**3GPP TSG RAN Meeting #100 RP-23xxxx**

**Taipei, June 12-14, 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-223520 |
| **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:65% | 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 |
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## 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#112b-e (April 2023)**

L1 enhancements for inter-cell beam management

Agreement

* Adopt Alt.2 for beam indication of target cell(s) and TCI state activation for candidate cell(s) (if supported) ,
	+ Alt. 1: By indicating RS identifier, i.e. mapping between RS identifier and Rel-17 unified TCI state is done by a UE
	+ Alt. 2: By indicating Rel-17 TCI state index

Agreement

From RAN1 point of view, at least the following information can be included in the cell switch command, which is conveyed by MAC CE

* Information to identify the target cell(s)
	+ The details including bit number are designed by RAN2
* TA related information (details up to the discussion in A.I. 9.10.2)
* 1 joint or 1 pair of UL and DL unified TCI State index for the target Cell
	+ Note: discussion on target SpCell is not precluded
* Active DL and UL BWPs for the target cell
* FFS: Triggering of aperiodic TRS transmitted from the target cell
* FFS: Triggering the CSI acquisition of the target cell and reporting to the target cell
* FFS: Triggering of aperiodic SRS transmission to the target cell
* FFS: C-RNTI

FFS: the presence of each field (i.e. always present or configurable)

Agreement

For the beam selection for SSB based L1-RSRP measurement report,

* Beam selection is performed across the L cells from configured (or activated, if introduced) cells, i.e. M beams for each of the L cells
	+ FFS: How to select the L cells and M beams per cells is up to UE
* M x L beams are reported in a single report instance
	+ Max values of M and L are based on UE capability, and at least M x L=4 is supported as a UE capability, other UE capabilities are FFS
		- FFS if UE is allowed to report less than M x L beams
	+ The values of M and L are configured to the UE in the reporting configuration
* FFS: The following configurability is introduced in the report configuration
	+ 1) Whether serving cell is always selected in the L cell selection performed by the UE, and applicable when a UE is configured with L>=2
	+ 2) at least one of the inter-frequency cells is always selected in the L cell selection performed by the UE, and applicable when a UE is configured with L>=2 and at least one cell in inter-frequency

Agreement

For the Rel-17 unified TCI based beam indication in Rel-18 LTM, at least Alt 1 is supported:

* Alt 1: TCI state activation of a candidate cell is received before the reception of beam indication of the candidate cell,
* Alt 2: TCI state activation of a candidate cell is received together with the reception of beam indication of the candidate cell
	+ FFS: signalling details for TCI state indication, if both activation and indication are done in the same MAC CE message carrying switch command
* Alt 3: Alt 1 and/or Alt 2 can be supported based on the UE capability

FFS: signalling details for TCI state activation

FFS: For Alt 1, whether/how TCI state activation for candidate cell(s) is allowed

Note: If scenarios 1 and 3 are to be supported other beam indication/TCI activation timing relationships are not precluded.

Agreement

* Periodic and semi-persistent report on PUCCH are also supported for gNB scheduled L1-measurement reporting.

Agreement

* RRC parameter ss-PBCH-BlockPower for candidate cells is included in the LTM configuration.
	+ UE needs the parameter to (at least) perform RACH towards candidate cells
	+ Note: how to capture this parameter and RRC structure are up to RAN2

Agreement

Companies are encouraged to study the beam application time for Rel-18 LTM, which may be different from that without serving cell change

* Definition of the beam application time
* The exact value(s), condition and UE capability
* Consider the interaction with the application of the candidate RRC configuration.

Conclusion

Whether active DL and UL BWP of the target Cell/SpCell field, within the cell switch command, is always present or not is left to RAN2 decision.

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.

Note: If scenarios 1 and 3 are agreed to be supported in R18 LTM other solutions may be considered.

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#112bis-e are included
	+ The following contents are included in the LS
		- RAN1 has made the following agreement in RAN1#112bis-e
			* Adopt Alt.2 for beam indication of target cell(s) and TCI state activation for candidate cell(s) (if supported) ,
				+ Alt. 1: By indicating RS identifier, i.e. mapping between RS identifier and Rel-17 unified TCI state is done by a UE
				+ Alt. 2: By indicating Rel-17 TCI state index
		- This agreement implies that the source cell must be provided with information so that the source cell can send a Rel-17 TCI state index of the target/candidate cell(s) to the UE even when source cell and target/candidate cell(s) belong to different DUs. RAN1 respectfully asks RAN3 to perform any necessary specification work to support this functionality.

**Decision:** As per email decision posted on April 28th, the draft LS [R1-2304275](file:///C%3A%5C%5CMyMeetings%5C%5CTSGR1_112b-e%5C%5CDocs%5C%5CR1-2304275.zip) is endorsed in principle. Final LS is approved in [R1-2304276](file:///C%3A%5C%5CMyMeetings%5C%5CTSGR1_112b-e%5C%5CDocs%5C%5CR1-2304276.zip).

Timing advance management to reduce latency

Agreement

For PDCCH ordered-RACH, if reception of RAR is not configured, UE autonomous re-transmission of PRACH is not allowed, regardless of the configuration of PreambleTransMax.

Agreement

When reception of RAR is configured, support RAR is received from serving cell at least in intra-DU case.

Agreement

When reception of RAR is configured, support RAR is received from serving cell in inter-DU case.

* FFS: RA response window related issues

Agreement

For PDCCH ordered RACH mechanism in R18 LTM, when reception of RAR is configured,

* the UE stores(remembers/maintains/handles) a TA for at least one candidate cell,
* storing(remembering/maintaining/handling) corresponding TAs for more than one candidate cell is up to UE capability,
	+ detailed number of candidate cell is up to UE capability.

