**3GPP TSG RAN Meeting #99 RP-23xxxx**

**Rotterdam, Netherlands, March 20-23, 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-222332 |
| **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:45% | 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#112 (Feb. 2023, Athens, Greece)**

L1 enhancements for inter-cell beam management

Agreement

* RAN1 shares the same understanding as RAN2 on agreement:
	+ The LTM mobility trigger information is conveyed in a MAC CE
* The same MAC CE is used for the LTM triggering.

Agreement

* The agreement on scenario 2 (Beam indication together with cell switch command) at RAN1#111 is further clarified as the following:
	+ Beam indication for the target cell(s) is conveyed in the MAC CE used for LTM triggering for scenario 2

Agreement

* For L1-RSRP measurement RS configuration
	+ For SSB based L1-RSRP measurement:
		- As a starting point, at least the following information needs to be provided to a UE, e.g.
			* For intra- and inter- frequency: PCI or logical ID (e.g., as being defined in R17 ICBM), time domain (e.g. SMTC or periodicity and SSB position in burst)
			* For inter-frequency: frequency domain location (e.g. center frequency), SCS
			* FFS: transmission power (for pathloss calculation)
		- Note: other parameters included in the configuration can be further discussed
		- Including above agreement into the LS
	+ The detailed design of RRC structure is up to RAN2, and send an LS to RAN2 to request to work on the RRC structure design on the measurement configuration.
		- Following RAN1 understanding will be provided in the LS
			* RAN1 has discussed the following configuration options for L1 measurement configurations for SSB till RAN1#112:
				+ Option 1) Configurations for L1 measurement RS is provided under ServingCellConfig for the serving cells

is useful to reuses the mechanism for Rel-17 ICBM and necessary information to support inter-frequency measurement will be added there.

* + - * + Option 2) Configurations for L1 measurement RS is provided separately from ServingCellConfig for the serving cells and CellGroupConfig for the candidate cells

is useful to avoid the duplicated configurations for L1 measurement RSs, [and avoid UE to process configurations ~~for L1 measurement RS~~ provided under CellGroupConfig for the candidate cells]

* + - * + Option 3) Configurations for L1 measurement RS is provided under CellGroupConfig for the candidate cells

can achieve the similar benefit as Option 2) by directly referring to the candidate cell configurations.

* + - * Note RAN2 has a full flexibility to design the whole RRC structure design.
			* RAN1 believes this is RAN2 expert region, and respectfully asks RAN2 to finalize the RRC structure design after RAN1 finalizes the discussion on RRC parameters.
			* It is noted that RAN1 foresees the necessity of similar discussions on TCI state pool for candidate cells and L1 measurement report configurations.

Agreement

* Send an LS to RAN2,3,4 on the RAN1 agreements in this meeting
	+ All agreements in AI 9.12.1 and 9.12.2 in RAN1#112 are included
	+ The LS contents agreed in AI 9.12.1 (on L1 measurement configuration) and AI 9.12.2 (on RAR) are also included

Agreement

* At least for Rel-17 unified TCI framework based beam indication included in cell switch command (i.e. scenario 2), beam indication applies to signals/channels that follow or are configured to follow Rel-17 unified TCI at the target cell(s)
* FFS: beam indication for mTRP case

Agreement

Draft LS R1-2302193 is endorsed in principle by appending latest agreements.

Agreement

Final LS R1-2302194 is endorsed.

Timing advance management to reduce latency

**Agreemment**

For Rel-18 LTM, Random Access Preamble indices and indication of RACH occasions with the associated SSB indices are configured for each candidate cell.

Note: the detailed signalling is left to RAN2

**Agreement**

The PDCCH order from the source cell contains the indication of candidate cell.

* The reserved bit(s) in DCI format 1\_0 for PDCCH order can be used for indication of cell identity

**Agreement**

For PDCCH ordered-RACH for candidate cell(s), RAR reception can be configured/indicated

* If reception of RAR is not configured/indicated (without RAR)
	+ TA value of candidate cell is indicated in cell switch command
	+ FFS: whether UE should re-transmit PRACH when reception of RAR is not configured/indicated
	+ FFS: how UE determine the transmit power of subsequent PRACH triggered by PDCCH order
* If reception of RAR is configured/indicated (with RAR), FFS
	+ whether RAR is received fromserving cell or candidate cell
		- if RAR is received from candidate cell, whether Type1-PDCCH CSS of the candidate cell is configured to the UE
	+ content of RAR
* FFS: signaling for configuration/indication of whether RAR needs to be received
* UE can report the support combination of with RAR only and without RAR only, where support of one default scheme is the baseline UE approach for LTM
* Send LS to RAN2 and RAN3 to check the feasibility about this agreement
* Note: Definition of candidate cells is up to RAN2

**Agreement**

* For PDCCH-order based RACH for TA measurement for candidate cells, legacy CBRA is not supported

**Agreement**

on whether UE should initiate re-transmit PRACH when reception of RAR is not configured/indicated, down select one from the following alternatives.

* Alt 1: UE autonomous re-transmission of PRACH is not allowed (e.g., by setting the number of allowed PRACH transmission to the minimum value of *PreambleTransMax*=1)
	+ Alt 2: UE autonomous Re-transmission of PRACH is allowed,
		- The number of PRACH transmission will be defined e.g. set the times of RACH transmission to the minimum value of *PreambleTransMax*

**Agreement**

If reception of RAR is configured/indicated, RAR contains at least TA of candidate cell.

* The maximum number of TA values memorized by UE is a UE capability
* FFS: whether other parameters such as UE ID, candidate cell ID etc. is contained in RAR

**Agreement**

Whether RAR needs to be received is configured by RRC.

**Agreement**

study at least the following issues on PDCCH-order based PRACH for candidate cell that is not UL serving cell, i.e. without PUCCH/PUSCH configured

* Whether gap between the DCI and PRACH longer than timeline defined in spec is needed
* Any impact/interruption on UL Tx of serving CCs due to the PRACH Tx

Working Assumption

UE-based TA measurement (UE derives TA based on Rx timing difference between current serving cell and candidate cell as well as TA value for the current serving cell) is supported.

* Corresponding UE capability is to be introduced to support UE-based TA measurement
* For a UE reports support of this capability, configuration of UE-based TA measurement is supported
* FFS: other impacts on RAN1 spec

**Agreemment**

For Rel-18 LTM, Random Access Preamble indices and indication of RACH occasions with the associated SSB indices are configured for each candidate cell.

Note: the detailed signalling is left to RAN2

**Agreement**

The PDCCH order from the source cell contains the indication of candidate cell.

* The reserved bit(s) in DCI format 1\_0 for PDCCH order can be used for indication of cell identity

#### 2.1.2 Remaining Open issues

L1 enhancements for inter-cell beam management

* The necessary mechanism, e.g., signaling and UE capability to support DL synchronization for candidate cells before cell switch command.
* Whether and how to support UE event triggered report for L1 measurement, e.g., exact definition of events, report container, resource allocation for UE event triggered report, interaction with filtered L1 measurement results, etc.
* FFS: L1-SINR, CSI-RS based L1-RSRP for candidate cell measurement for LTM.
* FFS: transmission power (for pathloss calculation) needs to be provided to a UE for SSB based L1-RSRP measurement
* FFS: periodic and semi-persistent PUCCH for L1 measurement report.
* FFS: Scenario 1(Beam indication before cell switch command), Scenario 3(Beam indication after cell switch command) for beam indication timing.
* FFS: beam indication for mTRP case in Scenario 2
* FFS: to assess the use case and the benefit of UL measurement instead of/in addition to DL L1 measurement
* RRC structure design considering configurations for L1 measurement RS

Timing advance management to reduce latency

* FFS: signaling for configuration/indication of whether RAR needs to be received
* FFS: whether UE should re-transmit PRACH when reception of RAR is not configured/indicated
* FFS: how UE determine the transmit power of subsequent PRACH triggered by PDCCH order when reception of RAR is not configured/indicated
* FFS whether UE autonomous re-transmission of PRACH is allowed or not when reception of RAR is not configured/indicated
* FFS: whether other parameters such as UE ID, candidate cell ID etc. is contained in RAR when reception of RAR is configured/indicated
* FFS whether RAR is received from serving cell or candidate cell if reception of RAR is configured/indicated (with RAR)
* Whether TA acquisition of candidate cell(s) before cell switch command can be supported when the candidate cell is deactivated SCell.

