**3GPP TSG RAN Meeting #101 RP-23xxxx**

**Bangalore, India, September 11-15, 2023**

## Status Report to TSG

**Agenda item:** 9.3.2.1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WI / SI Name** | Further NR Mobility Enhancements | | | | |
| included in this status report | Study Item:  No | Core part:  Yes | Performance part:  Yes | | Testing part:  No |
| **Acronym** | NR\_mob\_enh2 | | | | |
| **Unique ID** | 940098 | | | | |
| **TSG Tdoc of latest approved WI/SI description (if any)** | RP-231475 | | | | |
| **Target Completion Date**  **(indicate if changed)** | Study Item:  N/A | Core part: 12/2023 | Performance part: 06/2024 | Testing part: N/A | |
| **Overall Completion level** | Study Item:  N/A | Core part:  80% | Performance Part:  0% | Testing part: N/A | |

Note: Overall completion level percentage numbers should use one of the colors below:

* xx%: Normal progress, no RAN plenary action needed
* xx%: Progress behind schedule, may need RAN plenary intervention. If so, SR should clearly define requested action
* xx%: Progress critically behind, RAN plenary shall intervene. SR should define requested action

**Source:**

|  |  |  |
| --- | --- | --- |
| **Leading WG** | | RAN WG2 |
| **Rapporteur** | **Name** | Li-Chuan Tseng |
| **Company** | MediaTek Inc. |
| **Email** | li-chuan.tseng@mediatek.com |

## 1 Work plan related evaluation

|  |  |
| --- | --- |
| **Do you want to modify the time budget for this WI/SI compared to what was endorsed at the last RAN meeting?** | No |

*If you answered No: Then please remove the Excel file from the zip file of this status report.*

*If you answered Yes: Then please fill out the attached Excel template to request a modification of the time budgets for your WI /SI. The Excel table has to be filled out for all affected RAN WGs and up to the target date of the WI/SI. The basis are the endorsed time budgets of the last RAN meeting. Please highlight all changes of the values.  
 One time unit (TU) corresponds to ~ 2 hours in the meeting.  
 If this status report covers a WI with Core and Performance part, then please have one line for each in the attached Excel table.  
 Note: If no Excel table is attached, then this means no time budget change.*

**Additional explanations/motivations for the time budget changes in the attached Excel table:**

## 2. Detailed progress in RAN WGs since last TSG meeting (for all involved WGs)

NOTE: Agreements and Open issues impacted cross-TSG aspects shall be explicitly highlighted

## 2.1 RAN1

#### 2.1.1 Agreements

**RAN1#114 (August 2023)**

L1 enhancements for inter-cell beam management

**Agreement**

Confirm the following working assumption achieved in RAN-112bis-e

Agreement

On top the confirmed working assumption, on the presence of beam indication within cell switch command, at least for scenario 2 following is supported:

* A field to indicate 1 joint or 1 pair of UL and DL unified TCI State index for the target cell field is always present in the cell switch command.
* FFS UE behaviour for the beam indication field for the RACH-based handover scenario after cell switch command

**Conclusion**

In R18 LTM, there is no consensus to support triggering of aperiodic SRS transmission to the target cell in the cell switch command.

**Agreement**

In R18 LTM, on the QCL source of the TCI state before/during the cell switch command,

* SSB or TRS can be configured in a TCI state for the candidate cell(s) before/during cell switch command
  + Whether the TRS can be used for the candidate cell(s) before/during cell switch command is up to UE capability

Agreement

* + In Rel-18 LTM, only CD-SSB is supported for L1 intra- and inter-frequency measurement

Agreement

Draft LS 2308447 is endorsed in principle by revising

According to RAN1’s agreement in RAN1#112bis meeting, M x L beams are reported in a single report instance. Beam selection is performed across the L cells from configured cells, i.e., M beams for each of the L cells. According to the conclusion from RAN1#113, how to select the L cells is up to UE. Therefore, UE reports one or a subset of measured LTM candidate cell(s) in a report (option b in RAN2’s agreement). If L cells are configured for measurement, the UE would report all L configured cells.

To

According to RAN1’s agreement in RAN1#112bis meeting, M x L beams are reported in a single report instance. UE reports beams of L cells from configured cells with M beams for each of the L cells. According to the conclusion from RAN1#113, how to select the L cells is up to UE.

Agreement

Final LS 2308465 is endorsed.

**Agreement**

* For the beam selection for SSB based L1-RSRP measurement report,
  + For the value of M, L
    - the RRC configured candidate values are:
      * M = 1, 2, 3, 4
      * L = 1, 2, 3, 4
    - Note: the maximum value of M\*L and combination of M and L is up to UE capability
* Note: the common understanding is that L=1 with configuration of inclusion of serving cell is not a typical case.
* No need to confirm the corresponding working assumption (made in RAN1#113).

**Agreement**

* Send an LS to RAN2,3,4 on the RAN1 agreements in this meeting
  + All agreements in AI 9.10.1 and 9.10.2 in RAN1#114 are included

Agreement

Draft LS R1-2308624 is endorsed in principle.

Agreement

Final LS R1-2308625 is endorsed.

Agreement

* TCI state activation by MAC CE before cell switch command for one or more than one candidate cells is allowed

Agreement

* Absolute value and differential values are used for L1-RSRP reporting:
  + For absolute L1-RSRP, the L1-RSRP value is quantized to a 7-bit value in the range [-140, -44] dBm with 1dB step size
  + For differential L1-RSRP, the L1-RSRP value is quantized to a 4-bit value where the differential L1-RSRP value is computed with 2 dB step size from reference L1-RSRP value

Agreement

SSBRI among configured candidate cells is included for each L1-RSRP report

* The bit size of SSBRI is where is the number of configured SSBs in the corresponding resource set for the report
* The following format is used for reporting

|  |  |
| --- | --- |
| **CSI report number** | **CSI fields** |
| CSI report #n | SSBRI #1 as in Table 6.3.1.1.2-6, if reported |
| SSBRI #2 as in Table 6.3.1.1.2-6, if reported |
| : |
| SSBRI #L\*M as in Table 6.3.1.1.2-6, if reported |
| RSRP #1 as in Table 6.3.1.1.2-6, if reported |
| Differential RSRP #2 as in Table 6.3.1.1.2-6, if reported |
| : |
| Differential RSRP #L\*M as in Table 6.3.1.1.2-6, if reported |

Timing advance management to reduce latency

Agreement

For the power control of PDCCH-ordered CFRA in LTM, the UE can maintain only one power ramping counter

**Agreement**

For the power control of PDCCH-ordered CFRA in LTM, power-ramping counter is reset at least when UE receives a PDCCH order indicating the initial transmission of PRACH

**Agreement**

when a PDCCH order is sent for a candidate cell,

* The bit size of N in DCI format 1\_0 for cell indicator is determined by the number (e.g., C) of configured candidate cells with RACH configuration provided for early TA acquisition, downselect one from the following alternatives.
  + - Alt 1: N=
    - Alt 2: N= (update the equation with (C+1))
      * + The number of cells used to calculate the bit width is the number of candidate cells with RACH configuration provided for early TA acquisition + 1 (serving cell)

**Agreement**

For the power control of PDCCH-ordered CFRA in LTM,

* When a UE receives a PDCCH order indicating a re-transmission of PRACH with the same associated SSB and same candidate cell as the previous PRACH, the counter is increased by 1.
* In addition to case 1, power-ramping counter is reset in the following cases:
  + Case 2: The candidate cell indicated in the PDCCH order, indicating retransmission, is different from that indicated in the last PDCCH order.

Note: the initial counter is 0 before receiving any PDCCH order.

**Agreement**

when a PDCCH order is sent for a candidate cell,

* The bit size of N in DCI format 1\_0 for cell indicator is determined by the number (e.g., C) of configured candidate cells with RACH configuration provided for early TA acquisition, the following alternative is supported:
  + - Alt 2: N=
* The number of cells used to calculate the bit width is the number of candidate cells with RACH configuration provided for early TA acquisition + 1 (serving cell)

**Agreement**

When the UE does not support simultaneous/parallel transmissions of PRACH in candidate cell and UL channels and signals in serving cell, support

* + serving cell UL TX is dropped.

**Agreement**

If the UE supports simultaneous/parallel transmissions of PRACH in candidate cell and UL channels and signals in serving cell in the same frequency range, support:

* A PRACH transmission to a LTM candidate cell has the highest priority for power allocation

Note: up to UE whether performs power scale-down or drop of UL transmission with lower priority when UL transmission power is insufficient.

#### 2.1.2 Remaining Open issues

RAN1 has concluded their works in this meeting. Any issues found later will be handled in RAN1 maintenance phase.

## 2.2 RAN2

#### 2.2.1 Agreements

**RAN2#123 (August 2023)**

* RAN2 understand that there is no impact on RAN2 TS wrt beam application time, and RAN2 understands further that a requirement, if needed, would be specified by RAN4.
* Remove “without RAN2 involvement” in two places
* With this change the LS out is approved in [R2-2309250](file:///C:\Users\mtk65284\Documents\3GPP\tsg_ran\WG2_RL2\RAN2\Docs\R2-2309250.zip)
* Will add early synch to Stage-2 at this meeting
* Endorsed [R2-2308435](file:///C:\Users\mtk65284\Documents\3GPP\tsg_ran\WG2_RL2\RAN2\Docs\R2-2308435.zip) RRC running CR for LTM
* Endorsed (as baseline for further change) [R2-2308040](file:///C:\Users\mtk65284\Documents\3GPP\tsg_ran\WG2_RL2\RAN2\Docs\R2-2308040.zip) RRC running CR for subsequent CPAC in NR-DC
* Endorsed (as baseline for further change) [R2-2307207](file:///C:\Users\mtk65284\Documents\3GPP\tsg_ran\WG2_RL2\RAN2\Docs\R2-2307207.zip) RRC Running CR for CHO with candidate SCGs