Agreement

For PDCCH-order based PRACH for candidate cell study the following issues:

* whether/how prioritizations for transmission power reduction for a PRACH transmission to a LTM candidate cell is performed
* whether/how prioritizations for prioritization of a PARCH transmission to a LTM candidate cell compared to an overlapped (in time and frequency) serving cell UL transmission

Agreement

For PDCCH ordered-RACH, if reception of RAR is not configured

* Whether power ramping is performed or not is determined from PDCCH order
	+ If power ramping is performed,
		- whether PRACH is an initial transmission or retransmission is explicitly indicated in PDCCH order (FFS exact indication mechanism)
		- power ramping-up value is **configured**
	+ else, the power should be determined by open-loop power control

Agreement

Send LS to RAN4 with the following info

* RAN1 discussed the time gap between a PDCCH order and the corresponding PRACH transmission for LTM.
* RAN1 believes that this will require that the time gap is increased at least for the following scenario
	+ For PDCCH-order based PRACH on a candidate cell that is not a current serving cell with PUCCH/PUSCH or inter-frequency with the current serving cell
* RAN1 relies on RAN4 to verify the need for the above additional latency and, if so, the corresponding value is needed
* RAN1 relies on RAN4 to investigate any impact/interruption on UL Tx of serving cell due to the PRACH Tx on a candidate cell that is not a current serving cell with PUCCH/PUSCH
* RAN1 relies on RAN4 to verify the need for any update is required to ΔBWPSwitching, ΔDelay if so, the corresponding values and whether UE capability is needed
* Potential RAN1 spec update will be based on RAN4’s feedback.

**RAN1#113 (Incheon, Korea, May 2023)**

L1 enhancements for inter-cell beam management

Working Assumption

* 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

Conclusion

There is no consensus to support the following procedures prior to the reception of L1/L2 cell switch command aiming at the reduction of handover delay/interruption in Rel-18 LTM

* CSI acquisition for candidate before reception of cell switch command

Note: At least for the candidate cells which are current serving cells, the CSI acquisition prior to cell switch command will be supported

**Conclusion**

There is no consensus to introduce additional mechanism to support the following procedures prior to and joint with the reception of L1/L2 cell switch command aiming at the reduction of handover delay/interruption in Rel-18 LTM

-        TRS tracking for candidate cells

FFS: Whether/How the QCL reference information of TCI states of the candidate cell should be mapped to the source SSB

Note: At least for the candidate cells which are current serving cells, TRS tracking prior to cell switch command is supported

Conclusion

For R18 LTM, in order to activate multiple joint TCI state or/and pair of (DL/UL) TCI states for candidate cell case, do not support TCI state activation together with beam indication of the candidate cell in the same MAC-CE message.

* FFS: UE assumption on the active TCI states other than the indicated TCI state after the reception of the cell switch command.

Agreement

A UE can be indicated and activated a single joint TCI state or a pair of UL/DL TCI state in the cell switch command.

Agreement

* For the configuration of SSB based L1-RSRP measurement,
	+ periodicity of SSB, SSB position in burst are provided as time domain information for intra- and inter- frequency

Agreement

* + Each TCI state included up to 2 qcl-types and each qcl-type source RS in a QCL-Info of the TCI state is provided at least based on the RS configuration for LTM
		- FFS: other RS index outside measurement RS configuration for LTM
		- FFS: Additional contents of TCI states for LTM

Agreement

* For TCI state activation for candidate cell(s) before the cell switch command,
	+ MAC CE is used and the details of MAC-CE for TCI state activation for LTM is up to RAN2
	+ Further study if PDCCH order for candidate cell(s) can be used

Agreement

* For the beam application time for Rel-18 LTM,
	+ Beam application time is supported, and starts after the last symbol of the PUCCH or PUSCH carrying the HARQ-ACK for the PDSCH which carries MAC-CE containing cell switch command with the beam indication for the target cell(s)
		- FFS: reference SCS, i.e. serving cell and/or target cell
	+ At least the following components are further studied to define the beam application time
		- Whether TCI state activation is received before/together with cell switch command
		- Legacy values, i.e. $3N\_{slot}^{subframe,µ}$ and BeamAppTime-r17
		- RF retuning time when inter-frequency switch is performed, which is up to RAN4
		- Whether the target cell is one of the current serving cells
* Cell switching time, which is defined by RAN2 and RAN4, may or may not include the potential components of beam application time above.
* Send an LS to RAN2 and RAN4 to ask their feedback

Agreement

* For the beam selection for SSB based L1-RSRP measurement report,
	+ The inclusion of current SpCell in the L1 measurement report is configurable.
		- * new UE capability(ies) are introduced and details can be discussed in UE feature

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#113 are included
		- The following information to RAN2 is included:
			* Whether C-RNTI that is to be used by target cell needs to be included within the MAC-CE containing cell switch command will be left to RAN2 decision.
			* It will be left to RAN2 decision whether the following fields are always present or not in the cell switch command:
				+ TA related information

Conclusion

* For the beam selection for SSB based L1-RSRP measurement report, except SpCell is configured to be included,
	+ the selection of cells for the L1 measurement report is up to UE implementation.
	+ the selection of beams per cell for the L1 measurement report is the same as legacy behaviour.

Conclusion

No consensus to introduce UE/event triggered report for L1 measurement results for LTM in Rel-18

Agreement

Confirm the following Working Assumption, and sent LS to RAN4 to clarify the feasibility of supporting this mechanism

**Working Assumption**

From RAN 1 perspective, 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

**Agreement**

From RAN 1 perspective, without performing PDCCH-ordered RACH for candidate cell(s), RACH-less mechanism can be supported by indicating TA value of target cell as TA=0 or keeping the same value as source cell in cell switch command.