## 2.2 RAN2

#### 2.2.1 Agreements

**RAN2 #121 (Feb. 2023, Athens, Greece)**

L1/L2-based inter-cell mobility

* Agreed: Usage of reference configuration:

- Candidate delta configuration is applied on top of the reference configuration to form a complete candidate configuration (FFS if done at cell switch or before the cell switch)

- The complete candidate configuration is applied and replacing the current UE configuration (at the time of reconfiguration execution/cell switch), by a RRC reconfiguration procedure that makes replacements of configuration but doesn’t necessarily reset RLC or PDCP.

- To support reconfigurations that requires reset of RLC PDCP, this should be possible (in principle same a full config)

- FFS if more than RLC PDCP should be kept and how much of “replacing” need to be specified.

- FFS if the reference configuration can be derived from the current UE configuration at some point of time.

* Potentially: R2 assumes that LTM without a separate reference configuration (if agreed) could work something like this:

- Alt A: The candidate configuration (which need to be complete) is applied and replacing the current UE configuration (at the time of reconfiguration execution/cell switch), by a RRC reconfiguration procedure that makes replacements of configuration but doesn’t necessarily reset RLC or PDCP. (Same procedure as above)

- Alt B: The candidate configuration (which can be a delta config) is applied to the current UE configuration (at the time of reconfiguration execution/cell switch), by legacy RRC reconfiguration procedure (it is assumed that the network need to coordinate if subsequent reconfigurations shall work, FFS feasibility).

* agree to use Model 1: One RRCReconfiguration message for each candidate target configuration RRCReconfiguration to configure target candidate cells
* Reference config can be empty
* In the RRC procedures, the candidate delta configuration is applied on top of the reference configuration to form a complete candidate configuration when the UE receives the LTM configuration (before the LTM cell switch). UE implementation can postpone that step to the reception of the LTM cell switch command. FFS Discuss early vs late compliance check.
* In the RRC procedures, the complete candidate configuration is applied and replacing the current UE configuration (at the time of reconfiguration execution/cell switch), by a RRC reconfiguration procedure that makes replacements of configuration but doesn’t necessarily reset MAC, RLC or PDCP. FFS whether we can rely on a modified version of the reconfiguration procedure with fullconfig flag set. FFS how to make sure the procedures work in case the LTM candidate configuration is a complete configuration.
* No consensus to support HARQ continuation (and in order to resume discussion some new input may be needed, e.g. quantitative evidence of a serious problem).
* To determine if to reset L2 or not is based on RRC configuration (e.g. set of cells. FFS if separate for RLC, MAC, PDCP).

NR-DC with selective activation of cell groups

* Assume to support the following scenarios of SCG selective activation:
	+ - SN initiated intra-SN SCG selective activation
		- MN initiated inter-SN SCG selective activation
		- SN initiated inter-SN SCG selective activation
* It is assumed that if the UE need to be able to return to a current SCG by conditional procedure, then the network could explicitly configure a candidate configuration for that cell.
* In SCG selective activation, the CPC/CPA configurations of the UE should be released after Pcell change, at least for inter MN (by explicit indication from network, FFS other case).
* R2 assumes that a CPA conditional configuration can be used for CPC (but with different triggering conditions)
* For inter-SN CPC, MN should provide the reference configuration to all candidate T-SNs (in order to generate the T-SN candidate configuration).
* R2 understands that A target SN may include an indication in SN Addition Request Ack for each candidate target PSCell, denoting whether the associated SCG configuration is a delta with respect to the reference SCG configuration.

CHO with target SCG / candidate SCG(s)

* RAN2 agrees to support the simultaneous evaluation of CHO and CPC in Rel-18
* The UE should not need to unpack any of the nested conditional configuration containers in order to measure, acc to agreement above

#### 2.2.2 Remaining Open issues

L1/L2 based inter-cell mobility

* FFS whether ASN.1 decoding and validity/compliance check of candidate cell configuration are performed upon reception of the candidate cells configuration. FFS if this need to be specified.
* FFS if it should be possible to perform SCell activation/deactivation (amongst SCells associated with the candidate configuration) simultaneously with L1 L2 mobility trigger MAC CE (if so, FFS how this is determined).
* FFS how the UE determine the BWPs (for DL and UL) to be used upon the execution of L1/L2 inter-cell mobility
* Procedure of LTM cell switch to be supervised by a timer. Detailed operation and UE behavior with the timer.
* How to indicate UE arrival in the target cell.
* Partial MAC reset in intra-DU, e.g., whether to continue HARQ, BSR, etc., at MAC partial reset.
* Security concerns for LTM when using L1/L2 signalling in L1 measurement report or LTM trigger command.
* Detailed issues and procedure for Inter-DU LTM
* Detailed issues and procedure for early TA Acquisition
* 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 if the reference configuration can be derived from the current UE configuration at some point of time.
	+ FFS whether we can rely on a modified version of the reconfiguration procedure with fullconfig flag set.
	+ FFS how to make sure the procedures work in case the LTM candidate configuration is a complete configuration.

NR-DC with selective activation of cell groups

* Whether to define a term for NR-DC with selective activation of cell group and what the term is.
* Whether to support selective activation for MCG.
* How many subsequent conditional changes are targeted, and potential impacts.
* Security issues, LS sent to SA3 asking the existing handling of sk-counter/ S-KgNB is applicable when UE continues switching between the candidate target PSCells multiple times.

CHO with target SCG / candidate SCG(s)

* Overall procedures.

## 2.3 RAN3

#### 2.3.1 Agreements

**RAN3 #119 (Feb. 2023, Athens, Greece)**

BL CRs to TS 38.401 and TS38.473 are endorsed.

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

A TP R3-231026 for L1L2Mob BLCR for TS 38.401 is agreed.

A LS R3-230889 on Approaches during execution for inter-DU LTM to RAN2 Cc RAN1 is agreed.

*DL/UL TEID handling during LTM configuration:*

* For intra-DU LTM, the gNB-CU assigns a new UL GTP TEID for each DRB and provides it to the gNB-DU via UE Context Modification Request message(s). The gNB-DU assigns the new DL GTP TEIDs per DRB per candidate cell (whether it should be per candidate cell needs to be further discussed) and provides them back to the gNB-CU in UE Context Modification Response message(s).
* For inter-DU LTM, the gNB-CU assigns a new UL GTP TEID for each DRB and provides it to the target gNB-DU via UE Context Setup Request message(s). The target gNB-DU assigns the new DL GTP TEIDs per DRB per candidate cell (whether it should be per candidate cell needs to be further discussed) and provides them back to the gNB-CU in UE Context Setup Response message(s).

*Data transmission:*

* Intra-CU UP case: CU will start data transmission after LTM cells switch signaling from DU including target cell ID.

Selective activation of cell groups

* Enhance XnAP and F1AP signaling to support NR Selective Activation.
* Introduce a new indicator to the S-NODE ADDITION REQUEST message over Xn to indicate that the request is for Selective Activation.