L1/L2-based inter-cell mobility

* LS out is approved in [R2-2309251](file:///C:\Users\mtk65284\Documents\3GPP\tsg_ran\WG2_RL2\RAN2\Docs\R2-2309251.zip)
* 1b) The case of PCell change (MCG) by LTM, without SCG, is supported (If there is an SCG configuration it is released at LTM execution).
* 2b) The case of SCG LTM, without MN involvement is supported
* as a working assumption (can be revisited e.g. at the last meeting), it is assumed that other MCG/SCG cases are not supported.
* Define the association between CG occasion and beam in RRC and specify that the UE uses a CG occasion associated with the indicated beam in MAC
* Observation: In cases for which it is desired that CG used for LTM is not used further once the UE has made the cell its new serving cell, it is assumed that the network could release Type1 CG resource on LTM completion (existing functionality)
* Before RACH-less LTM procedure completion, the UE shall not trigger RACH (when the UE has no valid PUCCH resource for triggered SRs), as in LTE RACH-less.
* RAN2 assumes for RACH-less LTM, the UE determines successful reception of its first UL data based on receiving a PDCCH addressing the UE’s C-RNTI in the target cell scheduling a new transmission after the first UL data, (FFS if specified contents should be transmitted with this transmission, e.g. as LTE MAC CE).
* All the RRC configurations related to early RACH are specific per LTM candidate cell and signalled separately from the candidate cell configuration (i.e. LTM Candidate configuration).
* The early RACH procedure shares a same MAC entity with the legacy RACH procedure. (e.g., no extra MAC entity is needed for early RACH)
* It is up to UE implementation to handle the RACH initiation collisions where the early RACH is getting involved. No specification change can be foreseen.
* R2 assumes for counting the power ramping step for early RACH, Reuse PREAMBLE\_POWER\_RAMPING\_COUNTER
* FFS if UE transmits the preamble without the power ramping upon reception of PDCCH order with retransmission indication if preamble transmission encounter the LBT failure.
* P8: Confirm that the RACH procedure toward a candidate cell is considered as complete once the preamble transmission is instructed to the lower layer.
* automatic retransmission by timer with CG (similar to NR-U, SDT) is supported for the first UL data transmission with CG.
* [R2-2308434](file:///C:\Users\mtk65284\Documents\3GPP\tsg_ran\WG2_RL2\RAN2\Docs\R2-2308434.zip)[Post122][055][Mob18] Discussion on RRC open issues list for LTM Ericsson
* P11: From TS point of view, R2 assumes that first and subsequent LTM can be covered by same TS contents (if exceptions are needed, can be discussed case by case)
* P5 P7 discussion offline
* P12 P13 don’t agree now
* (Rest of proposal are agreed, as below)
* Any cross-feature interaction with LTM will be considered at the end of Rel-18.
* SCell(s) can be added/modified/released within an LTM candidate cell configuration.
* In case of a reconfiguration failure on one or more LTM related configurations, legacy UE behaviour applies.
* The legacy full configuration procedure (including the fullConfig flag) is not re-used for LTM.
* *ServingCellConfigCommon* shall be part of the complete LTM candidate cell configuration that the UE applies when performing an LTM cell switch procedure.
* RAN2 confirm that an LTM cell switch procedure should not be triggered while an MCG failure recovery procedure is ongoing.
* The reconfiguration with sync procedure is tentatively not re-used for LTM but the final decision on this is left to RRC running CR implementation.
* The sending of *RRCReconfigurationComplete* message for LTM is tentatively done in section 5.3.5.3 but the final decision on this is left to RRC running CR implementation.
* Upon an LTM cell switch, the UE releases the radio bearer related configuration. Is up to network to provide the radio bearer configuration either within the reference configuration or within the LTM candidate cell configuration.
* Upon an LTM cell switch, the UE shall release the radio bearer that are part of the current UE configuration but not part of the target LTM candidate cell configuration.
* Legacy T304 timer is used to supervision the LTM cell switch procedure. FFS whether new values for timer T304 are needed.
* Upon an LTM cell switch failure (i.e., supervision timer expiry) or RLF, fast recovery similar to CHO:

a) UE performs cell selection.

b) If selected cell is an LTM candidate cell, UE performs RACH-based LTM cell switch on the selected cell (network-controlled).

c) If selected cell is not an LTM candidate cell, UE transmits RRC re-establishment request.

* UE shall release all LTM-related configurations upon going to RRC\_IDLE.
* Upon RRC re-establishment, the UE handles the LTM related configuration similar to the CHO configurations.
* For the handling of LTM-related configurations in RRC\_INACTIVE the UE applies the same principles as CHO (= conditions/triggers to release configurations).
* A UE capability to indicate the support of the reference configuration is introduced. If reference configuration is not supported then complete candidate configurations has to be used.
* BWP ID is not in the LTM cell switch MAC CE, but only based on the RRC configuration.
* Scell activation state is not in the LTM cell switch MAC CE, but only based on the RRC configuration
* Will have CFRA resource related information field in LTM cell switch MAC CE (unless serious issues are found).
* Not introduce UL grant related information field in LTM cell switch MAC CE.
* Not introduce C-RNTI information field in LTM cell switch MAC CE.
* Not introduce LTM supervisor timer value field in LTM cell switch MAC CE.
* The size of “Target Configuration ID” field in the LTM Command MAC CE is 3-bits, and the maximum number of LTM candidate cells in RRC configuration is 8.
* Inform R1 by LS
* R1 LS by short email discussion (HW)
* No need to specify processing order
* A BSR should be triggered in the target cell right after cell switch (as for legacy handover). It is assumed that no spec impact is needed.
* The UE will do RACH-less when:

- TA value is provided in the cell switch MAC CE (already agreed, TA=0 is assumed to be covered by this)

- When the UE shall apply the same TA value as the source (already agreed) FFS how the UE knows this.

NR-DC with selective activation of cell groups

* For subsequent CPAC it is useful to support use of A3 A5
* A3 A5 is supported with SN-initiated subsequent CPAC
* UE autonomously releases the subsequent CPAC configurations in the following cases: upon RRC re-establishment and RRC release (to RRC\_IDLE and/or RRC\_INACTIVE)
* No need for an optimized single-indication-release of CPAC configuration. Can rely on explicit release for other cases.
* Will support the SA3 solution, i.e. update of Sk-counter at inter-SN-mobility, based on pre-configured multiple Sk-counter. UE need to know when Sk counter need to change.
* Detailed solution discussed in long Post-meeting email discussion
* Remove “in an e-mail discussion”, with this change the LS is approved in R2-2309268

CHO with target SCG / candidate SCG(s)

* UE does not remove the configuration for CHO including target MCG and candidate SCG configuration automatically when SCG is to be released.
* R2 assumes Source MN initiates the preparation of the R18 CHO with candidate SCG(s), e.g., S-MN tells the T-MN whether it is allowed to configure candidate SCG(s). FFS the signalling details.
* candidate MN recommends the candidate PSCells to candidate SN (for CHO with MN-initiated CPC).
* CHO recovery details to handle the additions brought by this feature is FFS
* R2 assumes for this R18 feature that the UE does not need to continue conditional reconfiguration evaluation for CHO with Candidate SCG(s) upon initiating SCG failure information procedure
* Recommendation of the candidate PSCells can be based on measurement results.
* R2 assumes for this R18 feature that the evaluation of the execution conditions for CHO with Candidate SCG(s) do not need to continue once PSCell change is triggered.
* maxNrofCondCells = max number of conditional configurations that the UE can store (is assumed to be a memory limitation), value FFS
* selectedCondRRCReconfig-r17 is not reused to indicate the selected target SCG to the target MN, i.e., UE indicates physCellId and ARFCN-ValueNR of the selected PSCell to target MN.
* condEventA3 or condEventA5 is not used for the execution conditions for candidate PSCells (can be revisited later if strong justification can be provided)
* condEvent A4 to be used for current PSCell (i.e., in case it is configured as candidate PSCell for evaluation) for CHO with candidate SCGs case.

#### 2.2.2 Remaining Open issues

L1/L2 based inter-cell mobility

* RAN2 assumes for RACH-less LTM, the UE determines successful reception of its first UL data based on receiving a PDCCH addressing the UE’s C-RNTI in the target cell scheduling a new transmission after the first UL data, FFS if specified contents should be transmitted with this transmission, e.g. as LTE MAC CE.
* FFS if UE transmits the preamble without the power ramping upon reception of PDCCH order with retransmission indication if preamble transmission encounter the LBT failure.
* Security concerns for LTM when using L1/L2 signalling in L1 measurement report or LTM trigger command.
* FFS further optimization if configured grant can be used for RACH-less LTM
* For RRC reconfiguration with usage of reference configuration
  + FFS if more than RLC PDCP should be kept and how much of “replacing” need to be specified
  + FFS how to make sure the procedures work in case the LTM candidate configuration is a complete configuration.
* Details of stage-3 RRC issues
  + How to apply candidate delta configuration on top of reference configuration (new procedure or reuse delta configuration, Need code meaning updates)
  + Whether to reuse *reconfigurationWithSync*
  + How to describe the sending of *RRCReconfigurationComplete*
  + RRC configurations for L1 measurement and reporting, TCI state, and TA management, following RAN1 RRC parameter list
* Details of MAC CEs for TCI state activation and LTM command

NR-DC with selective activation of cell groups

* How many subsequent conditional changes are targeted, and potential impacts.
* Reference SCG configuration (Optionality FFS). Assume as for LTM Reference configuration may be empty.
  + FFS whether MCG configuration is included.
  + FFS RRC model for the reference configuration.
* Stage-3 RRC details
* Stage-2 signaling details
* Detailed aspects of the security solution

CHO with target SCG / candidate SCG(s)

* CHO recovery details to handle the additions brought by this feature is FFS
* Value FFS for max number of conditional configurations that the UE can store

## 2.3 RAN3

#### 2.3.1 Agreements

**RAN3 #121 (August 2023)**

[R3-233743](file:///D:\会议硬盘\TSGR3_121\Docs\R3-233743.zip), (BLCR to 38.401) for L1L2Mob (Huawei, Ericsson, Nokia, Nokia Shanghai Bell), Endorsed as BL CR

[R3-233759](file:///D:\会议硬盘\TSGR3_121\Docs\R3-233759.zip), (BL CR to TS 38.423) Introduction of SCG Selective Activation (Huawei), Endorsed as BL CR

[R3-233766](file:///D:\会议硬盘\TSGR3_121\Docs\R3-233766.zip), (BLCR to 38.473) Additions for L1/L2 triggered mobility (Ericsson, Huawei, Nokia, Nokia Shanghai Bell, Intel Corporation), Endorsed as BL CR

[R3-234563](file:///D:\2_3GPP%20Meetings\202309%20RAN%20101\Inbox\R3-234563.zip), (BLCR to 37.340) Introduction of CHO with SCG(s) (CATT), Endorsed as BL CR

Signalling support for L1/L2 based inter-cell mobility:

* R3-234758, (TP for L1L2Mob BLCR for TS 38.401): Inter-DU LTM procedure update (Huawei, Nokia, Nokia Shanghai Bell, ZTE, LG Electronics, Ericsson, CMCC), Agreed.
* R3-234757 TP for LTM BL CR to TS 38.401 (ZTE, Nokia, Nokia Shanghai Bell, LG Electronics, Huawei, Ericsson, CMCC), Agreed.
* [R3-234760](file:///D:\2_3GPP%20Meetings\202309%20RAN%20101\Inbox\R3-234760.zip), (TP for LTM BL CR to TS 38.473) F1AP impacts for LTM (Ericsson, Nokia, Nokia Shanghai Bell, ZTE, Huawei, Lenovo, LG Electronics, CMCC), Agreed.
* R3-234759, (TP to TS 38.473 on LTM) co-existence between LTM and L3 mobility (NEC, Nokia, Nokia Shanghai Bell, Huawei, Lenovo, LG Electronics, ZTE, Google, Samsung, CMCC), Agreed.
* Turn the WA to agreement that a new Class-2 procedure is introduced to notify gNB-CU about the LTM cell switch.
* The gNB-CU uses the UE Context Setup procedure to collect the TCI state configurations of candidate cells in LTM configuration phase for inter-DU LTM.
* After LTM configuration, the gNB-CU indicates the collected TCI state configurations of candidate cells to the source gNB-DU and all candidate DUs via UE Context Modification procedure for the UE.
* The LTM Cell Change Notification procedure is reused to transfer the selected beam from the source gNB-DU to the target gNB-DU via gNB-CU.
* RAN3 prioritizes specifying support for early TA acquisition “without RAR” and mark the method “with RAR” as open issue.
* CU shall send the TA value to the source DU.
* For inter-gNB-DU LTM, the RS configuration needs to be sent from C-DU to S-DU via CU.
* Agree to add the RS configuration in UE Context Setup/Modification in stage2 and stage3.
* The gNB-CU uses the UE Context Modification Request procedure to transfer the RS configuration of candidate cells to the source gNB-DU and/or other candidate gNB-DUs to generates the L1 configurations.
* In inter-DU LTM, the gNB-CU provides the CFRA resource received from the candidate gNB-DU to the source gNB-DU via UE Context Modification procedure.
* Working assumption: the CFRA resources could be shared only among the UEs in a single gNB-DU to avoid the RACH access conflict between UEs from different DU. need align with RAN2.
* WA: Indicate the source gNB-DU ID when request the CFRA resources to the candidate DU.
* WA: to introduce (2)new class 2 non-UE associated F1 signalings to deliver the TA information from the candidate gNB-DU to the source gNB-DU via gNB-CU.
* How the source DU detect failure of TA info acquisition is up to implementation (eg., based on timer in source DU).
* Source DU is in charge of checking the TA validity.
* In case that L3 handover is triggered earlier than LTM (the gNB-DU receives the L3 handover command before LTM is triggered), L3 handover has high priority.
* In case that LTM is triggered earlier than L3 (the gNB-CU receives the LTM notify message from gNB-DU before L3 handover is triggered), LTM has high priority,
* WA: In case that LTM and L3 handover are triggered almost simultaneously (cross signaling on F1). The (source) gNB-DU fails the L3 handover by responding with UE Context Modification Failure message with proper cause meaning LTM has high priority.

Support CHO in NR-DC

* [R3-234631](file:///D:\会议硬盘\TSGR3_121\Docs\R3-233834.zip), (TP to TS37340, CHO with NRDC] Avoid multiple data forwarding paths (Nokia, Nokia Shanghai Bell, Samsung, LG Electronics, ZTE), Agreed
* [R3-234632](file:///D:\2_3GPP%20Meetings\202309%20RAN%20101\Inbox\R3-234632.zip), (TP to TS 37.340 BC CR on CHO with SCG) Support of CHO with multiple SCGs (ZTE, Samsung, Huawei, LG Electronics, Ericsson, Nokia, Nokia Shanghai), Agreed
* R3-234761, (TP to TS 38.423 BL CR on CHO with SCG) Support of CHO with multiple SCGs (Ericsson, Nokia, Nokia Shanghai Bell, LG Electronics, ZTE, Samsung, CATT), Agreed
* R3-234734, (TP to TS 38.423 BC CR on CHO with SCG) Avoid multiple data forwarding (Huawei, LG Electronics, Samsung, ZTE, Ericsson), Agreed
* Including existing *RRC Config Indication* IE in XnAP HANDOVER REQUEST ACKNOWLEDGE message.
* For CHO with multiple SCGs among different T-SNs, include list of info of multiple SCGs in Handover Request Ack message, e.g., PDU Session admission results, data forwarding addresses and list of prepared PSCells for each prepared T-SN. This agreement can be revisited after RAN2 agreement.
* The initiating node provides “maximum number of Conditional reconfigurations to prepare” in Rel-17, “(maximum) number of Conditional reconfigurations to prepare” could be indicated by the
  + S-MN to T-MN within the Handover Request message,
  + T-MN to T-SN within the SN Addition Request message. The existing IE “max num of PSCells to prepare” may be enough.
* The PDU session admission result in Handover Request Acknowledge message is per T-SN.
* The Tunnel granularity in Handover Request Acknowledge message is per T-SN.
* Enhancement of Handover SUCCESS message considering early data forwarding, to inform S-SN which PSCells/T-SN in the HO Req ACK is selected in the HO Req ACK message. T-SN ID could be enough.
* The target MN needs to know the direct path availability of S-SN<-> T-SN(existing IE) and that of S-MN<->T-SN(new IE or codepoint) in order to have correct behavior for data forwarding handling.
* The target MN needs to know whether a bearer is S-SN terminated or S-MN terminated (the target MN knows this from the RRC container).
* Introduce a new IE or a new codepoint in SN Additional Request ACK to indicate to the target MN about the direct path availability between target SN and source MN.

Selective activation of cell groups

* R3-234708, (Subsequent CPAC BL CR to TS 37.340) Introduction of subsequent CPAC (ZTE, China Telecom, Huawei, China Unicom, LG Electronics, Samsung, Ericsson), Endorsed as BL CR
* [R3-234764](file:///D:\2_3GPP%20Meetings\202309%20RAN%20101\Inbox\R3-234764.zip), (TP for TS 38.423 BLCR) Correction on Subsequent CPAC naming (Lenovo, ZTE, Ericsson, Nokia), Agreed
* RAN3 follows RAN2 and uses the same name “subsequent CPAC” or “S-CPAC” for the selective activation.
* The information of other candidate PSCells in other candidate target SNs should be provided in the SN Addition Request message/SN Modification Request message from the MN to the candidate target SNs, if RAN2 agrees.
* After CPC execution from the source SN to other SN, the MN should inform the source SN of the CPC execution and start late data forwarding.
* - Case 1: if the source SN is configured as a candidate SN for subsequent CPAC, the source SN needs to be informed.
* - Case 2: if the source SN is not configured as a candidate SN for subsequent CPAC, the source SN is released.
* The SN reconfiguration complete message is sent to the selected SN after CPC execution.

#### 2.3.2 Remaining Open issues

Signaling support for L1/L2 based inter-cell mobility

* RS configuration sends from C-DU to S-DU via CU or CU request. Need to discuss detail.
* FFS for the detail of selected beam information.
* For the part of CU to target DU is FFS of which procedure can be used.
* FFS whether CU needs to request the DU to provide the RS configuration.
* FFS on the need of an explicit request from CU for TCI state configuration
* FFS on the procedure from CU to target DU to inform the selected beam information and target cell ID.
  + Option 1: Two new class 2 procedures with different name.
  + Option 2: same new class 2 procedure
  + Option 3: class 1 procedure.
* FFS on non-UE associated signaling or UE associated signaling for RS configuration retrieval.
* FFS on the support of reference configuration on F1.

Selective activation of cell groups

* Stage 2/3 details on introduction of SCG Selective Activation related IEs.
* How to transfer the data forwarding addresses to the selected SN to start early data forwarding?
* How to support reference configuration?
* How to support execution conditions?
* New indicators in S-NODE MODIFICATION REQUEST message, UE CONTEXT SETUP/MODIFICAION REQUEST message and BEARER CONTEXT SETUP REQUEST message?

Support CHO in NR-DC

* Stage 2/3 details on support of CHO associated CPAC configurations.
* Stage 2/3 details on data forwarding optimization.
* Stage 2/3 details on the selected solution regarding avoiding unnecessary CHO cancellation.
* Stage 2/3 details on CHO with multiple SCGs.

## 2.4 RAN4

#### 2.4.1 Agreements

**RAN4 #108 (August 2023)**

* WF on NR Mobility Enhancements (part 1) approved in [1]
* WF on NR Mobility Enhancements (part 2) approved in [2]
* Reply LS on PDCCH order RACH on neighbor cell approved in [3]
* Reply LS on beam application time and UE based TA measurement for LTM approved in [4]
* LS on improvement on FR2 SCell/SCG setup delay approved in [5]

L1/L2 based inter-cell mobility

* Applicability of UL Tx timing requirements for PDCCH ordered PRACH to target cell
  + If TCI state of target cell has been activated before PDCCH ordered RACH, and if SSB index indicated in PDCCH order is in the active TCI state list, and measurement period of L1-RSRP is no longer than 160ms, UE doesn’t need additional time for SSB based T/F tracking to meet Te requirements. otherwise, additional time for SSB based T/F tracking is needed.
  + If SSB index indicated in PDCCH order is not in the active TCI state list that has been activated for the target cell, when the measurement period of L1-RSRP is no longer than 160ms, whether additional delay is needed for TSSB is FFS.
* In R18 LTM, follow RAN2 agreements that only consider PDCCH ordered RACH on neighbour cell without RAR to define RAN4 requirements when TA of the target cell is sent to UE together with the cell switch command.
* The time for RF preparation and RF re-tuning is needed if RACH bandwidth of neighbor cell is not in the UL active BWP
* RAN4 shall introduce a new term for additional time for RF and/or BB preparation and retuning in PDCCH ordered PRACH toward target cell before cell switch.
* ∆BWPSwitching is not needed because all required components will be addressed separately.
* For the case of PRACH bandwidth outside active UL BWP but within one of configured UL BWPs of any active serving cell, ∆RF/BB\_preparation is DCI based BWP switching delay specified in clause 8.6 of TS 38.133 (in TS 38.133, DCI based BWP switch delay value is dependent on UE capability).
* For the case of PRACH bandwidth is not within any of the configured UL BWPs of any active serving cell, ∆RF/BB\_preparation is FFS
* ∆Delay, Tswitch, NT,2 remain unchanged.
* Common understanding: If *deriveSSB-IndexFromCell* or *deriveSSB-IndexFromCellInter* is enabled, UE can derive SSB index according to serving cell timing.
* Introduce optional UE support to use L3 measurement results for intra-frequency and inter-frequency L1 measurement report.

Note: the solution will be removed from the WI scope if all details and CRs are not finalized in RAN4#109. The solution will be removed from the WI scope if there is impact on RAN1/2.