* Note 1: this doesn’t mean to preclude TA values other than 0 and the same value as source cell in cell switch command for PDCCH-ordered RACH when RAR is not configured for the PDCCH order.
* Note 2: The feasibility and signalling can be further concluded by RAN2

**Agreement**

For PDCCH order based PRACH to candidate cell, the candidate cell SSB indicated in the PDCCH order serves as the path loss RS for PRACH Tx power determination.

Agreement

On the determination of the PRACH transmission power when reception of RAR is not configured, a [1-bit] field in PDCCH order explicitly indicating initial transmission or retransmission of PRACH is supported.

**Note:**

From RAN1 perspective, when reception of RAR is configured, there may have 4 alternatives to determine the randomaccess response window

* Alt1: Postpone the starting point of the random access response window
* Alt2: Extend the length of the random access response window
* Alt3: Length and offset of the starting point of RAR window can be configured by RRC
* Alt4: if MAC CE is used to carry TA and PDCCH is scrambled by C-RNTI in USS, RAR window is not needed

[Note: the random access response window for candidate cell(s) is separately configured from the normal RAR window.]

**Note:**

In addition to TA, when reception of RAR is configured, RAN1 discussed the following alternatives:

* Alt 1: when there is only one ongoing RACH procedure at each time, the identification of candidate cell is not needed
* Alt 2: when more than one RACH procedures are allowed at each time, the identification of candidate cell is contained in RAR

Timing advance management to reduce latency

**Agreement**

On the determination of the PRACH transmission power when reception of RAR is not configured, a 1-bit field in PDCCH order explicitly indicating initial transmission or retransmission of PRACH, FFS

* UE will increase the power with the value of power ramping configuration if it is indicated as re-transmission, unless the max allowed power is achieved
* whether/how to reset the counter

**Agreement**

* For PDCCH-order based PRACH for candidate cell, If UE capability does not support simultaneous/parallel transmissions, when the PRACH transmission to a candidate cell other than current serving cell(including any interruption due to processing time to build the PRACH transmission, carrier or/and BWP switching time if any, UL or DL RF retuning time if any, additional preparation time if any) happen to overlap over one or more symbols or have a time gap below a certain threshold (e.g., N symbols, FFS: the value of N) with following UL transmission to one of the serving cells
* PRACH transmission
* PUCCH/PUSCH transmission carrying HARQ-ACK, SR, P/SP CSI, aperiodic CSI
* SRS transmission
* Any other PUCCH/PUSCH transmission
* Down-select the UE behavior in this case
* Alt 1: Dropping rule is needed
* Alt 2: up to UE implementation

#### 2.1.2 Remaining Open issues

L1 enhancements for inter-cell beam management

* For the information can be included in the cell switch command conveyed by MAC CE
	+ FFS: Triggering of aperiodic TRS transmitted from the target cell
	+ FFS: Triggering the CSI acquisition of the target cell and reporting to the target cell
	+ FFS: Triggering of aperiodic SRS transmission to the target cell
	+ FFS: C-RNTI
	+ FFS: the presence of each field (i.e. always present or configurable)
* For the beam selection for SSB based L1-RSRP measurement report,
	+ FFS: How to select the L cells and M beams per cells is up to UE
	+ FFS if UE is allowed to report less than M x L beams
* FFS: The following configurability is introduced in the report configuration
	+ 1) Whether serving cell is always selected in the L cell selection performed by the UE, and applicable when a UE is configured with L>=2
	+ 2) at least one of the inter-frequency cells is always selected in the L cell selection performed by the UE, and applicable when a UE is configured with L>=2 and at least one cell in inter-frequency
* For the Rel-17 unified TCI based beam indication in Rel-18 LTM
	+ FFS: signalling details for TCI state activation
	+ FFS: For Alt 1, whether/how TCI state activation for candidate cell(s) is allowed
* FFS on whether to support CSI acquisition for candidate before reception of cell switch command
* FFS on whether to introduce additional mechanism to support TRS tracking for candidate cells prior to and joint with the reception of L1/L2 cell switch command
* FFS: Whether/How the QCL reference information of TCI states of the candidate cell should be mapped to the source SSB
* FFS: UE assumption on the active TCI states other than the indicated TCI state after the reception of the cell switch command.
* For each TCI state configuration
	+ FFS: other RS index outside measurement RS configuration for LTM
	+ FFS: Additional contents of TCI states for LTM
* At least the following components are further studied to define the beam application time
	+ Whether TCI state activation is received before/together with cell switch command
	+ Legacy values, i.e. $3N\_{slot}^{subframe,µ}$ and BeamAppTime-r17
	+ RF retuning time when inter-frequency switch is performed, which is up to RAN4
	+ Whether the target cell is one of the current serving cells

Timing advance management to reduce latency

* FFS: RA response window related issues when reception of RAR is configured. There may have 4 alternatives to determine the random access response window.
* For PDCCH-order based PRACH for candidate cell study the following issues:
	+ whether/how prioritizations for transmission power reduction for a PRACH transmission to a LTM candidate cell is performed
	+ whether/how prioritizations for prioritization of a PARCH transmission to a LTM candidate cell compared to an overlapped (in time and frequency) serving cell UL transmission
* FFS: other impacts on RAN1 spec to support UE-based TA measurement

## 2.2 RAN2

#### 2.2.1 Agreements

**RAN2#121b-e (April 2023)**

L1/L2-based inter-cell mobility

* From RAN2 perspective, to enable shared preamble resource among multiple UEs, it is beneficial that the information that identifies the allocated CFRA resource (i.e., SS/PBCH index, RACH occasion, and Random Access Preamble index) can be indicated in the PDCCH order (as legacy intra-cell PDCCH order).
* RRC RACH configuration for early TA acquisition (e.g., including whether RAR needs to be received) is specific per target cell and is signalled separately (separate IEs) from the candidate cell configuration (the part that need to be applied at cell switch).
* R2 assumes that Early TA RACH option 3 (with RAR from candidate cell) is not needed in Rel-18.
* With the assumption that the UE will skip RACH in the target cell if a TA value is given in the cell switch command: It is FFS if the following TA values can be given to the UE:

- Value 0,

- Value indicating that the UE shall apply the TA of one source cell.