Support CHO in NR-DC

* Confirm the early data forwarding for CHO with multiple SCGs is a new problem.

#### 2.3.2 Remaining Open issues

Signaling support for L1/L2 based inter-cell mobility

* Details of a single solution for network signaling design on LTM to support all agreed scenarios
* The following open issues on user plane handling in intra-DU L1/L2 mobility as well as inter-DU case are raised for further study:
	+ a) F1-U UL/DL TEID handling as in intra-DU legacy HO.
	+ b) DDDS on F1-U
	+ c) E1 impact, such as setup, update or remove resources at gNB-CU-UP
	+ d) Data forwarding
* Details of gNB-CU initiating configuration of candidate target cell(s) for LTM

Selective activation of cell groups

* Signaling optimizations on support of selective activation of cell groups.

Support CHO in NR-DC

* Signaling optimizations on support of direct data forwarding.

FFS on solution to avoid unnecessary signaling exchange between MN and the target SN for CHO + NR-DC.

## 2.4 RAN4

#### 2.4.1 Agreements

**RAN4 #106 (Feb. 2023, Athens, Greece)**

* WF on NR Mobility Enhancements RRM requirements (part 1) approved in [1]
* WF on NR Mobility Enhancements RRM requirements (part 2) approved in [2]
* Updated work plan of R18 Further NR Mobility Enhancements approved in [3]
* Reply LS on L1 intra- and inter- frequency measurement and configurations for L1/L2-based inter-cell mobility [4]

L1/L2 based inter-cell mobility

* Put RF discussion on-hold until RRM has the corresponding conclusions.
* Discuss what interruption requirements, scheduling restriction and measurement restriction to define instead of discussing whether simultaneous Rx/Tx in source cell and target cell is allowed.
* It is unnecessary to define sync and async scenarios for LTM requirements.
* Not consider FR2-2 in R18 LTM.
* In FR2:
	+ Fine beam can be assumed for L1 measurement on intra-frequency neighbor cell. FFS on inter-frequency neighbor cell.
	+ FFS whether to consider rough beam also for L1 measurement on neighbor cell (including intra and inter-frequency).
* FFS: For intra-frequency L1-RSRP measurement with fine beam in FR2, L1-RSRP can be measured within SMTC if SSB occasions are fully overlapped with SMTC.
* For SSB based intra-frequency L1 measurement, support the scenario that RTD between the SSBs of serving cell and neighbour cell on the same carrier is larger than CP length of the corresponding SCS with additional UE capability.
	+ Note: the need for UE capability can be further discussed subject to the outcome of the discussion on measurement framework
* The SFN offset (sfn-SSB-Offset) alignment can be relaxed if UE performs L3 measurement before L1 measurement.
* Introduce inter-frequency L1-RSRP measurement requirements in Rel-18 LTM
	+ Option 1: Inter-frequency L1-RSRP measurements without gap
	+ Option 2: Inter-frequency L1-RSRP measurements with gap
	+ Option 3: Inter-frequency L1-RSRP measurements with gap and without gap
* Only define requirements for serving cell change within one CG, e.g., not define cell switch delay requirements for the case “PCell change with PSCell change”.
* Define cell switch delay requirements for:
	+ PCell change without SCell change
	+ PSCell change without SCell change
* Cell switch delay for PCell/PSCell starts at UE receives cell switch command.
* For RACH-based cell switch, cell switch delay for PCell/PSCell ends at UE transmitting PRACH to the target cell.

NR-DC with selective activation of cell groups

* Define requirements for subsequent CPC delay

Improvement on FR2 Scell/SCG setup/resume delay

* RAN4 shall focus on inter-band target cell in FR2. If final solution to be agreed can cover intra-band and FR1 without extra standardization effort, it is unnecessary to exclude these two scenarios.
* Solutions to improve SCell/SCG setup delay
	+ UE is allowed to reuse existing measurement, including legacy measurement for cell re-selection and EMR.
	+ UE is allowed to perform addition measurement starting from RRC connection setup/resume procedure.
	+ RAN4 can continue discussion on the feasibility of doing additional measurement starting from RRC setup/resume, and requirements shall be defined if feasible solution is agreed.

#### 2.4.2 Remaining Open issues

L1/L2 based inter-cell mobility

* Specify RF requirement(s) if any
* RRM requirements to specify
	+ Specify L1/L2 inter-cell mobility delay and analyze each component of L1/L2 inter-cell mobility delay.
	+ Discuss how to specify intra-frequency L1-RSRP measurement delay requirements when RTD of serving cell and neighbor cell is larger than CP
	+ Discuss how to specify inter-frequency L1-RSRP measurement delay requirements (after the supported scenario is clear)
	+ Discuss whether and how to specify pre- DL and/or UL synchronization requirements (wait for RAN1/2 input)
	+ Identify other potential RRM requirements to specify
	+ Identify and discuss the interruption requirements to specify
* 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

Study of improvement on FR2 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

NR-DC with selective activation of cell groups

* Specify RRM requirements for subsequent CPAC

CHO with target SCG / candidate SCG(s)

* Specify RRM requirements for CHO with CPAC (Waiting for RAN2 input)
* Discuss whether and how to define requirements for CHO with PSCell

## 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. R4-2303175 WF on NR Mobility Enhancements RRM requirements (part 1), MediaTek inc.
2. R4-2303309 WF on NR Mobility Enhancements RRM requirements (part 2), Apple
3. R4-2300926 Updated work plan of R18 Further NR Mobility Enhancements, MediaTek Inc., Apple
4. R4-2303308 Reply LS on L1 intra- and inter- frequency measurement and configurations for L1/L2-based inter-cell mobility, CATT