* Do not define requirements for gap based intra-frequency L1 measurement if target SSB is not within active BWP in R18 LTM.
* Using SSB periodicity instead of SMTC periodicity when defining the requirements for L1-RSRP measurement requirements in FR1 if not L3 measurement-based.
* In FR1, within one gap occasion,
  + If L1-RSRP and L3 measurement of the same frequency layer overlap, they can be counted as same frequency layer when calculating CSSF.
  + FFS: Otherwise, L1 inter-frequency measurement on a frequency layer is considered as an independent frequency layer when calculating CSSF for other overlapped inter-frequency layers.
* Not define the LTM delay requirement which starts from UE receives RRC configuration on candidate cell(s) before cell switch command.
* For RACH-less cell switch, the ending point of cell switch delay is the time when UE performs the first UL transmission on the indicated beam of the target cell.
* Tsearch = 0 as unknown cell case is not considered in rel-18.
* When TCI state is indicated together with cell switch command, only define cell switch delay requirements for known TCI state case and not define requirements for unknown TCI state case in R18.
  + FFS when TCI activation is based on L3 measurements
* For RACH-based cell switch, legacy definition of Tuncertainity/TIU can be used.
* For RACH-less cell switch there is, [Tuncertainity/TIU ] delay uncertainty to wait for the UL resource to transmit RRCReconfigurationComplete.
* RAN4 is still discussing whether beam application time shall be taken into account in RAN4 cell switch delay requirements and the possible latency when UE is ready for PDCCH in target cell in different scenarios.

NR-DC with selective activation of cell groups

* No consensus to update previous agreement “For subsequent CPAC, UE is not evaluating the execution condition of other candidate PSCells while executing CPC, and the evaluation is continued after finishing the PSCell addition or change”

Improvement on Scell/SCG setup/resume

* From RAN4 requirements point of view, RAN4 will not consider measurement originated from CONNECTED mode before UE enters IDLE/INACTIVE mode.
* For UE which is not capable of EMR, when the measurement results during idle/inactive mode are available and valid, UE can report these results to the network during or after RRC setup or resume procedures. The reporting procedure is up to RAN2.
* Starting point of the enhanced measurement
  + For MT originating call, UE starts to perform additional measurement after paging reception.
  + And for MO call, UE starts to perform additional measurement after first RACH preamble transmission, i.e. Msg1.
  + Note: the respective agreement can be used to derive requirements once feasibility of enhanced solution is confirmed
* The ending point of enhanced measurement at the reception of the RRC CONNECTED mode measurement configuration (the 1st RRC\_reconfiguration message)

Note: the respective agreement can be used to derive requirements once feasibility of enhanced solution is confirmed

* It is up to UE implementation how to select a band to report unless NW specify a band to report.

Enhanced CHO configurations

* PCell handover delay in CHO including target MCG and target SCG in FR1+FR1 NR-DC (obj. 3)
  + When PCell RACH and PSCell RACH occasion are not colliding, Delay requirements of FR1+FR2 DC shall also apply except Tprocessing shall follow HO with PScell. Otherwise, no requirements.
* PSCell handover delay in CHO including target MCG and target SCG in FR1+FR1 NR-DC (obj. 3)
  + When PCell RACH and PSCell RACH occasion are not colliding, Delay requirements of FR1+FR2 DC shall also apply except Tprocessing shall follow HO with PScell. Otherwise, no requirements.
* RAN4 not to define the corresponding RRM requirements on Enhanced CHO configurations including CHO with PSCell addition in NR-DC (obj.3) in Rel-18 and postpone to them in further release until the deployment of from SA to NR-DC is supported
* PCell handover delay in CHO including target MCG and candidate SCG for CPC/CPA in FR1+FR2 NR-DC (obj. 4)
  + When the UE is NOT provided with CHO-only configuration
    - DCHOwithCPAC\_PCell = TRRC + TEvent\_DU + max(Tmeasure\_CHO, Tmeasure\_CPA/CPC) + Tprocessing + TIU + T∆ + Tmargin + TCHO\_execution
      * Tmeasure for CHO is used as baseline for Tmeasure\_CHO
      * Tmeasure for CPA/CPC is used as baseline for Tmeasure\_CPA/CPC
* PSCell handover delay in CHO including target MCG and candidate SCG for CPC/CPA in FR1+FR2 NR-DC (obj. 4)
  + When the UE is NOT provided with CHO-only configuration
    - DCHOwithPSCell\_PSCell = TRRC + TEvent\_DU + max(Tmeasure\_CHO, Tmeasure\_CPA/CPC) + TCHO\_execution + Tprocessing + T∆\_PSCell + TPSCell\_ DU + 2 ms,
      * Tmeasure for CHO is used as baseline for Tmeasure\_CHO
      * Tmeasure for CPA/CPC is used as baseline for Tmeasure\_CPA/CPC
* When the UE is NOT provided with CHO-only configuration
  + TEvent\_DU is the delay uncertainty which is the time from when the UE successfully decodes a conditional handover command including target MCG and candidate SCG for CPC/CPA until a condition exists at the measurement reference point which will trigger the CHO and CPC/CPA.
* Tprocessing: reuse agreements in handover with PSCell.
* TCHOwithCPAC\_execution is the UE execution preparation time for conditional handover with conditional PSCell addition/change, and starts after UE realizes the conditions of CHO and CPA/C are met and identity of the target cells are determined. TCHOwithCPAC\_execution can be up to 10ms.
* PCell/PSCell handover delay in CHO including target MCG and candidate SCG for CPC/CPA in FR1+FR1 NR-DC (obj.4)
  + requirements shall be same as FR1+FR2 DC except Tprocessing, which shall be same as Tprocessing defined in handover with PSCell in FR1+FR1 DC.
* RAN4 not to define the corresponding RRM requirements on Enhanced CHO configurations including CHO with CPA in NR-DC (obj.4) in Rel-18 and postpone to them in further release until the deployment of from SA to NR-DC is supported.

#### 2.4.2 Remaining Open issues

L1/L2 based inter-cell mobility

* Specify RF requirement(s) if any
* RRM requirements to specify
  + Specify the components of L1/L2 inter-cell mobility delay without consensus yet.
  + Discuss how to specify intra-frequency L1-RSRP measurement requirements
  + Discuss how to specify inter-frequency L1-RSRP measurement requirements
  + Discuss the value of additional RF/BB preparation and RF retuning time needed for PDCCH order RACH on candidate cell
  + Discuss the interruption due to PDCCH order RACH on candidate cell
  + Discuss the interruption requirements during cell switch
* Measurement accuracy
  + Further discuss the side condition for intra-frequency L1-RSRP measurement accuracy requirements
  + Further discuss whether and how to define Inter-frequency L1-RSRP measurement accuracy requirements

Improvement on Scell/SCG setup/resume

* Further discuss the solutions to improve SCell/SCG setup delay, including the feasibility study of doing additional measurement starting from RRC setup/resume

Enhanced CHO configurations

* Further discuss the definition of Tmeasure in the delay requirements for CHO including target MCG and candidate SCG for CPC/CPA in NR-DC (obj. 4)

## 2.5 RAN5

#### 2.5.1 Agreements

#### 2.5.2 Remaining Open issues

#### 2.5.3 Remaining Open issues with cross-WG dependencies

## 2.6 RAN6

#### 2.6.1 Agreements

#### 2.6.2 Remaining Open issues

## 3. Detailed progress in SA/CT WGs since last TSG meeting (for all involved WGs)

NOTE: This section only needs to be filled in for WI/SIs where there is a corresponding relevant WI/SI in SA/CT.

## 3.1 SAx/CTs

#### 3.1.1 Agreements with cross-TSG impacts

#### 3.1.2 Remaining Open issues with cross-TSG impacts

NOTE: This section should also flag any critical dependencies that need TSG attention.

## 4. References

NOTE: This can be e.g. a list of all related Tdocs in the affected WGs since last TSG, references to LSs, produced TRs/TSs, the work/study item description or status reports of previous TSGs.

1. R4-2314453 WF on NR Mobility Enhancements (part 1), MediaTek inc.
2. R4-2314332 WF on NR Mobility Enhancements RRM requirements (part 2), Apple
3. R4-2314454, Reply LS on PDCCH order RACH on neighbor cell, CATT
4. R4-2314455, Reply LS on beam application time and UE based TA measurement for LTM, Ericsson
5. R4-2314466, LS on improvement on FR2 SCell/SCG setup delay, Nokia