* R2 assumes RRCReconfigurationComplete message is always sent at each LTM execution.
* In RACH-based LTM, the target cell is aware of the UE’s arrival based on the reception of preamble in CFRA and on the reception of Msg3/MsgA in CBRA, like the legacy HO.
* In RACH-less LTM, the target cell is aware of the UE’s arrival based on reception of the first UL transmission from this UE
* In RACH-less LTM, RRCReconfigurationComplete can be the content of the first UL MAC PDU/transmission to indicate UE arrival, i.e. no need to introduce any new signaling to indicate UE arrival (for the MCG-switch case)
* For RACH-based LTM, the UE considers that LTM execution procedure is successfully completed when the RACH is successfully completed.
* For RACH-less LTM, the UE considers that LTM execution procedure is successfully complete when the UE determines the NW has successfully received its first UL data.
* Following behaviors of LTM supervisor timer are agreed:

- 1: The UE starts the LTM supervisor timer, upon reception of the LTM cell switch MAC CE;

- 2: The UE stops the LTM supervisor timer, upon successful completion of LTM cell switch;

- 3: If the LTM supervisor timer for MCG expires, as baseline, the UE considers LTM failure and initiates RRC re-establishment. (SCG switch case FFS)

* LTM supervisor timer is RRC layer timer.
* At RLF or LTM execution failure (for MCG), RAN2 intend to support fast recovery to a candidate cell by LTM execution.
* While configured with LTM candidate cells, the UE can also execute any L3 handover command sent by the network. R2 assumes that is could be up to the network to avoid any issue due to the race condition between LTM execution and RRC Reconfiguration (e.g. L3 HO cmd), e.g. avoid sending LTM switch cmd and L3 HO cmd in the same TB.
* Discuss terminology for the TS in the RRC stage-3 discussions when/if needed (not at current meeting).
* Whether the Reference configuration is a complete configuration or not is up to the network implementation.
* Reference configuration + LTM candidate configuration (in combination) has to be a complete configuration.
* The reference configuration is always explicitly signalled (not automatically derived from any other config, e.g. current).
* Confirm that only the replacement procedure (the “full config without L2 reset”) is supported for Execution of LTM cell switch.
* The UE may perform early decoding and early validity check. FFS whether Early validity check triggers early re-establishment. FFS the possible timing, FFS subset of cells, FFS if need to specify anything or just up to UE impl, FFS if other signalling to notify network is needed.

Initial agreements, from RAN2 point of view (may be dep on RAN1 progress).

* The location of RS configuration for SSB-based measurements of candidate cells is external to the ServingCellConfig(s) of current serving cells and external to the configuration of the LTM candidate cells. The RS configuration, per RAN1 agreement, can include PCI or logical ID, SMTC location, frequency location, and SCS.
* RAN2 assumes that the location of configurations of TCI states for the candidate cells (used before/at cell switch) is external to the ServingCellConfig(s) of current serving cells and external to the configuration of the LTM candidate cells (same location as RS configuration).
* RAN2 assumes that For L1 measurements of LTM candidate cells, the reporting configuration is placed inside the ServingCellConfig of current serving cell(s).
* RAN2 assumes that whether filtering, hysteresis, and time-to-trigger are needed for LTM specific L1 measurements is up to RAN1.
* FFS if the LTM specific L1 measurements of an LTM candidate SCell is independent of its activation status.
* Whether to assume L1/L2 signaling to control or change L1 measurement/reporting for LTM needs further discussion (parts may be discussed in RAN1). RAN2 assumes that such control would be limited to certain aspect that need frequent update and restricted by RRC configuration.

NR-DC with selective activation of cell groups

* For the reference configuration for SCG Selective Activation, aim at following similar design as LTM.
* For inter-SN SCG Selective Activation, the RRC reconfiguration message containing the Rel-18 CPC configurations provided to the UE is in MN format.
* For MN initiated inter-SN SCG selective activation, source MN generates the execution conditions for the initial CPAC.

FFS on the following options for subsequent CPC:

Option 1: Source MN generates the execution conditions for all subsequent CPC.

Option 2: Candidate SN may generate execution conditions for subsequent CPC.

* For SN initiated inter-SN SCG selective activation, source SN generates the execution conditions for the initial CPC.
FFS if Candidate SN may generate/modify execution conditions for subsequent CPC
* Assume for now that there is only one reference configuration.
* The following may be included in the initial RRC reconfiguration message containing the Rel-18 CPC configurations:
1. 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.

1. Initial List of candidate target PSCells (this list can be updated by the network, e.g., cells may be added or removed) with associated target SCG configurations. FFS whether the MCG configurations associated with the target SCG configurations are included.

3. The execution conditions associated with each candidate target PSCell.

1. For MN initiated procedure, execution conditions based on event A4 are supported. FFS whether A3/A5 are supported.
2. For SN initiated procedure, execution conditions based on events A3/A5 are supported.
* UE will keep R18 CPC configurations after CPC execution. It should be possible to release a CPC candidate explicitly by RRC reconfiguration procedure.

CHO with target SCG / candidate SCG(s)

For the CHO+CPC case:

* When both CHO and CPC conditions are met, both CHO and CPC cell change is executed.
* Baseline: The UE waits until both CHO and CPC conditions are met (always). (furthermore, it is assumed that if needed the network can provide a complementary CHO-only configuration, to avoid failures in deployments where failure would otherwise be likely to happen).
* Alternative: FFS if When CHO condition is met, but CPC condition is not met, CHO execution is triggered (and somehow source SCG can be released). IF allowed in the new configuration the UE may continue evaluation of CPC/CPA conditions.