**RAN1#112 (Feb. 2023, Athens, Greece)**

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| [R1-2300056](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300056.zip) | L1 enhancements for inter-cell beam management | FUTUREWEI |
| [R1-2300057](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300057.zip) | Discussion of the merits of UE based RACH-less TA acquisition for LTM | FUTUREWEI |
| [R1-2300128](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300128.zip) | L1 enhancements for inter-cell beam management | Huawei, HiSilicon |
| [R1-2300129](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300129.zip) | Timing advance management to reduce latency | Huawei, HiSilicon |
| [R1-2300145](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300145.zip) | FL plan on L1 enhancements for LTM at RAN1#112 | Moderator (Fujitsu) |
| [R1-2300146](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300146.zip) | FL summary 1 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu) |
| [R1-2300188](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300188.zip) | L1 enhancements for inter-cell beam management | ZTE |
| [R1-2300189](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300189.zip) | Enhancements on TA management to reduce latency | ZTE |
| [R1-2300239](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300239.zip) | Discussion on L1 enhancements for inter-cell beam management | Spreadtrum Communications |
| [R1-2300240](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300240.zip) | Discussion on timing advance management to reduce latency | Spreadtrum Communications |
| [R1-2300311](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300311.zip) | Discussions on Inter-cell beam management enhancement | OPPO |
| [R1-2300312](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300312.zip) | Discussions on Timing Advance Management | OPPO |
| [R1-2300335](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300335.zip) | L1 enhancements to inter-cell beam management | Ericsson |
| [R1-2300384](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300384.zip) | Layer-1 Enhancements for L1/L2-triggered Mobility | Nokia, Nokia Shanghai Bell |
| [R1-2300385](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300385.zip) | Timing Advance Management for L1/L2-triggered Mobility | Nokia, Nokia Shanghai Bell |
| [R1-2300474](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300474.zip) | Discussion on L1 enhancements for L1L2 mobility | vivo |
| [R1-2300475](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300475.zip) | Discussion on TA management for L1L2 mobility | vivo |
| [R1-2300488](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300488.zip) | Discussion on L1 enhancements for inter-cell beam management | FGI |
| [R1-2300490](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300490.zip) | Discussion on TA management for LTM | FGI |
| [R1-2300517](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300517.zip) | L1 enhancements for inter-cell beam management | Lenovo |
| [R1-2300518](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300518.zip) | Timing advancement management for L1L2 mobility | Lenovo |
| [R1-2300536](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300536.zip) | Enhancements on inter-cell beam management for mobility | LG Electronics |
| [R1-2300537](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300537.zip) | Enhancements on TA management for mobility | LG Electronics |
| [R1-2300557](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300557.zip) | Discussion on L1 enhancements for inter-cell beam management in LTM | Xiaomi |
| [R1-2300558](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300558.zip) | Discussion on Timing advance management | Xiaomi |
| [R1-2300662](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300662.zip) | Further discussions on L1 enhancements for inter-cell beam management | CATT |
| [R1-2300663](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300663.zip) | Discussion on time advance management to reduce latency | CATT |
| [R1-2300757](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300757.zip) | Views on L1 enhancements for inter-cell beam management | Fujitsu |
| [R1-2300769](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300769.zip) | Discussion on L1 enhancements for inter-cell beam management | NEC |
| [R1-2300891](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300891.zip) | Discussion on L1 enhancements for inter-cell beam management | Sony |
| [R1-2300967](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300967.zip) | L1 Enhancements for Inter-cell Beam Management | Intel Corporation |
| [R1-2300968](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2300968.zip) | On Timing Advance Management | Intel Corporation |
| [R1-2301024](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301024.zip) | Discussion on L1 enhancements for inter-cell beam management | CMCC |
| [R1-2301025](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301025.zip) | Discussion on timing advance management to reduce latency | CMCC |
| [R1-2301035](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301035.zip) | Discussion on TA management to reduce latency | KDDI Corporation |
| [R1-2301095](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301095.zip) | Timing advance management for L1/L2 Mobility | Ericsson |
| [R1-2301161](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301161.zip) | Discussion on inter-cell beam management | Rakuten Mobile, Inc |
| [R1-2301167](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301167.zip) | Discussion on L1 enhancements for inter-cell beam management | Google |
| [R1-2301168](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301168.zip) | Discussion on timing advance management to reduce latency | Google |
| [R1-2301169](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301169.zip) | L1 enhancements for inter-cell beam management | InterDigital, Inc. |
| [R1-2301170](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301170.zip) | Timing advance management to reduce latency | InterDigital, Inc. |
| [R1-2301208](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301208.zip) | Discussion on L1 measurement configuration for LTM | Panasonic |
| [R1-2301287](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301287.zip) | On L1 enhancements for inter-cell beam management | Samsung |
| [R1-2301288](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301288.zip) | Candidate cell TA acquisition for NR L1/L2 mobility enhancement | Samsung |
| [R1-2301369](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301369.zip) | L1 Enhancements to Inter-Cell Beam Management | Apple |
| [R1-2301370](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301370.zip) | Timing advance management for L1/L2 Mobility | Apple |
| [R1-2301436](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301436.zip) | L1 Enhancements for Inter-Cell Beam Management | Qualcomm Incorporated |
| [R1-2301437](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301437.zip) | TA management to reduce latency for L1/L2 based mobility | Qualcomm Incorporated |
| [R1-2301514](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301514.zip) | Discussion on L1 enhancements for inter-cell mobility | NTT DOCOMO, INC. |
| [R1-2301515](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301515.zip) | Timing advance enhancement for inter-cell mobility | NTT DOCOMO, INC. |
| [R1-2301576](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301576.zip) | L1 enhancements for inter-cell beam management | MediaTek Inc. |
| [R1-2301583](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301583.zip) | UL Timing management to reduce handover latency | MediaTek Inc. |
| [R1-2301893](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2301893.zip) | Moderator summary on Timing advance management for LTM: Round 1 | Moderator (CATT) |
| [R1-2302001](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2302001.zip) | FL summary 2 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu) |
| [R1-2302002](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2302002.zip) | FL summary 3 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu) |
| [R1-2302016](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2302016.zip) | Moderator summary on Timing advance management for LTM: Round 2 | Moderator (CATT) |
| [R1-2302068](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2302068.zip) | Session notes for 9.12 (Further NR mobility enhancements) | Ad-Hoc Chair (CMCC) |
| [R1-2302075](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2302075.zip) | Moderator summary on Timing advance management for LTM: Round 3 | Moderator (CATT) |
| [R1-2302165](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2302165.zip) | Moderator summary on Timing advance management for LTM: Round 4 | Moderator (CATT) |
| [R1-2302193](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2302193.zip) | DRAFT LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | Moderator (Fujitsu), CATT |
| [R1-2302194](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2302194.zip) | LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | RAN1, Fujitsu, CATT |
| [R1-2302195](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2302195.zip) | FL summary 4 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu) |
| [R1-2302196](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112/Docs/R1-2302196.zip) | Final FL summary on L1 enhancements for inter-cell beam management | Moderator (Fujitsu) |

