement information is included in SCGFailureInformation:**

* **latest radio measurements of neighbour cell(s) if available, reusing existing fields. (2)**
* **Indication whether neighboring cell is a candidate cells (2)**
* **Source PSCell info (cell ID, measurement result) if available, reusing existing fields. (1)**
* **Target PScell info (cell ID, measurement result) if available, reusing existing fields. (1)**
* **None (1)**

## MHI for SCG Activation/Deactivation

**Discuss online**

**Proposal 11: RAN2 discuss whether to include in MHI the information of SCG activation/deactivation, e.g., the time of SCG activation, or percentage of time that SCG activation.**

## UE capability

**Discuss online**

**Proposal 12: RAN2 continue offline to collect companies’ views on UE capabilities based on the table summarized below:**

**Table 1: Summary on UE capabilities for R18 SONMDT features**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Features** | **UE capability** | **Definition** | **Mandatory/ Optional** | **Diff** | **Note** |
| MRO for MR-DC SCG failure |  |  |  |  | RAN2 has not identified impacts due to this feature |
| MRO for voice fallback | 1 bit | Whether the UE supports an explicit indication in RLF-report when mobility from NR fails and due to voice fallback. | Optional without signalling | No |  |
| CPAC |  |  |  |  | RAN2 has not identified impacts due to this feature |
| SPR | 1 bit | Whether the UE supports the storage and delivery of Successful Handover Report for PSCell addition/change upon request from the network. | Optional with signalling | No |  |
| Inter-RAT SHR | 1 bit | Whether the UE supports the storage and delivery of Successful Handover Report for Handover from NR to E-UTRA, upon request from the network. | Optional with signalling | No |  |
| NPN | Defined per feature | Whether the UE supports the inclusion of NPN ID in SON/MDT procedures, upon request from the network. | For SON:  Per feature, optional without signalling  Logged MDT:  Optional with signalling | No |  |
| RACH report | 1 bit | Whether the UE supports the storage and delivery of RACH partitioning related information via RACH report procedure, upon request from the network. | Optional with signalling | No |  |
| 1 bit | (for LTE) Whether the UE supports NR RACH report in LTE, upon request from the network. | Optional with signalling |  |  |
| Fast MCG recovery | 1 bit | Whether the UE supports RLF-Report for Fast MCG recovery. | Optional without signalling | No |  |
| NR-U | Defined per feature | Whether the UE supports to report NR-U related information in SON, upon request from the network. | Per feature, optional with/without signalling | No |  |
| MDT override | 1 bit | (for LTE) Whether the UE supports the override protection of the signalling based logged measurements configured in E-UTRA when going to NR. | Optional with signalling | No |  |

R2-2307287 MRO enhancements for Fast MCG recovery and for MR-DC CPAC Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2307288 Improvement of handling of timeConnFailure Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2307432 Discussion on MRO for CPAC vivo discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2307679 Discussion on CPAC failure report NTT DOCOMO, INC. discussion Rel-18

R2-2307680 Discussion on fast MCG recovery failure NTT DOCOMO, INC. discussion Rel-18

R2-2307711 Discussion on Fast MCG recovery MRO Enhancement CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2307712 Discussion on MHI Enhancement for SCG Deactivation/Activation CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308018 SON enhancements for CPAC Lenovo discussion Rel-18

R2-2308019 MRO for fast MCG link recovery Lenovo discussion Rel-18

R2-2308327 SON MDT enhancement for MR-DC CPAC CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308328 MHI Enhancement for SCG Activation/Deactivation CMCC, Ericsson, CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308424 Discussion on Fast MCG recovery and SCG failure optimization Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308490 Fast MCG Link Recovery Optimization Samsung discussion

R2-2308506 Consideration on other SON issues ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308621 Discussion on MRO for CPAC SHARP Corporation discussion

R2-2308622 MRO for fast MCG recovery SHARP Corporation discussion

R2-2308628 Discussion on Fast MCG recovery and CPAC Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2308630 Discussion on UE capability Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core