**RAN1#114 (August 2023)**

|  |  |  |
| --- | --- | --- |
| [**R1-2306405**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306405.zip) | FL plan on L1 enhancements for LTM at RAN1#114 | Moderator (Fujitsu, MediaTek) |
| [**R1-2306425**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306425.zip) | L1 enhancements for inter-cell beam management | FUTUREWEI |
|  |  |  |
| [**R1-2306426**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306426.zip) | UE based RACH-less TA determination for inter-cell LTM | FUTUREWEI |
| [**R1-2306518**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306518.zip) | L1 enhancements for inter-cell beam management | Huawei, HiSilicon |
| [**R1-2306519**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306519.zip) | Timing advance management to reduce latency | Huawei, HiSilicon |
| [**R1-2306578**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306578.zip) | Discussions on L1 enhancements for inter-cell beam management | Ruijie Network Co. Ltd |
| [**R1-2306579**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306579.zip) | Discussions on timing advance management to reduce latency | Ruijie Network Co. Ltd |
| [**R1-2306601**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306601.zip) | L1 enhancements to inter-cell beam management | Ericsson |
| [**R1-2306602**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306602.zip) | Timing advance management for L1/L2 Mobility | Ericsson |
| [**R1-2306616**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306616.zip) | L1 enhancements for inter-cell beam management | ZTE |
| [**R1-2306617**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306617.zip) | Enhancements on TA management to reduce latency | ZTE |
| [**R1-2306663**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306663.zip) | Discussion on L1 enhancements for inter-cell beam management | Spreadtrum Communications |
| [**R1-2306664**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306664.zip) | Discussion on timing advance management to reduce latency | Spreadtrum Communications |
| [**R1-2306767**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306767.zip) | Discussion on L1 enhancement for LTM | vivo |
| [**R1-2306768**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306768.zip) | Discussion on TA management for LTM | vivo |
| [**R1-2306812**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306812.zip) | Layer-1 Enhancements for L1/L2-triggered Mobility | Nokia, Nokia Shanghai Bell |
| [**R1-2306813**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306813.zip) | Timing Advance Management for L1/L2-triggered Mobility | Nokia, Nokia Shanghai Bell |
| [**R1-2306938**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306938.zip) | L1 enhancements for inter-cell beam management | Lenovo |
| [**R1-2306939**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306939.zip) | Timing advancement management for L1L2 mobility | Lenovo |
| [**R1-2306947**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2306947.zip) | Discussion on L1 enhancements for inter-cell beam management | NEC |
| [**R1-2307018**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307018.zip) | Enhancements on inter-cell beam management for mobility | LG Electronics |
| [**R1-2307019**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307019.zip) | Enhancements on TA management for mobility | LG Electronics |
| [**R1-2307060**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307060.zip) | Remaining issues on L1 enhancements for inter-cell beam management | CATT |
| [**R1-2307061**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307061.zip) | Remaining issues on TA management to reduce latency | CATT |
| [**R1-2307164**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307164.zip) | Views on L1 enhancements for inter-cell beam management | Fujitsu |
| [**R1-2307213**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307213.zip) | Discussion on L1 enhancements for inter-cell beam management | CMCC |
| [**R1-2307214**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307214.zip) | Discussion on timing advance management to reduce latency | CMCC |
| R1-2307223 | L1 enhancements for inter-cell beam management | KDDI Corporation |
| [**R1-2307297**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307297.zip) | L1 Enhancements for Inter-Cell Beam Management | Apple |
| [**R1-2307298**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307298.zip) | Timing advance management for L1/L2 Mobility | Apple |
| [**R1-2307335**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307335.zip) | FL plan on L1 enhancements for LTM at RAN1#114 | Moderator (Fujitsu, MediaTek) |
| [**R1-2307354**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307354.zip) | Discussion on L1 enhancements for inter-cell beam management in LTM | xiaomi |
| [**R1-2307355**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307355.zip) | Discussion on Timing advance management | xiaomi |
| [**R1-2307403**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307403.zip) | L1 enhancements for inter-cell beam management | KDDI Corporation |
| R1-2307408 | FL summary 1 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |
| R1-2307409 | FL summary 2 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |
| R1-2307410 | FL summary 3 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |
| [**R1-2307488**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307488.zip) | Discussion on L1 enhancements for inter-cell mobility | NTT DOCOMO, INC. |
| [**R1-2307489**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307489.zip) | Timing advance enhancement for inter-cell mobility | NTT DOCOMO, INC. |
| [**R1-2307526**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307526.zip) | Discussions on Inter-cell beam management enhancement | OPPO |
| [**R1-2307527**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307527.zip) | Discussions on Timing Advance Management | OPPO |
| [**R1-2307697**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307697.zip) | On L1 enhancements for inter-cell beam management | Samsung |
| [**R1-2307698**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307698.zip) | Candidate cell TA acquisition for NR L1/L2 mobility enhancement | Samsung |
| [**R1-2307752**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307752.zip) | Discussion on TA management for mobility enhancements | ETRI |
| [**R1-2307767**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307767.zip) | Discussion on measurement enhancement of L1L2 triggered mobility | Transsion Holdings |
| [**R1-2307768**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307768.zip) | Discussion on TA management for L1/L2 mobility | Transsion Holdings |
| [**R1-2307780**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307780.zip) | Discussion on L1 enhancements for inter-cell beam management | FGI |
| [**R1-2307839**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307839.zip) | Remaining issues on L1 triggered mobility | InterDigital, Inc. |
| [**R1-2307840**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307840.zip) | Discussion on the remaining details for timing advance management | InterDigital, Inc. |
| [**R1-2307850**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307850.zip) | Discussion on L1 enhancements for inter-cell beam management | Google |
| [**R1-2307851**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307851.zip) | Discussion on timing advance management to reduce latency | Google |
| [**R1-2307892**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307892.zip) | Discussion on TA management to reduce latency | ITRI |
| [**R1-2307946**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307946.zip) | L1 Enhancements for Inter-Cell Beam Management | Qualcomm Incorporated |
| [**R1-2307947**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2307947.zip) | TA management to reduce latency for L1/L2 based mobility | Qualcomm Incorporated |
| [**R1-2308012**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2308012.zip) | Discussion on TA management to reduce latency | CAICT |
| [**R1-2308073**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2308073.zip) | UL Timing management to reduce handover latency | MediaTek Inc. |
| [**R1-2308084**](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_114/Docs/R1-2308084.zip) | L1 enhancements for inter-cell beam management | MediaTek Inc. |
| R1-2308242 | Moderator summary on Timing advance management for LTM: Round 1 | Moderator (CATT) |
| R1-2308405 | Moderator summary on Timing advance management for LTM: Round 2 | Moderator (CATT) |
| R1-2308447 | Draft reply LS on L1 measurements for LTM | Moderator (Ericsson) |
| R1-2308465 | Reply LS on L1 measurements for LTM | RAN1, Ericsson |
| R1-2308468 | Moderator summary on Timing advance management for LTM: Round 3 | Moderator (CATT) |
| R1-2308548 | Session notes for 9.10 (Further NR mobility enhancements) | Ad-Hoc Chair (CMCC) |
| R1-2308592 | FL summary 4 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |
| R1-2308593 | Final summary on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |

**RAN2#123 (August 2023)**

|  |  |  |
| --- | --- | --- |
| R2-2307020 | LS on beam application time, contents of cell switch command, TCI state activation and UE based TA measurement for LTM (R1-2304276; contact: Fujitsu, MediaTek, CATT) | RAN1 |
| R2-2307070 | LS on Security Solution for Selective SCG (S3-233200; contact: Nokia) | SA3 |
| R2-2307137 | L1 Measurement to support LTM | NEC |
| R2-2307138 | Failure handling for L1/L2 triggered mobility | NEC |
| R2-2307139 | RACH less LTM cell switch | NEC |
| R2-2307168 | Open issues for Early Timing Advance Management for LTM | Samsung Electronics Co., Ltd |
| R2-2307169 | TAT and TCI state handling upon cell switching | Samsung Electronics Co., Ltd |
| R2-2307180 | Cell Switch details | Lenovo |
| R2-2307181 | Initial Early TA acquisition | Lenovo |
| R2-2307207 | RRC Running CR for CHO with candidate SCGs | CATT |
| R2-2307208 | Remaining Issues on RACH-less LTM | CATT |
| R2-2307209 | Discussion on L2 Centric Parts | CATT |
| R2-2307210 | Discussion on Selective Activation of Cell Groups in NR-DC | CATT |
| R2-2307211 | Report of [Post122][057][Mob18] 38.331 Running CR for CHO with candidate SCGs | CATT |
| R2-2307212 | Discussion on CHO with candidate SCGs | CATT |
| R2-2307222 | On scenarios for LTM | CATT |
| R2-2307223 | Discussion on RRC aspects for LTM | CATT |
| R2-2307289 | Remaining issues on dynamic cell switch | vivo |
| R2-2307290 | Discussion on Early TA acquisition and LTM procedure | vivo |
| R2-2307291 | RRC configuration for LTM | vivo |
| R2-2307292 | Discussion on security aspects for selective SCG based on SA3 reply LS | vivo |
| R2-2307293 | Remaining issues for NR-DC with selective activation cell of groups | vivo |
| R2-2307294 | Discussion on CHO with candidate SCGs | vivo |
| R2-2307372 | 37.340 running CR for introduction of NR further mobility enhancements | ZTE Corporation, Sanechips |
| R2-2307373 | Remaining issues on LTM RRC | ZTE Corporation, Sanechips |
| R2-2307374 | Remaining issues on subsequent CPAC | ZTE Corporation, Sanechips |
| R2-2307375 | Preparation procedure for subsequent CPAC | ZTE Corporation, Sanechips |
| R2-2307376 | Discussion on CHO with candidate SCG(s) | ZTE Corporation, Sanechips |
| R2-2307379 | On UE based TA measurement and RACH-less LTM | Futurewei |
| R2-2307380 | Configuration for sequential measurement and UE based RACH-less LTM | Futurewei |
| R2-2307381 | Support UE based RACH-less LTM at lower layer | Futurewei |
| R2-2307382 | Open Issues for LTM RRC | MediaTek Inc. |
| R2-2307388 | Discussion on replying to the RAN1 LS on beam application time for LTM | Fujitsu, CATT, MediaTek |
| R2-2307389 | [Draft] Reply LS on beam application time for LTM | Fujitsu, CATT, MediaTek |
| R2-2307390 | Failure detection and fast recovery | Fujitsu |
| R2-2307396 | RAN2 aspects of RACH-based early TA acquisition | Fujitsu |
| R2-2307397 | RRC aspects of L1/L2 triggered mobility | Fujitsu |
| R2-2307398 | LTM cell switch execution and completion | Fujitsu |
| R2-2307407 | Discussion on NR-DC with subsequent CPAC. | DENSO CORPORATION |
| R2-2307445 | Discussion on LTM failure handling | DOCOMO Beijing Labs |
| R2-2307576 | On Validity Check for LTM Configuration | Nokia, Nokia Shanghai Bell |
| R2-2307577 | On Reference, Delta, Subsequent LTM and L3 Mobility | Nokia, Nokia Shanghai Bell |
| R2-2307578 | Further details on CHO with CPAC in Rel-18 | Nokia, Nokia Shanghai Bell |
| R2-2307610 | RRC aspects for LTM | Huawei, HiSilicon |
| R2-2307611 | Supported scenarios and stage 2 latency description | Huawei, HiSilicon |
| R2-2307612 | RACH-less LTM and early TA acquisition | Huawei, HiSilicon |
| R2-2307613 | Subsequent CPAC | Huawei, HiSilicon |
| R2-2307642 | Further discussion on cell switch | NEC |
| R2-2307643 | Discussion on RAN3 related issues | NEC |
| R2-2307644 | Further details on subsequent CPAC | NEC |
| R2-2307667 | LTM failure recovery | LG Electronics |
| R2-2307668 | Discussion on LTM RRC configuration | LG Electronics |
| R2-2307669 | Remaining issues of RRC configured Layer-2 reset | Xiaomi |
| R2-2307670 | Remaining issues of RACH-less LTM and early TA | Xiaomi |
| R2-2307671 | Clarification on the TCI state indicated in the LTM MAC CE | Xiaomi |
| R2-2307683 | Discussion on subsequent CPAC | NTT DOCOMO, INC. |
| R2-2307687 | Discussions on remaining issues for RACH-less LTM | KDDI Corporation |
| R2-2307697 | Beam handling and security issue on cell switch for LTM | Samsung |
| R2-2307698 | Considerations on Subsequent CPAC after SCG Change | Samsung |
| R2-2307714 | Remaining issues for RRC Aspects of LTM | Sharp |
| R2-2307715 | Discussion on NR-DC with selective activation cell of groups | KDDI Corporation |
| R2-2307771 | Further analysis on S-CPAC signalling procedures, Configurations and security issues | Nokia, Nokia Shanghai Bell |
| R2-2307781 | Discussion on LTM failure handling | DOCOMO Beijing Labs |
| R2-2307785 | CHO with multiple candidate SCGs | Qualcomm Incorporated |
| R2-2307786 | SCG Selective Activation in NR-DC | Qualcomm Incorporated |
| R2-2307863 | RSTD based early TA acquisition | Apple |
| R2-2307864 | Discussion on Subsequent CPAC | Apple |
| R2-2307883 | Enhancing the L2 reset signalling in LTM | Apple |
| R2-2307884 | CFRA and CG configuration aspects in LTM | Apple |
| R2-2307885 | RAN2 impacts from SA3 security key reuse solutions | Apple |
| R2-2307886 | LTM cell switch link failure handling | Apple |
| R2-2307887 | TCI state operations for LTM | Panasonic |
| R2-2307888 | Discussion the remaining issues for LTM early TA acquisition | ITRI |
| R2-2307889 | Discussion on the evaluation adjustment for SCPAC | ITRI |
| R2-2307890 | Discussion on SCG failure handling with subsequent CPAC | ITRI |
| R2-2307900 | Discussion on CHO with candidate SCG | FGI |
| R2-2307961 | 38.321 running CR for introduction of NR further mobility enhancements | Huawei, HiSilicon |
| R2-2307962 | Summary of [Post122][058][Mob18] Contents of Cell Switch MAC CE | Huawei, HiSilicon |
| R2-2307963 | Leftovers related LTM MAC CE and cell switch | Huawei, HiSilicon |
| R2-2307964 | Discussion on CHO with candidate SCG(s) | Huawei, HiSilicon |
| R2-2307971 | Subsequent CPAC | Ericsson |
| R2-2307972 | CHO with associated CPC or CPA | Ericsson |
| R2-2307985 | Miscellaneous issues of L1/L2 Triggered Mobility | Rakuten Symphony |
| R2-2307986 | TA Acquisition before LTM Serving cell change | Rakuten Symphony |
| R2-2307987 | Delayed Resource Reservation for inter gNB-DU LTM | Rakuten Symphony |
| R2-2307988 | Prioritizing of LTM candidate cells | Rakuten Symphony |
| R2-2308002 | Left issues on subsequent CPAC | Lenovo |
| R2-2308003 | Re-acquisition and forwarding of early TA | Lenovo |
| R2-2308004 | RRC issues for LTM | Lenovo |
| R2-2308005 | CHO with candidate SCG for CPAC | Lenovo |
| R2-2308036 | Security impacts of intra gNB, inter gNB-CU-UP relocation | Rakuten Symphony |
| R2-2308037 | Discussion on early sync and RACH-less for LTM | OPPO |
| R2-2308038 | Discussion on RRC open issues for LTM | OPPO |
| R2-2308039 | Discussion on CG based first UL transmmission for RACH-less LTM | OPPO |
| R2-2308040 | RRC running CR for subsequent CPAC in NR-DC | OPPO |
| R2-2308041 | Discussion on execution condition for subsequent CPAC | OPPO |
| R2-2308042 | Open issues for subsequent CPAC in NR-DC | OPPO |
| R2-2308043 | Discussion on open issues for CHO with candidate SCGs | OPPO |
| R2-2308096 | Fast cell recovery operations for LTM failures | PANASONIC |
| R2-2308121 | Discussion on issues of subsequent CPAC | Spreadtrum Communications |
| R2-2308122 | Discussion on CHO with CPAC in NR-DC | Spreadtrum Communications |
| R2-2308123 | Discussion on the remaining RRC aspects for LTM | Spreadtrum Communications |
| R2-2308145 | 38.300 running CR for introduction of NR further mobility enhancements | MediaTek Inc. |
| R2-2308147 | Remaining issues for The Contents of LTM MAC CE | Sharp |
| R2-2308148 | Remaining issues for Subsequent CPAC | Sharp |
| R2-2308149 | RACH-Less LTM and Early TA Acquisition | MediaTek Inc. |
| R2-2308172 | RACH-less solution and TA indication for LTM | Sony |
| R2-2308213 | Discussion on open issues of RACH-less LTM cell switch | Transsion Holdings |
| R2-2308214 | Discussion on remaining issues of measurement for LTM | Transsion Holdings |
| R2-2308215 | Discussion on open issues for LTM | Transsion Holdings |
| R2-2308216 | Discussion on Selective Activation of Cell Groups in NR-DC | Transsion Holdings |
| R2-2308226 | Considerations on CHO with CPA/CPC | Samsung |
| R2-2308287 | Discussion on NR-DC with selective activation of cell groups | CMCC |
| R2-2308303 | Discussion on CHO including target MCG and candidate SCGs for CPC/CPA | CMCC |
| R2-2308318 | Considerations on failure handling | CMCC |
| R2-2308319 | Discussions on LTM open issues | CMCC |
| R2-2308320 | Considerations on cell switch | CMCC |
| R2-2308408 | Subsequent change of SCGs and selective activation | Interdigital Inc. |
| R2-2308409 | CHO with associated SCG | Interdigital Inc. |
| R2-2308434 | [Post122][055][Mob18] Discussion on RRC open issues list for LTM | Ericsson |
| R2-2308435 | RRC running CR for LTM | Ericsson |
| R2-2308436 | RRC open issues list for LTM | Ericsson |
| R2-2308437 | Discussion of remaining RRC open issues for LTM | Ericsson |
| R2-2308438 | Signalling approaches for LTM cell switch execution | Ericsson |
| R2-2308439 | Stage-2 proposal on early sync for LTM | Ericsson |
| R2-2308440 | Handling of SCells and SCG during LTM cell switch | Ericsson |
| R2-2308441 | LTM handling for fast recovery and RRC Re-establishment | Ericsson |
| R2-2308563 | Subsequent change of SCGs and selective activation | Interdigital Inc. |
| R2-2308564 | CHO with associated SCG | Interdigital Inc. |
| R2-2308572 | RRC\_INACTIVE and LTM | Interdigital, Inc. |
| R2-2308573 | LTM execution upon RLF and HOF | Interdigital, Inc. |
| R2-2308574 | RRC Measurements when LTM is Configured | Interdigital, Inc. |
| R2-2308575 | RLC and PDCP reset | Interdigital, Inc. |
| R2-2308612 | Approaches for inter-DU LTM cell switch | Qualcomm Incorporated |
| R2-2308613 | Conflict between LTM triggering and legacy RRC messaging | Qualcomm Incorporated |
| R2-2308614 | LTM procedures | Qualcomm Incorporated |
| R2-2308615 | RRC aspects of LTM | Qualcomm Incorporated |
| R2-2308685 | Remaining Issues and Security concern alleviation of Cell Switch command | LG Electronics |
| R2-2308716 | Discussion on fallback RACH for L1L2-triggered mobility | ASUSTeK |
| R2-2308745 | Discussion on BWP operation by PDCCH-order based RACH for a candidate cell | LG Electronics Inc. |
| R2-2308750 | Remaining issues for CHO with candidate SCG | MediaTek Inc. |
| R2-2308756 | Discussion on subsequent CPAC | MediaTek Inc. |
| R2-2308772 | Discussion on remaining issues of CHO with candidate SCGs | China Telecom |
| R2-2308785 | Subsequent CPC in NR | LG Electronics |
| R2-2308786 | Simultaneous Evaluation for CHO and CPAC | LG Electronics |
| R2-2308813 | Discussion on L1 measurement RS configuration | Google Inc. |
| R2-2308818 | Discussion on RRC aspects for L1/L2-Triggered Mobility | Xiaomi |
| R2-2308819 | Discussion on subsequent CPAC | Xiaomi |
| R2-2308820 | Discussion on CHO with candidate SCG(s) | Xiaomi |
| R2-2308829 | Discussion on LTM reference configuration | Google Inc. |
| R2-2308840 | Further Considerations on RACH procedure for early TA acquisiton | ZTE Corporation, Sanechips |
| R2-2308841 | Further Discussion on RACH-less LTM execution | ZTE Corporation, Sanechips |
| R2-2308866 | Discussion on RRC aspects of LTM | Samsung |
| R2-2308887 | On the cell switch in LTM | Nokia, Nokia Shanghai Bell |
| R2-2308888 | Further details on TA acquisition and maintenance in LTM | Nokia, Nokia Shanghai Bell |
| R2-2308918 | Discussions on LTM related measurements | CMCC |
| R2-2309224 | [Draft] Reply LS on beam application time for LTM | Fujitsu, CATT, MediaTek |
| R2-2309246 | [DRAFT] Reply LS on security for selective SCG activation. | Nokia |
| R2-2309247 | Report of Offline Discussion [016] for Early TA Acquisition and RACH-Less | ZTE Corporation |
| R2-2309248 | Reply LS on Approaches during execution for inter-DU LTM | Ericsson |
| R2-2309249 | [AT123][015][Mob18] RRC centric offline | Ericsson |
| R2-2309250 | Reply LS on beam application time for LTM | RAN2 |
| R2-2309251 | Reply LS on Approaches during execution for inter-DU LTM | RAN2 |
| R2-2309257 | [AT123][028][Mob18] Understanding of MN-initiated and SN-initiated case (OPPO) | OPPO |
| R2-2309265 | [draft] LS on RAN2 progress on LTM | Huawei, HiSilicon |
| R2-2309266 | Report of [AT123][027][feMob]CHO with candidate SCGs | CATT |
| R2-2309268 | Reply LS on security for selective SCG activation. | RAN2 |