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| [R2-2300016](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300016.zip) | LS on RAN1 agreements for L1/L2-based inter-cell mobility (R1-2212948; contact: Fujitsu, CATT) | RAN1 |
| [R2-2300033](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300033.zip) | Reply LS on L1 intra- and inter- frequency measurement and configurations for L1/L2-based inter-cell mobility (R3-226829; contact: ZTE, CATT, Fujitsu) | RAN3 |
| [R2-2300056](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300056.zip) | Reply LS on L1 intra- and inter- frequency measurement and configurations for L1/L2-based inter-cell mobility (R4-2220733; contact: CATT) | RAN4 |
| [R2-2300092](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300092.zip) | Discussion on Applicable Scenarios and Procedure | CATT |
| [R2-2300093](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300093.zip) | Discussions on Cell Switch | CATT |
| [R2-2300094](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300094.zip) | Discussion on Selective Activation of Cell Groups in NR-DC | CATT |
| [R2-2300095](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300095.zip) | Discussion on CHO including target MCG and candidate SCGs | CATT |
| [R2-2300121](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300121.zip) | Further Analysis on IEs to Include in LTM Candidate Cell Configuration | CATT |
| [R2-2300122](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300122.zip) | Discussion on RRC Remaining Issues for LTM | CATT |
| [R2-2300181](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300181.zip) | MAC\_RLC Reset and BWP Handling for LTM | Samsung Electronics Co., Ltd |
| [R2-2300220](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300220.zip) | LTM stage-2 design models | Lenovo |
| [R2-2300221](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300221.zip) | Details of Early TA work | Lenovo |
| [R2-2300232](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300232.zip) | Securing LTM | Lenovo |
| [R2-2300246](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300246.zip) | L1 Measurement Report for Cell Switch | NEC |
| [R2-2300277](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300277.zip) | RRC Aspects of L1L2-triggered Mobility | MediaTek Inc. |
| [R2-2300278](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300278.zip) | Triggering MAC CE for L1L2-triggered Mobility | MediaTek Inc. |
| [R2-2300281](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300281.zip) | SCG Selective Activation in NR-DC | Qualcomm Incorporated |
| [R2-2300282](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300282.zip) | CHO with multiple candidate SCGs | Qualcomm Incorporated |
| [R2-2300314](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300314.zip) | Discussion on scenarios and aspects with other WGs | vivo |
| [R2-2300315](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300315.zip) | Configurations of Candidate Cell for LTM | vivo |
| [R2-2300316](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300316.zip) | Discussion on dynamic switch for LTM | vivo |
| [R2-2300317](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300317.zip) | Discussion on NR-DC with selective activation cell of groups | vivo |
| [R2-2300318](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300318.zip) | Discussion on evaluation and execution of CHO with CPAC | vivo |
| [R2-2300319](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300319.zip) | Discussion on CHO with CPAC signaling procedure | vivo |
| [R2-2300350](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300350.zip) | Configuration and upper layer handling for sequential LTM | Futurewei |
| [R2-2300351](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300351.zip) | Discussion on issues with L1L2 dynamic mobility | Futurewei |
| [R2-2300352](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300352.zip) | Discussion on selective activation of cell groups and sequential LTM | Futurewei |
| [R2-2300372](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300372.zip) | LTM Procedure and Support of Inter-DU LTM | MediaTek Inc. |
| [R2-2300373](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300373.zip) | Partial MAC Reset during Intra-DU LTM | MediaTek Inc. |
| [R2-2300375](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300375.zip) | 38.300 running CR for introduction of NR further mobility enhancements | MediaTek Inc. |
| [R2-2300379](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300379.zip) | Discussion on CHO with CPAC | KDDI Corporation |
| [R2-2300380](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300380.zip) | Discussion on general pocedure for LTM | OPPO |
| [R2-2300381](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300381.zip) | Discussion on partial MAC reset for LTM | OPPO |
| [R2-2300382](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300382.zip) | Open issues on dynamic switching for LTM | OPPO |
| [R2-2300383](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300383.zip) | Discussion on configuration related issues for LTM | OPPO |
| [R2-2300384](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300384.zip) | Discussion on selective activation of SCGs for NR-DC | OPPO |
| [R2-2300385](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300385.zip) | Discussions on CHO including target MCG and candidate SCGs | OPPO |
| [R2-2300400](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300400.zip) | Procedure descriptions of LTM | Intel Corporation |
| [R2-2300401](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300401.zip) | Discussion on CHO including candidate SCGs | Intel Corporation |
| [R2-2300402](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300402.zip) | Discussion on LTM RRC model | Intel Corporation |
| [R2-2300403](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300403.zip) | Discussion on LTM cell switch | Intel Corporation |
| [R2-2300404](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300404.zip) | Discussion on selective activation of cell groups | Intel Corporation |
| [R2-2300408](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300408.zip) | Discussion on the early TA acquisition | Intel Corporation |
| [R2-2300465](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300465.zip) | Further discussion on selective activation of cell groups | Vodafone |
| [R2-2300473](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300473.zip) | On Early TA Acquisition in LTM | Nokia, Nokia Shanghai Bell |
| [R2-2300474](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300474.zip) | On RRC Configuration for LTM | Nokia, Nokia Shanghai Bell |
| [R2-2300475](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300475.zip) | On Conditional Handover with Candidate SCGs for CPAC | Nokia, Nokia Shanghai Bell, Huawei, HiSilicon, InterDigital Inc., CATT |
| [R2-2300567](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300567.zip) | Race conditions in LTM | Qualcomm Inc. |
| [R2-2300568](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300568.zip) | Configuring measurements and reporting of LTM cell | Qualcomm Inc. |
| [R2-2300569](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300569.zip) | RRC Aspects of LTM | Qualcomm Inc. |
| [R2-2300570](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300570.zip) | Dynamic switch in LTM | Qualcomm Inc. |
| [R2-2300575](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300575.zip) | LTM Overall Procedure | Interdigital, Inc. |
| [R2-2300576](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300576.zip) | LTM Measurement considerations | Interdigital, Inc. |
| [R2-2300577](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300577.zip) | LTM candidate configurations | Interdigital, Inc. |
| [R2-2300578](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300578.zip) | LTM cell switch and triggering | Interdigital, Inc. |
| [R2-2300649](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300649.zip) | Discussion on NR-DC with SCG selective activation | Spreadtrum Communications |
| [R2-2300650](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300650.zip) | Discussion on CHO with CPAC in NR-DC | Spreadtrum Communications |
| [R2-2300653](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300653.zip) | Discussion on cell switch for LTM | Spreadtrum Communications |
| [R2-2300698](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300698.zip) | LTM Failure Handling | FGI |
| [R2-2300740](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300740.zip) | CHO with Candidate SCGs | Apple |
| [R2-2300752](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300752.zip) | Execution condition in selective SCG activation | Apple |
| [R2-2300766](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300766.zip) | On Measurement and reference config for LTM | Apple |
| [R2-2300767](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300767.zip) | MAC TA RAN2 aspects for LTM | Apple |
| [R2-2300768](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300768.zip) | LTM cell switch and link failure handling | Apple |
| [R2-2300804](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300804.zip) | Discussion on L2 handling for LTM | NEC |
| [R2-2300817](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300817.zip) | Discussion on selective SCG activation | MediaTek Inc. |
| [R2-2300818](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300818.zip) | Discussion on CHO with candidate SCG | MediaTek Inc. |
| [R2-2300921](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300921.zip) | Discussion on NR-DC with selective activation of the cell groups. | DENSO CORPORATION |
| [R2-2300924](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300924.zip) | Further analysis on configuration and signalling aspects for SAPC | Nokia, Nokia Shanghai Bell |
| [R2-2300949](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300949.zip) | On SCG selective activation | Lenovo |
| [R2-2300963](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300963.zip) | Compliance check for LTM configuration | Lenovo |
| [R2-2300964](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2300964.zip) | Consideration on CHO with candidate SCG for CPAC | Lenovo |