**RAN2#122 (Incheon, Korea, May 2023)**

L1/L2-based inter-cell mobility

* Dynamic grant can be used for RACH-less LTM, for the first UL data transmission to the target cell:

- the UE monitors PDCCH for dynamic scheduling from the target cell, upon LTM cell switch.

- upon cell switch decision, R2 assumes that the source DU informs the target DU about the selected beam, so that the target DU can start scheduling dynamic UL grant.

* Configured grant can be used for RACH-less LTM, for the first UL data transmission to the target cell, the UE selects the configured grant occasion, which is associated with the beam indicated in the LTM MAC CE (as set by source cell). FFS further optimization

For early TA acquisition for candidate Cells

* For PDCCH ordered early TA acquisition without RAR, there is no need for UE to maintain the TA timer for candidate cell (i.e. it is NW implementation to determine the TA validity), TA is given in the cell switch MAC CE (when available in the network).
* RAN2 doesn’t see a need for a solution with RAR in for Rel-18.
* Observation: Without RAR (without UE maintaining TA), the UE will need to do RACH for link recovery and/or conditional (if supported), which is acceptable in Rel-18
* The UE determines to trigger RACH-less cell switch in MAC layer, if the LTM cell switch MAC CE provides the TA value (no RAR is assumed).
* We send LS to R1
* Remove the duplication of the action text (in the previous section). With this change the LS out is approved in R2-2306897

Can use legacy behaviour:

* P2: RAN2 assumes that network implementation allows speedy data recovery for RLC AM bearer at intra-DU LTM cell switch without specification impact.
* P3: The PDCP data recovery procedure can be applied to the RLC AM bearers for inter-DU LTM cell switch.
* Will not support HARQ continue at LTM cell switch in this release.

For L1 measurements for LTM

* The RS configuration is provided to the UE per LTM candidate cell.
* RAN2 assumes that Each candidate DU needs to know the RS configuration of each candidate DUs in order to provide the LTM candidate configuration.
* RAN2 assumes that The CU transmits to each C-DU the RS configuration of S-DU (if this is an LTM candidate cell) and/or other C-DUs, to generate the corresponding L1 configuration for LTM.
* RAN2 assumes C-DU generates the RS configuration and send to the CU. The CU transmits to the Source DU the RS configuration per LTM candidate cell and the associated LTM candidate (when the CU receives LTM candidate configuration(s) from the C-DU). It is up to RAN3 whether the RS configuration is sent before (or at the same time of) the C-DU creates the LTM candidate configuration (and whether is semi-statis or UE associated).
* The RS configuration and/or CSI resource configuration for measuring LTM candidate cells is included in the LTM-Config IE and is a separate configuration, e.g. outside of the LTM candidate configuration.
* CSI reports for LTM candidates (neighbour cell reports for the purpose of LTM cell switch) are configured by the serving cell in an IE that is like CSI-ReportConfig for LTM within the ServingCellConfig since this is the cell in which the report is to be transmitted.
* RAN2 assumes the following about CSI measurement reporting for LTM (final decision up to RAN1):

a. UE reports all measured LTM candidate cells in a single report; or

b.UE reports one or a subset of measured LTM candidate cell(s) in a report.

* RAN2 to send an LS to RAN1 RAN3 RAN4, offline. Can also consider whether we should ask questions, continue in the offline [005]
* Remove the duplicate action text. With this change LS out is Approved in R2-2306898
* If the TA maintenance etc for candidate cell(s) in the UE is needed, the TA(s) associated with candidate cell(s) can be maintained during LTM (TDB exactly which cells decide stage-3).
* For non-TA parts, we do MAC reset, which overrides earlier agreements on partial MAC reset. As earlier agreed RLC-AM can continue at LTM cell switch (intended for intra-DU).

NR-DC with selective activation of cell groups

* For SN-initiated SCG selective activation, candidate SN generates execution conditions for subsequent CPC.
* FFS if it shall be possible to do something like MN-initiated CPA/CPC where Candidate SN generate execution conditions for subsequent CPC
* The UE shall skip the condition evaluation for a candidate which is a current PScell.
* The reference configuration is provided to all candidates involved in preparation, FFS which node initially generates it. Assume it can be provided in MN initiated and in SN initiated procedures.
* Will not spend specific efforts for supporting nested configurations for candidate cell configuration.
* Rapporteur take initiative on naming offline
* Terminology is “Subsequent CPAC”

CHO with target SCG / candidate SCG(s)

* P3: The CHO execution conditions (for candidate PCells) and CPA/CPC execution conditions (for candidate PSCells) are provided based on the source MeasConfig.
* P4: For CHO execution conditions, the source MN determines the execution conditions on candidate PCells, based on the source MCG MeasConfig.
* P5: For CPA/CPC execution conditions, the candidate MN determines the parameters of the execution conditions for candidate PSCells (e.g. event A4 threshold).
* P6: The candidate MN informs the source MN about the prepared candidate PSCells and parameters of the associated execution conditions (e.g. event A4 threshold). According to the received information from the candidate MN, the source MN generates the corresponding execution conditions based on the source MCG MeasConfig to the UE.
* FFS how, if to support event A3/A5.
* P8: For CHO with candidate SCGs for CPA/CPC, the RRCReconfigurtaion message in one CHO container includes one MCG configuration and one SCG configuration (i.e. similar to Rel-17 CHO with SCG configuration).
* P9: The execution conditions associated with one CHO container includes both CHO execution condition(s) and CPA/CPC execution condition(s), i.e. triggering conditions on both candidate PCell and candidate PSCell.
* P10: If there are multiple candidate PSCells associated with one candidate PCell, the NW can provide multiple CHO configurations for the same candidate PCell, i.e. each one contains one MCG configuration (for the same candidate PCell) and one SCG configuration (for different candidate PSCell).
* P12: When the CPA/CPC execution condition is met but no CHO execution condition is met, the UE continues to evaluate both CHO and CPA/CPC execution conditions.
* For CHO+CPC we only consider execution when BOTH conditions are met.