**RAN3 #121 (August 2023)**

|  |  |  |
| --- | --- | --- |
| R3-233709 | LS on beam application time, contents of cell switch command, TCI state activation and UE based TA measurement for LTM | RAN1(Fujitsu/Mediatek/CATT) |
| R3-233719 | LS on Early TA and RACH-less | RAN2(Ericsson) |
| R3-233720 | LS on L1 measurements for LTM | RAN2(Ericsson) |
| R3-233743 | (BLCR to 38.401) for L1L2Mob | Huawei, Ericsson, Nokia, Nokia Shanghai Bell |
| R3-233759 | (BL CR to TS 38.423) Introduction of SCG Selective Activation | Huawei |
| R3-233766 | (BLCR to 38.473) Additions for L1/L2 triggered mobility | Ericsson, Huawei, Nokia, Nokia Shanghai Bell, Intel Corporation |
| R3-233776 | (BLCR to 37.340) Introduction of CHO with SCG(s) | CATT |
| R3-233818 | (TP for CHO with NR-DC to TS 38.423, TS37.340): Early data forwarding optimization for CHO with SCG procedure | ZTE |
| R3-233827 | TP (BL CR TS 38.401) L1/2 Triggered Mobility (LTM) Procedures | Nokia, Nokia Shanghai Bell |
| R3-233828 | TP (BL CR TS 38.473) Additional Implications to L1/2 Triggered Mobility (LTM) | Nokia, Nokia Shanghai Bell |
| R3-233834 | [TPs to TS38423, TS37483 and TS37340, CHO with NRDC] Continuation of the discussions on enhancements for CHO with MR-DC | Nokia, Nokia Shanghai Bell |
| R3-233835 | Considerations on the indication of Selective Activation and collateral problems that must be addressed to enable the feature. | Nokia, Nokia Shanghai Bell |
| R3-233840 | (TP to Mob\_enh2 BL CR TS38.401) Discussion on L1/L2 based Inter-cell Mobility | Samsung Beijing |
| R3-233869 | Rel-18 LTM issues | NEC |
| R3-233870 | (TP to TS 38.473 on LTM) co-existence between LTM and L3 mobility | NEC |
| R3-233871 | Discussion on Selective Activation of the cell of groups | NEC |
| R3-233872 | (TP to TS38.423 BL CR) Selective Activation of the cell of groups | NEC |
| R3-233885 | (TPs for SCG Selective Activation BLCR for TS 38.423 & TS 38.473) Reference SCG configuration | Google Inc. |
| R3-233886 | (TP for L1L2Mob BLCR for TS 38.401) Reference configuration and Target Configuration ID in LTM | Google Inc. |
| R3-233887 | (TP for L1L2Mob BLCR for TS 38.473) Reference configuration and Target Configuration ID in LTM | Google Inc. |
| R3-233888 | (TP for L1L2Mob BL CR for TS 38.473) UE Context identification | Google Inc. |
| R3-233905 | (TP for LTM BL CR to TS 38.401) Solutions for LTM | Ericsson |
| R3-233906 | (TP for LTM BL CR to TS 38.473) F1AP impacts for LTM | Ericsson |
| R3-233907 | (TP to TS 37.340 and 38.423 BL CRs) CHO with candidate SCG(s) | Ericsson |
| R3-233908 | (TP to TS 38.423 BL CR) Subsequent CPAC | Ericsson |
| R3-233954 | (TP to BLCR TS38.423) Considerations on CHO in NR-DC | Samsung |
| R3-233982 | CHO with multiple candidate SCGs | Qualcomm Incorporated |
| R3-233983 | SCG Selective Activation in NR-DC | Qualcomm Incorporated |
| R3-233984 | Signalling Support for LTM | Qualcomm Incorporated |
| R3-234000 | Discussion on subsequent CPAC procedures | China Telecommunication |
| R3-234001 | (TP to BL CRs of 38.423/38.473) On support of subsequent CPAC procedures | China Telecommunication |
| R3-234040 | Resource management at gNB-DU for LTM | Rakuten Symphony |
| R3-234041 | Intra gNB CU-UP relocation during LTM | Rakuten Symphony |
| R3-234074 | (TP for L1L2Mob BLCR for TS 38.401): Discussion on RAN3 impacts from the incoming LSs | Huawei |
| R3-234075 | (TP for L1L2Mob BLCR for TS 38.473): L1/L2 Mobility | Huawei |
| R3-234084 | (TPs to TS 37.340 and 38.423 BL CRs) avoid multiple data forwarding paths | Huawei, Samsung, Lenovo, Qualcomm Incorporated |
| R3-234085 | (TPs for TS 37.340, 38.423 BLCRs) Other CHO related aspects | Huawei |
| R3-234086 | (TP to TS 38.423 BLCR) Consideration on Subsequent CPAC | Huawei |
| R3-234165 | Discussion on L1L2 based inter-cell mobility | Lenovo |
| R3-234166 | (TP to TS 38.401 & TS 38.470) Support of L1L2 based inter-cell mobility | Lenovo |
| R3-234167 | Discussion on CHO in NR-DC | Lenovo |
| R3-234192 | (TP for TS 38.473) On Subsequent CPAC | Lenovo |
| R3-234201 | (TP for BLCR of 38.401)Further consideration about LTM execution procedure | CATT |
| R3-234202 | (TP for 38.473 BLCR) Further consideration about candidate cell configuration | CATT |
| R3-234348 | Discussions on stage-3 and inter-DU LTM | LG Electronics Inc. |
| R3-234349 | (TP for LTM BL CR for TS 38.473) | LG Electronics Inc. |
| R3-234350 | Discussion on signaling support for CHO with SCGs (TP for TS 38.423) | LG Electronics Inc. |
| R3-234368 | Further discussion on LTM | NTT DOCOMO INC.. |
| R3-234369 | Security issue on selective activation | NTT DOCOMO INC.. |
| R3-234384 | Discussion on selective activation of the cell groups | Samsung |
| R3-234394 | TP to BLCR for 38.423 on CHO with SCG and multiple SCGs | CATT |
| R3-234395 | Discussion on NR-DC with selective activation of the cell groups | CATT |
| R3-234446 | (TP to TS 38.401) L1/L2 based Inter-Cell Mobility | CMCC |
| R3-234447 | Discussion on L1L2 based Inter-Cell Mobility | CMCC |
| R3-234459 | (TP for LTM BL CR to TS 38.473) Discussion on L1L2 triggered mobility | ZTE |
| R3-234460 | TP for LTM BL CR to TS 38.401 | ZTE |
| R3-234461 | (TP for TS 38.423 BL CR) Discussion on support of subsequent CPAC | ZTE |
| R3-234462 | (Subsequent CPAC BL CR to TS 37.340) Introduction of subsequent CPAC | ZTE, China Telecom, Huawei, China Unicom |
| R3-234563 | (BLCR to 37.340) Introduction of CHO with SCG(s) | CATT |
| R3-234574 | CB:#MobilityEhn\_L1L2Mobility | Huawei |
| R3-234575 | CB:#MobilityEhn\_CHO | Samsung |
| R3-234576 | CB:#MobilityEhn\_S-CPAC | ZTE |
| R3-234631 | (TP to TS 37.340 BLCR on CHO with SCG) Avoid multiple data forwarding paths | Nokia, Nokia Shanghai Bell |
| R3-234632 | (TP to TS 37.340 BLCR on CHO with SCG) Support of CHO with multiple SCGs | ZTE, Samsung, Huawei, LG Electronics, Ericsson, Nokia, Nokia |
| R3-234633 | (TP to TS 38.423 BLCR on CHO with SCG) Support of CHO with multiple SCGs | Ericsson |
| R3-234634 | (TP to TS 38.423 BLCR on CHO with SCG) Avoid multiple data forwarding paths | Huawei |
| R3-234642 | (TP for L1L2Mob BLCR for TS 38.401): Inter-DU LTM procedure update | Huawei, Nokia, Nokia Shanghai Bell, ZTE, LG Electronics, Ericsson |
| R3-234661 | (TP to TS 38.473 on LTM) co-existence between LTM and L3 mobility | NEC, Nokia, Nokia Shanghai Bell, Huawei, Lenovo, LG Electronics, ZTE, Google |
| R3-234690 | (TP for LTM BL CR to TS 38.473) F1AP impacts for LTM | Ericsson, Nokia, Nokia Shanghai Bell, ZTE, Huawei, Lenovo, LG Electronics |
| R3-234705 | (TP to 38.423 BL CR) CHO with candidate SCG(s) | Ericsson |
| R3-234706 | (TP for TS 38.423 BLCR) Correction on Subsequent CPAC naming | Lenovo |
| R3-234708 | (Subsequent CPAC BL CR to TS 37.340) Introduction of subsequent CPAC | ZTE, China Telecom, Huawei, China Unicom |
| R3-234709 | TP for LTM BL CR to TS 38.401 | ZTE, Nokia, Nokia Shanghai Bell, LG Electronics, Huawei, Ericsson |
| R3-234734 | (TP to TS 38.423 BLCR on CHO with SCG) Avoid multiple data forwarding paths | Huawei, LG Electronics, Samsung, ZTE, Ericsson |
| R3-234757 | TP for LTM BL CR to TS 38.401 | ZTE, Nokia, Nokia Shanghai Bell, LG Electronics, Huawei, Ericsson |
| R3-234758 | (TP for L1L2Mob BLCR for TS 38.401): Inter-DU LTM procedure update | Huawei, Nokia, Nokia Shanghai Bell, ZTE, LG Electronics, Ericsson |
| R3-234759 | (TP to TS 38.473 on LTM) co-existence between LTM and L3 mobility | NEC, Nokia, Nokia Shanghai Bell, Huawei, Lenovo, LG Electronics, ZTE, Google, Samsung, CMCC |
| R3-234760 | (TP for LTM BL CR to TS 38.473) F1AP impacts for LTM | Ericsson, Nokia, Nokia Shanghai Bell, ZTE, Huawei, Lenovo, LG Electronics, CMCC |
| R3-234761 | (TP to TS 38.423 BLCR on CHO with SCG) Support of CHO with multiple SCGs | Ericsson |
| R3-234764 | (TP for TS 38.423 BLCR) Correction on Subsequent CPAC naming | Lenovo |