| [R2-2301007](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301007.zip) | Discussion on NR-DC with selective activation cell of groups | KDDI Corporation |
| [R2-2301026](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301026.zip) | RRC aspects of L1/L2 triggered mobility | Fujitsu |
| [R2-2301027](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301027.zip) | Cell switch for L1/L2 triggered mobility | Fujitsu |
| [R2-2301060](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301060.zip) | Subsequent change of SCGs and selective activation | InterDigital Inc. |
| [R2-2301062](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301062.zip) | CHO with associated SCG | InterDigital Inc. |
| [R2-2301113](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301113.zip) | Remaining stage-2 issues for LTM | Xiaomi |
| [R2-2301114](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301114.zip) | Handling of connection failure for LTM | Xiaomi |
| [R2-2301115](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301115.zip) | L2 handling at cell switch | Xiaomi |
| [R2-2301150](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301150.zip) | RACH-less cell switch in LTM | Huawei, HiSilicon |
| [R2-2301151](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301151.zip) | L2 behaviours and cell switch solutions in LTM | Huawei, HiSilicon |
| [R2-2301152](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301152.zip) | CHO including target MCG and candidate SCGs for CPC/CPA | Huawei, HiSilicon |
| [R2-2301153](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301153.zip) | Discussion on partial MAC reset | KDDI Corporation |
| [R2-2301154](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301154.zip) | RRC aspects in LTM | NEC |
| [R2-2301155](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301155.zip) | Cell switch overview | NEC |
| [R2-2301156](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301156.zip) | Discussions on selective SCG activation | NEC |
| [R2-2301196](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301196.zip) | Discussion on procedures for LTM | Ericsson |
| [R2-2301197](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301197.zip) | Discussion on RRC aspects for LTM | Ericsson |
| [R2-2301198](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301198.zip) | TP for RRC models of LTM | Ericsson |
| [R2-2301199](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301199.zip) | Partial and full MAC reset in LTM | Ericsson |
| [R2-2301216](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301216.zip) | Discussion on candidate cell configuration and maintenance | ZTE Corporation, Sanechips |
| [R2-2301217](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301217.zip) | Remaining issues for LTM execution | ZTE Corporation, Sanechips |
| [R2-2301218](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301218.zip) | Discussion on selective activation of the cell groups | ZTE Corporation, Sanechips |
| [R2-2301219](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301219.zip) | Discussion on CHO with candidate SCGs | ZTE Corporation, Sanechips |
| [R2-2301234](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301234.zip) | Discussion CHO including target MCG and candidate SCGs for CPAC | CMCC |
| [R2-2301255](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301255.zip) | Discussion on NR-DC with selective activation of cell groups | CMCC |
| [R2-2301258](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301258.zip) | Considerations on general aspects of LTM | CMCC |
| [R2-2301259](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301259.zip) | Considerations on failure handling | CMCC |
| [R2-2301260](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301260.zip) | Considerations on measurement configuration | CMCC |
| [R2-2301261](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301261.zip) | Considerations on cell switch | CMCC |
| [R2-2301289](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301289.zip) | On resetting the UP entities | Nokia, Nokia Shanghai Bell |
| [R2-2301325](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301325.zip) | Discussion on potential enhancement before LTM cell switch | Samsung |
| [R2-2301328](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301328.zip) | Considerations on CHO with CPA/CPC | Samsung |
| [R2-2301340](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301340.zip) | NR-DC with selective activation | Ericsson |
| [R2-2301341](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301341.zip) | CHO with associated CPC or CPA | Ericsson |
| [R2-2301358](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301358.zip) | LTM procedure descriptions and stage 2 aspects | Huawei, HiSilicon |
| [R2-2301359](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301359.zip) | RRC aspects for LTM | Huawei, HiSilicon |
| [R2-2301360](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301360.zip) | NR-DC selective activation of SCG | Huawei, HiSilicon |
| [R2-2301394](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301394.zip) | Discussion on RRC configurations of LTM | Xiaomi |
| [R2-2301395](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301395.zip) | Discussion on NR-DC with selective activation of the cell groups | Xiaomi |
| [R2-2301396](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301396.zip) | Discussion on CHO with CPAC | Xiaomi |
| [R2-2301412](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301412.zip) | Considerations on Cell Switch Triggering in LTM | Nokia, Nokia Shanghai Bell |
| [R2-2301500](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301500.zip) | Discussion on LTM timer operation | LG Electronics |
| [R2-2301501](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301501.zip) | Remaining issues of LTM execution procedure | LG Electronics |
| [R2-2301514](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301514.zip) | Discussion on L2 reset for LTM | LG Electronics Inc. |
| [R2-2301532](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301532.zip) | Discussion on L1L2-triggered mobility | ASUSTeK |
| [R2-2301549](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301549.zip) | Conditional handover in L2/L1 mobility | Apple |
| [R2-2301562](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301562.zip) | RRC issues on the LTM | Samsung |
| [R2-2301563](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301563.zip) | Considerations on Cell Switch for LTM | Samsung |
| [R2-2301564](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301564.zip) | Considerations on Subsequent CPAC after SCG Change | Samsung |
| [R2-2301593](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301593.zip) | Discussion on measurement enhancement of L1L2 triggered mobility | Transsion Holdings |
| [R2-2301595](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301595.zip) | Discussion on detailed LTM cell switch procedure | Transsion Holdings |
| [R2-2301597](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301597.zip) | Discussion on Selective Activation of Cell Groups in NR-DC | Transsion Holdings |
| [R2-2301615](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301615.zip) | Candidate cell configuration structure for LTM | LG Electronics Inc. |
| R2-2301621 | Discussion on measurement enhancement of L1L2 triggered mobility | Transsion Holdings |
| R2-2301622 | Discussion on detailed LTM cell switch procedure | Transsion Holdings |
| R2-2301623 | Discussion on Selective Activation of Cell Groups in NR-DC | Transsion Holdings |
| [R2-2301740](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301740.zip) | Selective Cell Group Activation | LG Electronics |
| [R2-2301741](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301741.zip) | Simultaneous Evaluation for CHO with CPAC | LG Electronics |
| [R2-2301789](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301789.zip) | Further Considerations on Cell Switch Command | ZTE Corporation,Sanechips |
| [R2-2301790](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301790.zip) | Further Considerations on Intra-DU LTM and Partial MAC Reset | ZTE Corporation,Sanechips |
| [R2-2301817](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301817.zip) | Discussion on L1 measurement configuration for LTM | NTT DOCOMO INC. |
| [R2-2301818](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301818.zip) | RRC Configurations of LTM | Sharp |
| [R2-2301819](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301819.zip) | Cell Switch for LTM | Sharp |
| [R2-2301820](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301820.zip) | Discussion of selective activation | Sharp |
| [R2-2301842](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301842.zip) | Discussion on scenarios for selective activation of the cell groups | China Telecom |
| [R2-2301846](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301846.zip) | Discussion on Early sync phase of LTM | NTT DOCOMO INC. |
| [R2-2301859](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301859.zip) | Discussion on RACH-less Handover for L1/L2 Triggered Mobility | Rakuten Symphony |
| [R2-2301860](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301860.zip) | Performance Enhancements for L1/L2 Triggered Mobility | Rakuten Symphony |
| [R2-2301874](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301874.zip) | Delayed Resource Reservation for inter gNB-DU L1/L2 Triggered Mobility | Rakuten Symphony |
| [R2-2301888](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301888.zip) | LTM Overall Procedure | Interdigital, Inc. |
| [R2-2301943](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2301943.zip) | Reply LS R2-2213337 LS on security for selective SCG activation (S3-231397; contact: Nokia) | SA3 |
| [R2-2302053](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2302053.zip) | LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM (R1-2302194; contact: Fujitsu, CATT) | RAN1 |
| [R2-2302175](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2302175.zip) | Way Forward on Reference and Candidate Configurations for LTM | MediaTek, Ericsson, Huawei, Nokia, Apple, ZTE |
| [R2-2302290](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121/Docs/R2-2302290.zip) | Pave the way to RRC TP for LTM | Ericsson |
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**RAN3 #119 (Feb. 2023, Athens, Greece)**