(When the CHO execution condition is met but no CPC execution condition is met, if there is an available CHO-only or Rel-17 CHO with SCG configuration for which the CHO condition is met, the UE performs the CHO-only or Rel-17 CHO with SCG execution, and THUS the network can handle such situation by providing proper configurations).

#### 2.2.2 Remaining Open issues

L1/L2 based inter-cell mobility

* FFS whether Early validity check triggers early re-establishment. FFS the possible timing, FFS subset of cells, FFS if need to specify anything or just up to UE impl, FFS if other signalling to notify network is needed.
* 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
* FFS SCG switch case for the LTM cell switch procedure supervised by the timer.
* Detailed procedure of fast recovery to a candidate cell by LTM execution at RLF or LTM execution failure (for MCG)
* FFS if the LTM specific L1 measurements of an LTM candidate SCell is independent of its activation status.
* The contents of the cell switch MAC CE
* 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
* Details of L1 measurement configuration/report for 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.

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.
* FFS on the following options for subsequent CPC:
	+ Option 1: Source MN generates the execution conditions for all subsequent CPC.
	+ Option 2: Candidate SN may generate execution conditions for subsequent CPC.
* FFS if Candidate SN may generate/modify execution conditions for subsequent CPC
* 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.
* For MN initiated procedure, execution conditions based on event A4 are supported. FFS whether A3/A5 are supported.

CHO with target SCG / candidate SCG(s)

* Overall procedures.
* For the CHO+CPC case: FFS if When CHO condition is met, but CPC condition is not met, CHO execution is triggered (and somehow source SCG can be released). IF allowed in the new configuration the UE may continue evaluation of CPC/CPA conditions.

## 2.3 RAN3

#### 2.3.1 Agreements

**RAN3 #119b-e (April 2023)**

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

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

* The Reply LS R3-232139 on L1 measurement RS configuration and PDCCH ordered RACH for LTM was agreed.
* The CU requests the candidate DU to provide RACH resource per candidate cell for TA acquisition in inter-DU case.
* No need to include the RACH resource for TA acquisition alignment in the reply LS.
* For intra-DU LTM, the gNB-DU sends a DDDS frame about unsuccessfully transmitted downlink data to the gNB-CU after LTM cell switch if RLC reestablishment is configured.
* For inter-DU LTM, the DDDS should be sent from source gNB-DU to CU-UP when the LTM cell switch command is sent. Then the CU-UP can start forwarding the unsuccessfully transmitted data to target gNB-DU.
* The gNB-CU may modify or release L1/2 Triggered Mobility (LTM) candidate cells in the gNB-DU.
* The (candidate) gNB-DU may cancel already configured L1/2 Triggered Mobility (LTM) candidate cells and notify to the CU.
* The gNB-CU may use the UE Context Modification procedure to modify or release the prepared resources of candidate cells in the (candidate) gNB-DU and use the UE Context Release procedure to release the UE context in the (candidate) gNB-DU.
* For intra-DU LTM, DDDS from gNB-DU to CU-UP is not needed for those DRBs for which RLC is not re-established. FFS on whether or how to capture it in spec.
* For intra-CU inter-DU LTM, target gNB-DU sends initial DDDS using the new UL TEID to CU-UP after target gNB-DU detects the UE access (following legacy). FFS on how to capture in spec.
* The (candidate) gNB-DU may use the UE Context Modification Required message to release the candidate cells, and the gNB-CU shall not reject.
* The (candidate) gNB-DU may use the UE Context Modification Required procedure to request to cancel the prepared resources of a subset of candidate cells in it and use the UE Context Release Request procedure to request to release all candidate cells in it.
* R3-232090, TP for 38.401, (Huawei), was agreed.
* R3-232171, TP for 38.473, (E///), was agreed.

Selective activation of cell groups

* R3-232063 (TP to TS 38.423) Support of SCG selective activation was agreed
* RAN3 assumes that a UE can be configured to keep a conditional configuration for CPA after CPA execution. The kept CPA conditional configuration is used for subsequent CPC (but with different triggering conditions). This can be revisited based on RAN2 progress.
* RAN3 should further analyze the impacts if RAN2 decides to support activation/deactivation of candidate PSCell evaluation after the first time SCG selective activation configuration.
* WA: Add a new indication as a sub IE of the Conditional PSCell Addition Information Request IE in the S-NODE ADDITION REQUEST message to indicate that the request is for SCG Selective Activation.
* For inter-SN SCG selective activation, after CPC execution, the MN needs to notify the source SN and the selected SN of the cell change.
* Reuse the following messages to update/modify/cancel the prepared candidate PSCells for SCG Selective Activation:
* SN Modification Request/ SN Modification Request Acknowledge
* SN Modification Required/ SN Modification Confirm
* Conditional PSCell Change Cancel
* SN Change Required/ SN Change Confirm
* SN Release Request / SN Release Request Acknowledge
* RAN3 eliminates the option for UPF-based data forwarding thus assuming that the number of PSCell prepared for Selective Activation will be limited and the serving PSCell will not change too often.
* Reuse the Xn-U Address Indication message and the Early Status Transfer message to support early data forwarding for SCG Selective Activation.