**RAN4 #108 (August 2023)**

|  |  |  |
| --- | --- | --- |
| [R4-2311162](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311162.zip) | Discussion on improvement on Scell/SCG setup delay | Qualcomm Incorporated |
| [R4-2311163](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311163.zip) | DraftCR on CHO with Pscell change | Qualcomm Incorporated |
| [R4-2311164](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311164.zip) | Discussion on Enhanced CHO configuraitons remaining issues. | Qualcomm Incorporated |
| [R4-2311374](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311374.zip) | Discussion on RAN1 LS on LTM | Apple |
| [R4-2311375](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311375.zip) | Reply LS on LTM | Apple |
| [R4-2311376](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311376.zip) | Discussion on general aspects and scenarios of L1/L2 based inter-cell mobility | Apple |
| [R4-2311377](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311377.zip) | Discussion on L1-RSRP measurement requirements of L1/L2 based inter-cell mobility | Apple |
| [R4-2311378](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311378.zip) | Discussion on L1/L2 based inter-cell mobility delay requirements | Apple |
| [R4-2311379](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311379.zip) | CR on subsequent conditional PSCell change | Apple |
| [R4-2311380](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311380.zip) | Discussion on improvement on FR2 SCell/SCG setup delay | Apple |
| [R4-2311381](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311381.zip) | Discussion on Enhanced CHO configurations | Apple |
| [R4-2311404](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311404.zip) | [draft] Reply LS on beam application time and UE based TA measurement for LTM | MediaTek Inc. |
| [R4-2311405](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311405.zip) | Discussion on general aspects and scenarios of LTM | MediaTek Inc., Apple |
| [R4-2311406](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311406.zip) | Discussion on L1-RSRP measurement requirements for LTM | MediaTek Inc. |
| [R4-2311407](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311407.zip) | Discussion on LTM delay requirements | MediaTek Inc. |
| [R4-2311408](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311408.zip) | Discussion on Pre-tracking and Pre-UL Synchronization | MediaTek Inc. |
| [R4-2311409](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311409.zip) | Discussion on improvement on SCell/SCG setup/resume | MediaTek Inc. |
| [R4-2311410](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311410.zip) | Discussion on Enhanced CHO configurations | MediaTek Inc. |
| [R4-2311651](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311651.zip) | Discussion on general aspects and scenarios for L1/L2 based inter-cell mobility | CATT |
| [R4-2311652](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311652.zip) | Discussion on L1-RSRP measurement requirements for L1/L2 based inter-cell mobility | CATT |
| [R4-2311653](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311653.zip) | Discussion on L1/L2 inter-cell mobility delay requirements | CATT |
| [R4-2311654](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311654.zip) | Reply LS on time gap between a PDCCH order and the corresponding PRACH transmission for LTM | CATT |
| [R4-2311655](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311655.zip) | Reply LS on for LTM beam application time and UE based TA measurement for LTM | CATT |
| [R4-2311656](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311656.zip) | Discussion on improvement on SCell/SCG setup delay | CATT |
| [R4-2311657](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311657.zip) | Discussion on enhanced CHO configurations | CATT |
| [R4-2311856](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311856.zip) | Discussion on general aspects and scenarios for LTM | Xiaomi |
| [R4-2311857](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311857.zip) | Discussion on L1-RSRP measurement requirements | Xiaomi |
| [R4-2311858](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311858.zip) | Discussion on L1/L2 based inter-cell mobility delay | Xiaomi |
| [R4-2311859](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311859.zip) | Discussion on improvement on Scell/SCG setup delay | Xiaomi |
| [R4-2311871](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311871.zip) | Discussion on L1/L2 inter-cell mobility delay requirements | CMCC |
| [R4-2311872](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311872.zip) | Discussion on general aspects for L1/L2 based inter-cell mobility | CMCC |
| [R4-2311873](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311873.zip) | Discussion on L1-RSRP measurement requirements for L1/L2 based inter-cell mobility | CMCC |
| [R4-2311874](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311874.zip) | Discussion on RAN1 LS on LTM | CMCC |
| [R4-2311875](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311875.zip) | Discussion on improvement on SCell/SCG setup delay | CMCC |
| [R4-2311876](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311876.zip) | Discussion on enhanced CHO | CMCC |
| [R4-2311989](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311989.zip) | Discussion on general aspects and scenarios of L1/L2 based inter-cell mobility | China Telecom |
| [R4-2311990](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2311990.zip) | Discussion on L1/L2 inter-cell mobility delay requirements | China Telecom |
| [R4-2312122](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312122.zip) | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | vivo |
| [R4-2312123](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312123.zip) | Discussion on Enhanced CHO configurations | vivo |
| [R4-2312124](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312124.zip) | Discussion on RRM requirements of FR2 measurements for DC/CA setup/resume | vivo |
| [R4-2312129](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312129.zip) | CR on Conditional handover including target MCG and candidate SCG for CPC for FR1-FR1 in NR-DC | vivo |
| [R4-2312223](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312223.zip) | Discussion on general aspects and scenarios of L1/L2 triggered inter-cell mobility | ZTE Corporation |
| [R4-2312224](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312224.zip) | Discussion on L1-RSRP measurement requirements | ZTE Corporation |
| [R4-2312225](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312225.zip) | Discussion on L1/L2 inter-cell mobility delay requirements | ZTE Corporation |
| [R4-2312226](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312226.zip) | Discussion on the feasibility of UE based TA measurement | ZTE Corporation |
| [R4-2312227](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312227.zip) | Discussion on the improvement on SCell/SCG setup delay | ZTE Corporation |
| [R4-2312228](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312228.zip) | Discussion on Enhanced CHO configurations | ZTE Corporation |
| [R4-2312230](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312230.zip) | Reply LS on on beam application time, contents of cell switch command, TCI state activation and UE based TA measurement for LTM | ZTE Corporation |
| [R4-2312283](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312283.zip) | Discussion on improvement on SCell/SCG setup delay | LG Electronics Inc. |
| [R4-2312421](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312421.zip) | Discussion on general aspects on L1/L2 based inter-cell mobility | Huawei, HiSilicon |
| [R4-2312422](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312422.zip) | Discussion on L1-RSRP measurement requirements | Huawei, HiSilicon |
| [R4-2312423](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312423.zip) | Discussion on L1/L2 inter-cell mobility delay requirements | Huawei, HiSilicon |
| [R4-2312424](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312424.zip) | Discussion on beam application and SFN alignment for L1/L2-based inter-cell mobility | Huawei, HiSilicon |
| [R4-2312425](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312425.zip) | Discussion on improvement on FR2 SCell/SCG setup/resume | Huawei, HiSilicon |
| [R4-2312426](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312426.zip) | Discussion on Enhanced CHO configurations | Huawei, HiSilicon |
| [R4-2312427](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312427.zip) | Conditional handover including target MCG in FR1 and target SCG in FR2 in NR-DC | Huawei, HiSilicon |
| [R4-2312521](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312521.zip) | Discussion on LS response for beam application time | Nokia, Nokia Shanghai Bell |
| [R4-2312522](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312522.zip) | Discussion on LTM cell switch delay requirements | Nokia, Nokia Shanghai Bell |
| [R4-2312523](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312523.zip) | Discussion on TCI state activation before LTM cell switch | Nokia, Nokia Shanghai Bell |
| [R4-2312524](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312524.zip) | On CHO enhancements | Nokia, Nokia Shanghai Bell |
| [R4-2312534](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312534.zip) | Discussion on L1-RSRP measurement requirements of L1/L2 based inter-cell mobility | China Telecom |
| [R4-2312659](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312659.zip) | On general and scenarios of LTM | OPPO |
| [R4-2312660](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312660.zip) | On L1-RSRP measurement of LTM | OPPO |
| [R4-2312661](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312661.zip) | On L1L2 inter-cell mobility delay requirements | OPPO |
| [R4-2312662](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2312662.zip) | On improvement on FR2 SCellSCG setupresume | OPPO |
| [R4-2313200](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313200.zip) | Discussion on UE-based TA measurement | Sony |
| [R4-2313298](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313298.zip) | Discussion on general aspects in R18 LTM | vivo |
| [R4-2313299](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313299.zip) | Discussion on L1 measurements in R18 LTM | vivo |
| [R4-2313300](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313300.zip) | Discussion on cell switch delay requirements in R18 LTM | vivo |
| [R4-2313301](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313301.zip) | Reply LS on UE based TA management for R18 LTM | vivo |
| [R4-2313454](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313454.zip) | Discussion on Improvement on SCell/SCG setup delay | Nokia, Nokia Shanghai Bell |
| [R4-2313455](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313455.zip) | Draft LS on improvement on FR2 SCell/SCG setup delay | Nokia, Nokia Shanghai Bell |
| [R4-2313456](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313456.zip) | General aspects and scenarios | Nokia, Nokia Shanghai Bell |
| [R4-2313457](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313457.zip) | L1-RSRP measurement requirements | Nokia, Nokia Shanghai Bell |
| [R4-2313509](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313509.zip) | draft CR on CHO with CPAC for FR1+FR2 NR-DC | Ericsson |
| [R4-2313510](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313510.zip) | Discussion on enhanced CHO configurations | Ericsson |
| [R4-2313511](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313511.zip) | Discussion on improvement on Scell SCG setup delay | Ericsson |
| [R4-2313512](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313512.zip) | Discussion for NR-DC with selective activation of cell groups via L3 measurements | Ericsson |
| [R4-2313695](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313695.zip) | Reply LS on beam application time and UE based TA measurement for LTM | Ericsson |
| [R4-2313696](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313696.zip) | On LTM general aspects and scenarios | Ericsson |
| [R4-2313697](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313697.zip) | On L1-RSRP measurement requirements | Ericsson |
| [R4-2313698](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313698.zip) | On LTM delay requirements | Ericsson |
| [R4-2313699](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313699.zip) | Discussion on PDCCH order-based RACH delay requirements | Ericsson |
| [R4-2313764](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313764.zip) | [NR\_Mob\_enh2-Core] Scenario and scope of RRM requirements for LTM | Qualcomm Incorporated |
| [R4-2313765](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313765.zip) | [NR\_Mob\_enh2-Core] L1-RSRP measurement requirements | Qualcomm Incorporated |
| [R4-2313766](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313766.zip) | [NR\_Mob\_enh2-Core] LTM cell switch execution requirements | Qualcomm Incorporated |
| [R4-2313767](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2313767.zip) | [NR\_Mob\_enh2-Core] Delay and Interruption upon LTM PDCCH order based PRACH | Qualcomm Incorporated |
| [R4-2314168](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2314168.zip) | Topic summary for [108][223] NR\_Mob\_enh2\_part1 | Moderator (MediaTek) |
| [R4-2314169](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_108/Docs/R4-2314169.zip) | Topic summary for [108][224] NR\_Mob\_enh2\_part2 | Moderator (Apple) |

10.01.2022 minor adaptations for RAN #95e

04.10.2021 minor adaptations for RAN #94e

08.08.2021 minor adaptations for RAN #93e

17.05.2021 minor adaptations for RAN #92e

28.01.2021 minor adaptations for RAN #91e

09.11.2020 minor adaptations for RAN #90e

31.08.2020 minor adaptations for RAN #89e

20.04.2020 minor adaptations for RAN #88e

18.02.2020 minor adaptations for RAN #87e

14.11.2019 minor adaptations for RAN #86

18.08.2019 minor adaptations for RAN #85

12.05.2019 minor adaptations for RAN #84

27.02.2019 minor adaptations for RAN #83

21.11.2018 completion levels with colours added (for RAN #82)

v04.81 31.07.2018 simplification of template and addition of cross-TSG aspects (for RAN #81)

v04.80 21.05.2018 minor adaptations for RAN #80

v04.79 26.02.2018 minor adaptations for RAN #79

v04.78 18.11.2017 minor adaptations for RAN #78

v04.77 06.08.2017 minor adaptations for RAN #77

v04.76 15.05.2017 minor adaptations for RAN #76

v04.75 31.01.2017 minor adaptations for RAN #75

v04.74 28.10.2016 minor adaptations for RAN #74

v04.73 01.09.2016 adaptations for RAN #73 (time units in extra Excel table, RAN6 reporting included)

v04.72 26.05.2016 adaptations for RAN #72 (introduction of NR & GERAN TUs)

v04.71 10.02.2016 minor adaptations for RAN #71

v04.70 30.10.2015 minor adaptations for RAN #70

v04.69 12.08.2015 minor adaptations for RAN #69

v04.68 21.05.2015 minor adaptations for RAN #68

v04.67 01.02.2015 minor adaptations for RAN #67

v04.66 16.11.2014 minor adaptations for RAN #66

v04.65 16.08.2014 minor adaptations for RAN #65

v04.64 22.05.2014 minor adaptations for RAN #64

v04.63 24.01.2014 restructuring for RAN #63 to cover Core & Perf. in one doc file

v03.62 11.11.2013 section 1.2.3 adapted for RAN #62

v03 11.08.2013 section 1.2.3 added on time budget

v02 07.05.2010 history added, some spelling corrections

v01 13.11.2009 First version of the template