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| R3-230011 | LS on RAN1 agreements for L1/L2-based inter-cell mobility | RAN1, Fujitsu, CATT |
| R3-230012 | Reply LS on L1 measurement and configurations for LTM | RAN2, CATT, Fujitsu |
| R3-230067 | Additions for L1/L2 triggered mobility | Ericsson, Huawei, Nokia, Nokia Shanghai Bell, Intel Corporation |
| R3-230073 | Introduction of L1/L2 inter-cell mobility | Huawei, Ericsson, Nokia, Nokia Shanghai Bell |
| R3-230084 | TP (BL CR TS 38.401) L1/2 Triggered Mobility (LTM) Procedures | Nokia, Nokia Shanghai Bell |
| R3-230085 | Discussion on Additional Considerations for L1/2 Triggered Mobility (LTM) | Nokia, Nokia Shanghai Bell |
| R3-230102 | (TPs to TS 37.340, 38.423 BL CRs) Consideration on CHO Related aspects | Huawei |
| R3-230103 | (TP to TS 38.423 BL CR) Consideration on selective activation of SCGs | Huawei |
| R3-230107 | Signalling Support for LTM | Qualcomm Incorporated |
| R3-230108 | SCG Selective Activation in NR-DC | Qualcomm Incorporated |
| R3-230109 | CHO with multiple candidate SCGs | Qualcomm Incorporated |
| R3-230114 | (TP for CHO with NR-DC to TS 37.340/38.423): Early data forwarding optimization for CHO with SCG procedure | ZTE |
| R3-230115 | (TP for Selective activation to TS 38.423): Support of Selective activation | ZTE |
| R3-230126 | [TP to TS38423, CHO with NRDC] Data forwarding enhancements for CHO with SCG(s) kept at the target side | Nokia, Nokia Shanghai Bell |
| R3-230127 | Source-node- and UPF-based data forwarding | Nokia, Nokia Shanghai Bell |
| R3-230146 | Discussion on CHO with SCG and multiple SCGs | CATT |
| R3-230147 | Discussion on NR-DC with selective activation of the cell groups | CATT |
| R3-230158 | Collision between L1/L2-triggered mobility and L3 mobility | vivo |
| R3-230159 | Discussion on L1/L2-triggered Mobility | vivo |
| R3-230160 | Signaling Support for Selective Activation | vivo |
| R3-230162 | Discussion on remaining issue for LTM procedure | China Telecommunication |
| R3-230163 | (TP for NR\_Mob\_enh2 BL CR for TS 38.473) On support of LTM procedure | China Telecommunication |
| R3-230164 | Discussion on selective activation of cell groups | China Telecommunication |
| R3-230203 | (TP for LTM BL CR to TS 38.401) Solutions for L1/L2 triggered mobility | Ericsson |
| R3-230204 | (TP for LTM BL CR to TS 38.473) F1AP impacts for LTM | Ericsson |
| R3-230205 | CHO with candidate SCG(s) | Ericsson |
| R3-230206 | NR-DC with Selective Activation | Ericsson |
| R3-230270 | (TP to TS 38.401 on LTM) Support for L1/L2 based inter-cell mobility | NEC |
| R3-230271 | (TP to TS 38.423 BL CR) Selective Activation of the cell groups | NEC |
| R3-230342 | Discussion on L1L2 based inter-cell mobility | Lenovo |
| R3-230343 | (TP to TS 38.401 & TS 38.470) Support of L1L2 based inter-cell mobility | Lenovo |
| R3-230344 | Discussion on CHO in NR-DC | Lenovo |
| R3-230345 | (TP for TS 38.473) On SCG selective activation | Lenovo |
| R3-230400 | Discussion on the remained FFSs for L1/L2 mobility | CATT |
| R3-230401 | Discussion on other issues for L1/L2 mobility | CATT |
| R3-230580 | (TP for L1L2Mob BLCR for TS 38.401): L1/L2 Mobility | Huawei |
| R3-230581 | (TP for L1L2Mob BLCR for TS 38.401): BLCR update with latest agreements | Huawei |
| R3-230617 | (TP to Mob\_enh2 BL CR TS38.401) Discussion on L1/L2 based Inter-cell Mobility | Samsung |
| R3-230636 | Considerations on selective activation of the cell groups | Samsung |
| R3-230658 | Discussion on L1L2 based Inter-Cell Mobility | CMCC |
| R3-230659 | (TP to TS 38.401 ) L1L2 based Inter-Cell Mobility | CMCC |
| R3-230660 | (TP to TS 38.473 ) L1L2 based Inter-Cell Mobility | CMCC |
| R3-230670 | Discussion on inter-gNB-DU LTM related impacts | LG Electronics Inc. |
| R3-230671 | (TP for NR\_Mob\_enh2 BL CR for TS 38.401) Discussion on inter-gNB-DU LTM related impacts | LG Electronics Inc. |
| R3-230672 | (TP for NR\_Mob\_enh2 BL CR for TS 38.473) Discussion on inter-gNB-DU LTM related impacts | LG Electronics Inc. |
| R3-230693 | Further discussion on LTM | NTT DOCOMO INC. |
| R3-230694 | Discussion on selective activation | NTT DOCOMO INC. |
| R3-230710 | Discussions on general principles still missing but important for LTM (including TP for TS 38.401) | Intel Corporation |
| R3-230711 | Considerations on parallel vs single (including TPs for TS 38.473) | Intel Corporation |
| R3-230712 | Considerations for the issue of avoiding CHO modification signalling in CHO with SCG(s) due to the source RRC reconfiguration (including TP for TS 38.423) | Intel Corporation |
| R3-230713 | Discussion on the new problem of CHO with SCGs (including TP for TS 38.423) | Intel Corporation |
| R3-230717 | Discussion on L1/L2 triggered mobility | ZTE |
| R3-230718 | TP for LTM BL CR to TS 37.483 | ZTE |
| R3-230750 | gNB-DU initiated target cell re-configuration for L1/L2 triggered mobility | Rakuten Symphony |
| R3-230758 | Avoid unnecessary signaling due to SCG reconfigurations | Ericsson, ZTE, Lenovo |
| R3-230889 | LS on Approaches during execution for inter-DU LTM | Ericsson |
| R3-230890 | Summary of offline discussion(CB:#22\_L1L2mobility) | Huawei |
| R3-230891 | Summary of offline discussion(CB:#23\_mobility\_CHO\_ MRDC) | Lenovo |
| R3-230895 | Summary of offline discussion(CB:#24\_mobility\_ selective activation) | Ericsson |
| R3-230932 | (TP for L1L2Mob BLCR for TS 38.401): BLCR update with latest agreements for intra-DU LTM | ZTE |
| R3-230968 | (TP for L1L2Mob BLCR for TS 38.401): BLCR update with latest agreements | Huawei |
| R3-231026 | (TP for L1L2Mob BLCR for TS 38.401): BLCR update with latest agreements for inter-DU LTM | Huawei, Ericsson, Nokia, Nokia Shanghai Bell, ZTE, CMCC, Qualcomm Incorporated |
| R3-231027 | (TP for L1L2Mob BLCR for TS 38.401): BLCR update with latest agreements for intra-DU LTM | ZTE, Ericsson, CMCC, Huawei, Nokia |
| R3-231048 | (BLCR to 38.401) for L1L2Mob | nn |