Support CHO in NR-DC

* R3-232172 TP for CHO with NR-DC to TS 37.340 was agreed.
* Working on including a note in TS 37.340 regarding direct data forwarding for CHO with SCG(s).
* Data forwarding optimizations should not impact legacy HO mechanism as the fundamental basis.
* Data forwarding optimizations focus on how to avoid multiple data forwarding paths.
* RAN3 focuses on the following aspects for CHO with multiple SCGs.
	+ T-MN provides the PDU session admission results of different T-SN(s) in the HO procedure considering the pair of candidate T-MN and T-SN(s).
	+ A set of data forwarding addresses are provided from candidate T-MN to the source node.

**RAN3#120 (Incheon, Korea, May 2023)**

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

* RAN3 agrees option2 and supports for multiple messages for LTM candidate cell configuration.
* WA: option 1 is adopted with only class 2 procedure. If more information to source DU in response message is needed, we go for option 2.
* For LTM without UP change case, once CUCP receives LTM cell switch signaling from (source)DU , CU CP initiates E1 bearer context modification to the CU UP including DL tunnel ID per DRB for target cell, for data transmission.
* For LTM with UP change, once the CU-CP receives LTM cell switch signaling from (source) DU, the CU-CP initiates E1 bearer context modification to the target CU UP including DL tunnel ID per DRB for target cell for data transmission.
* For LTM with UP change, the CU-CP initiates E1 bearer context modification to the source CU-UP for retrieving the latest PDCP status at the source CU-UP and exchanging the data forwarding information to target CU-UP.
* For LTM with UP change after detecting the UE has accessed to the target cell, the CU-CP initializes Path switch procedure towards the core network.
* CU can request RACH resources for early TA acquisition together with the LTM candidate cell configuration to a Candidate DU in the UE Context Setup Request or UE Context Modification Request messages (for inter-DU LMT and intra-DU LTM respectively).
* If the Candidate DU accepts the RACH resource request for early TA acquisition, the Candidate DU responds the CU with RACH configuration in the UE Context Setup Response or UE Context Modification Response messages.
* For intra-DU LTM, DDDS from gNB-DU to CU-UP is not needed for those DRBs RLC is not re-established.
* For both intra-DU and inter-DU LTM, target gNB-DU sends initial DDDS using the new UL TEID, if new UL TEID being assigned, to CU-UP after target gNB-DU detects the UE access.
* R3-233453, TP for 38.401, inter-DU LTM with UP change procedure (Huawei), agreed.
* R3-233495, TP for 38.401, stage 2 procedure update (ZTE), agreed.
* [R3-23](file:///C%3A%5C%5CRAN3%5C%5C120%5C%5CDocs%5C%5CR3-232760.zip)3461, TP for 38.473, (E///), agreed.

Selective activation of cell groups

* R3-233524 (TP to TS 38.423) Support of SCG selective activation was agreed.
* Add a new IE as a sub IE of the *Conditional PSCell Change Information Required* IE in the S-NODE CHANGE REQUIRED message to indicate that the request is for SCG Selective Activation.
* Add a new IE as a sub IE of the *Conditional PSCell Addition Information Request* IE in the S-NODE ADDITION REQUEST message to indicate that the request is for SCG Selective Activation.

Support CHO in NR-DC

* Regarding avoiding duplication of the data forwarding:
	+ RAN3 confirms the problem that is to be solved is avoiding that the single T-SN receives the same data from multiple T-MNs prepared for CHO (assuming there are multiple T-MNs prepared with the same T-SN).
	+ RAN3 agrees to enable the T-SN to let the T-MN know if it has direct path available to S-MN (or to both, S-SN and S-MN).
* Regarding avoiding unnecessary CHO cancellation: RAN3 agrees to enable the T-MN to inform the S-MN if the CHO is prepared with full or delta configuration.

#### 2.3.2 Remaining Open issues

Signaling support for L1/L2 based inter-cell mobility

* RAN3 need to consider potential RAN3 spec impact for the following two cases:
	+ without RAR
* FFS on following aspects
	+ The time to trigger the CU-UP to start data transmission to target DU
	+ E1 Aspects
	+ Handover collision avoidance between LTM and L3 handover
	+ RAN3 signaling impacts related to latest RAN2/RAN1 agreements, e.g., Reference configuration, TCI state transfer, L1 measurement configuration and reporting, etc.
	+ RAN3 impact on support of subsequent LTM
	+ TA info acquisition and transfer

Selective activation of cell groups

* Stage 2/3 details on introduction of SCG Selective Activation related IEs.

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 #106bis-e (April. 2023)**

* WF on NR Mobility Enhancements RRM requirements (part 1) approved in [1]
* WF on NR Mobility Enhancements RRM requirements (part 2) approved in [2]

L1/L2 based inter-cell mobility

* Inter-frequency cell switch is defined where the SSB of SpCell and the candidate target cell are on different frequency layers.
	+ Further discuss whether to capture the definition in spec when writing CRs.
* The legacy transmit timing accuracy requirement in 38.133 cl.7.1.2 is also applicable to PDCCH ordered RACH transmission for candidate cell(s) before cell switch command.
	+ FFS: SSB based T/F fine tracking is needed for UE to meet Te requirements
* Further discuss whether and how to define interruption and/or scheduling restriction requirements due to PDCCH ordered RACH before cell switch command once corresponding RAN1 design is stable.
* Whether to use L3 intermediate results for L1 report
	+ Do not use L3 intermediate results for FR1 intra-frequency L1 report and FR1 inter-frequency L1 report
		- FFS on the assumptions on the number of cells used for L1 measurements
		- Note: Intermediate L3 measurement results are any measurements samples or average of the samples obtained for the purpose of L3 reporting
	+ FFS whether to recommend RAN1/2 to consider a new reporting mechanism
	+ FFS whether to use final L3 measurement results for FR1 intra-frequency L1 measurement report or for FR1 inter-frequency L1 measurement report.
* The supported maximum number of cells/SSBs configured for L1 measurement [on neighbour cell] is up to UE capability
	+ Details of capability signalling are FFS including at least:
		- Whether to differentiate intra and inter-frequency measurements
		- Constraints on the lowest value of the capability
		- Signalling granularity
* No need to define requirements for SCell during SCell addition (without activation) at SpCell change
* No more discussion until RAN2 concludes to support direct SCell activation at SpCell change
* Specify cell switch requirements for the following scenarios:
	+ Target Pcell/SCell is current SCell/PCell.
* Ending point of RACH-less cell switch delay for PCell/PSCell
	+ Wait for more progress in RAN2
* The baseline of RACH-based cell switch delay requirements is Tdelay = Tcmd + Tprocessing / TLTM-processing + Tsearch + T∆ + Tmargin + Tuncertainity /TIU, where Tuncertainity /TIU is the uncertainty in acquiring the first available PRACH occasion in the new cell.
	+ FFS: the exact value of each component. Some components can be 0 in certain cases, if agreed.
	+ FFS: add/remove/modify other component(s).