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| [R4-2300097](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300097.zip) | Scenario and scope of RRM requirements for LTM | Qualcomm Incorporated |
| [R4-2300098](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300098.zip) | L1-RSRP measurement requirements | Qualcomm Incorporated |
| [R4-2300099](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300099.zip) | LTM handover delay requirements | Qualcomm Incorporated |
| [R4-2300227](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300227.zip) | On L1/L2 based inter-cell mobiliy - General aspects and scenarios | Apple |
| [R4-2300228](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300228.zip) | On L1/L2 based inter-cell mobiliy - L1-RSRP measurement requirements | Apple |
| [R4-2300229](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300229.zip) | On L1/L2 based inter-cell mobiliy delay requirements | Apple |
| [R4-2300230](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300230.zip) | On NR-DC with selective activation of cell groups via L3 enhancements | Apple |
| [R4-2300231](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300231.zip) | On improvement on FR2 SCell/SCG setup delay | Apple |
| [R4-2300232](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300232.zip) | On Enhanced CHO configurations | Apple |
| [R4-2300295](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300295.zip) | Discussion on LTM general aspects and scenarios | China Telecom |
| [R4-2300296](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300296.zip) | Discussion on LTM L1-RSRP measurement requirements | China Telecom |
| [R4-2300297](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300297.zip) | Discussion on LTM delay requirements | China Telecom |
| [R4-2300442](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300442.zip) | Requirements for enhancement of Scell/SCG setup delay | Qualcomm Incorporated |
| [R4-2300466](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300466.zip) | Discussion on general aspects and scenarios for L1/L2 based inter-cell mobility | Intel Corporation |
| [R4-2300467](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300467.zip) | Discussion on L1-RSRP measurement requirements for L1/L2 based inter-cell mobility | Intel Corporation |
| [R4-2300468](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300468.zip) | Discussion on L1/L2 inter-cell mobility delay requirements | Intel Corporation |
| [R4-2300470](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300470.zip) | Discussion on improvement on SCell/SCG setup delay | Intel Corporation |
| [R4-2300552](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300552.zip) | Further discussion on general aspects and scenarios for L1/L2 based inter-cell mobility | CATT |
| [R4-2300553](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300553.zip) | Discussion on L1-RSRP measurement requirements for L1/L2 based inter-cell mobility | CATT |
| [R4-2300554](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300554.zip) | Discussion on L1/L2 inter-cell mobility delay requirements | CATT |
| [R4-2300555](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300555.zip) | Reply LS on L1 intra- and inter- frequency measurement and configurations for L1/L2-based inter-cell mobility | CATT |
| [R4-2300869](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300869.zip) | Discussion on L1/L2 inter-cell mobility delay requirements | CMCC |
| [R4-2300870](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300870.zip) | Discussion on general aspects for L1/L2 based inter-cell mobility | CMCC |
| [R4-2300871](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300871.zip) | Discussion on improvement on SCell/SCG setup delay | CMCC |
| [R4-2300890](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300890.zip) | Discussion on general aspects and scenarios for LTM | Xiaomi |
| [R4-2300891](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300891.zip) | Discussion on L1-RSRP measurement requirements for LTM | Xiaomi |
| [R4-2300892](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300892.zip) | Discussion on LTM delay requirements | Xiaomi |
| [R4-2300893](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300893.zip) | Discussion on improvement on SCell/SCG setup | Xiaomi |
| [R4-2300926](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300926.zip) | Upated work plan of R18 Further NR Mobility Enhancements | MediaTek Inc., Apple |
| [R4-2300927](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300927.zip) | Discussion on general aspects and scenarios of LTM | MediaTek Inc. |
| [R4-2300928](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300928.zip) | Discussion on L1-RSRP measurement requirements for LTM | MediaTek Inc. |
| [R4-2300929](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300929.zip) | Discussion on LTM delay requirements | MediaTek Inc. |
| [R4-2300930](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300930.zip) | Draft reply LS on L1 intra- and inter- frequency measurement and configurations for L1/L2-based inter-cell mobility | MediaTek Inc. |
| [R4-2300931](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300931.zip) | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | MediaTek Inc. |
| [R4-2300932](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300932.zip) | Discussion on improvement on FR2 SCell/SCG setup/resume | MediaTek Inc. |
| [R4-2300933](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300933.zip) | Discussion on Enhanced CHO configurations | MediaTek Inc. |
| [R4-2300971](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300971.zip) | General aspects discussions for L1/L2 based inter-cell mobility | NTT DOCOMO, INC. |
| [R4-2300972](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2300972.zip) | Discussions for L1-RSRP measurement requirements | NTT DOCOMO, INC. |
| [R4-2301054](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301054.zip) | Discussion on L1-RSRP measurement requirements | ZTE Corporation |
| [R4-2301055](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301055.zip) | Discussion on L1/L2 inter-cell mobility delay requirements | ZTE Corporation |
| [R4-2301202](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301202.zip) | Discussion general aspects and scenarios of on LTM | ZTE Corporation |
| [R4-2301203](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301203.zip) | Discussion on LTM based on LS | ZTE Corporation |
| [R4-2301204](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301204.zip) | Discussion on the improvement on FR2 SCell/SCG setup/resume | ZTE Corporation |
| [R4-2301323](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301323.zip) | Discussion on improvement on SCell/SCG setup delay | LG Electronics UK |
| [R4-2301337](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301337.zip) | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | vivo |
| [R4-2301338](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301338.zip) | Discussion on Enhanced CHO configurations | vivo |
| [R4-2301339](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301339.zip) | Discussion on RRM requirements of FR2 measurements for DC/CA setup/resume | vivo |
| [R4-2301587](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301587.zip) | UE RF requirements | Nokia, Nokia Shanghai Bell |
| [R4-2301612](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301612.zip) | Discussion on RF requirement impacts for inter-frequency L1/L2-based mobility | MediaTek Inc. |
| [R4-2301658](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301658.zip) | On general and scenarios of L1L2 based inter-cell mobility | OPPO |
| [R4-2301659](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301659.zip) | On L1-RSRP measurement of L1L2 based inter-cell mobility | OPPO |
| [R4-2301660](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301660.zip) | On L1L2 inter-cell mobility delay requirements | OPPO |
| [R4-2301661](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301661.zip) | On improvement on FR2 SCellSCG setupresume | OPPO |
| [R4-2301704](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301704.zip) | Discussion on general aspects in R18 L1L2-triggered mobility | vivo |
| [R4-2301705](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301705.zip) | Discussion on L1 measurements in R18 L1L2-triggered mobility | vivo |
| [R4-2301706](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301706.zip) | Discussion on cell switch delay requirements in R18 L1L2-triggered mobility | vivo |
| [R4-2301707](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301707.zip) | Reply LS to RAN1 on further conclusions about L1 intra- and inter- frequency measurement | vivo |
| [R4-2301825](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301825.zip) | Discussion on general aspects on L1/L2 based inter-cell mobility | Huawei, HiSilicon |
| [R4-2301826](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301826.zip) | Discussion on L1-RSRP measurement requirements | Huawei, HiSilicon |
| [R4-2301827](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301827.zip) | Discussion on L1/L2 inter-cell mobility delay requirements | Huawei, HiSilicon |
| [R4-2301828](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301828.zip) | Discussion on LS on L1 intra- and inter- frequency measurement and configurations for L1/L2-based inter-cell mobility | Huawei, HiSilicon |
| [R4-2301829](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301829.zip) | Reply LS on L1 intra- and inter- frequency measurement and configurations for L1/L2-based inter-cell mobility | Huawei, HiSilicon |
| [R4-2301830](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301830.zip) | NR-DC with selective activation of cell groups via L3 enhancements | Huawei, HiSilicon |
| [R4-2301831](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301831.zip) | Discussion on improvement on FR2 SCell/SCG setup/resume | Huawei, HiSilicon |
| [R4-2301832](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2301832.zip) | Discussion on Enhanced CHO configurations | Huawei, HiSilicon |
| [R4-2302242](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302242.zip) | Discussion on LTM general aspects and scenarios | Nokia, Nokia Shanghai Bell |
| [R4-2302243](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302243.zip) | Discussion on LTM measurement requirements | Nokia, Nokia Shanghai Bell |
| [R4-2302244](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302244.zip) | Discussion on LTM delay requirements | Nokia, Nokia Shanghai Bell |
| [R4-2302245](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302245.zip) | Discussion on RACH-less LTM | Nokia, Nokia Shanghai Bell |
| [R4-2302246](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302246.zip) | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | Nokia, Nokia Shanghai Bell |
| [R4-2302247](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302247.zip) | Discussion on Improvements on SCell/SCG setup delay | Nokia, Nokia Shanghai Bell |
| [R4-2302248](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302248.zip) | Discussion on Conditional Handover | Nokia, Nokia Shanghai Bell |
| [R4-2302255](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302255.zip) | Discussion on selective activaiton of the cell groups in NR-DC | Ericsson |
| [R4-2302256](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302256.zip) | Disucssion on enhancement of FR2 Idle/Inactive measurement reporting | Ericsson |
| [R4-2302257](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302257.zip) | Discussion on enhanced CHO configurations | Ericsson |
| [R4-2302659](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302659.zip) | On LTM general aspects and scenarios | Ericsson |
| [R4-2302660](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302660.zip) | On L1-RSRP measurement requirements | Ericsson |
| [R4-2302661](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302661.zip) | On LTM delay requirements | Ericsson |
| [R4-2302662](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302662.zip) | On other aspects of LTM | Ericsson |
| [R4-2302780](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302780.zip) | Topic summary for [106][222] NR\_Mob\_enh2\_part1 | Moderator (MediaTek) |
| [R4-2302781](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302781.zip) | Topic summary for [106][223] NR\_Mob\_enh2\_part2 | Moderator (Apple) |
| [R4-2302834](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_106/Docs/R4-2302834.zip) | Topic summary for [106][141] NR\_Mob\_enh2\_UERF | Moderator (Media Tek) |

 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