Note: ‘/’ means ‘or’ here.

* The baseline of RACH-less cell switch delay requirements is Tdelay = Tcmd + Tprocessing,2 / TLTM-processing + Tsearch + T∆ + Tmargin + Tuncertainity/TIU
	+ FFS: the ending point
	+ FFS: the exact value of each component. Some components can be 0 in certain cases, if agreed.
	+ FFS: add/remove/modify other component(s).

Note: ‘/’ means ‘or’ here.

* Tcmd equals to THARQ+3ms, where THARQ is the timing between cell switch command and acknowledgement as specified in TS 38.213.
* Execution time
	+ Wait for RAN2 progress.

NR-DC with selective activation of cell groups

* Starting point of subsequent CPC in RRM requirements is the time when UE transmits SN RRCReconfigurationcomplete message for the previous PSCell addition or change.
* Ending point of subsequent CPC in RRM requirements is the transmission of PRACH preamble towards the target PSCell.
* For subsequent CPC delay requirements:if starting point is the time when UE completes the previous CPC/CPA, Tconfig\_PSCell\_Subsequent\_Change\_Conditional = TEvent\_DU + Tmeasure + TUE\_preparation + Tprocessing + T∆ + TPSCell\_ DU + 2 ms and the definition of each component is the same as 8.11B.2 in TS38.133except that TEvent\_DU needs to be updated.
* TEvent\_DU is the delay uncertainty which is the time from [when UE transmits SN RRCReconfigurationcomplete message for the previous PSCell addition or change] until a condition exists at the measurement reference point which will trigger the subsequent conditional PSCell change.

Improvement on FR2 Scell/SCG setup/resume delay

* Solution based on existing measurement and solution based on enhanced measurement are not mutual exclusive. The two solutions are be discussed in parallel.
* definition of ‘valid’ in solution based on existing measurement
	+ Candidate criteria for measurements validity definition
		- A) the measurement are performed within the last [X] seconds before it is reported
		- B) the reported measurement results satisfy measurement accuracy
		- C) variation of serving cell RSRP/RSRQ does not exceed [Y] dB
	+ FFS whether a single or several criteria should be used for measurements validity definition.
* If only existing measurement, including legacy measurement for cell re-selection and EMR are used, existing cell re-selection requirements (4.2, 38.133) and idle mode CA/DC measurement requirements (4.4, 38.133) can be reused.
* UE is not expected to perform enhanced measurement on FR2 more than one carrier per band. FFS: on the selection of carriers if multiple carriers are configured per band in FR2.

Enhanced CHO configurations

* Define requirements for the following scenarios:
	+ Scenario 1: CHO including target MCG and target SCG in NR-DC. (obj. 3)
	+ Scenario 2: CHO including target MCG and candidate SCG for CPC/CPA in NR-DC (obj. 4)
* frequency range
	+ Both FR1+FR2 and FR1+FR1 NR-DC are in scope of RRM requirements for enhanced CHO configurations.
	+ RAN4 shall start from FR1+FR2 NR-DC. Discussion on FR1+FR1 NR-DC will start from RAN4#108.
* PCell handover delay in CHO including target MCG and target SCG in FR1+FR2 NR-DC (obj. 3) is defined as
	+ DCHOwithPSCell\_PCell = TRRC + TEvent\_DU + Tmeasure + Tprocessing + TIU + T∆ + Tmargin + TCHO\_execution.
	+ Definition of each component, except Tprocessing, is same as that defined in CHO requirement in TS38.133 clause 6.4.1.2.
	+ Definition of Tprocessing:
		- Option 1: same as that defined in requirements of handover with PSCell.
		- Option 2: same as that defined in requirements of CHO.

**RAN4 #107 (May 2023, Incheon, Korea)**

* WF on NR Mobility Enhancements RRM requirements (part 1) approved in [3]
* WF on NR Mobility Enhancements RRM requirements (part 2) approved in [4]

L1/L2 based inter-cell mobility

* Common understanding is that RAN4 does not need to define any new requirements for obtaining symbol boundary and frame boundary of target cell before cell switch command, as legacy requirements for PSS/SSS detection and time index detection apply, if needed.
* Common understanding is that RAN4 does not need to define any new requirements for SFN acquisition delay of target cell before cell switch command, as legacy requirements of SFN acquisition delay defined for L3 CSI-RS measurement in table 9.10.2.5-3 or Table 9.10.3.5-3 or TSSB\_time\_index\_inter in Clause 9.3.4 apply, if needed.
* For DL T/F tracking to the candidate cells, at least one SSB is available at the UE during the last 160ms to satisfy transmit timing requirements.
* Time gap between a PDCCH order and the corresponding PRACH transmission will be captured in RAN1 spec as legacy.
* RAN4 to reuse the existing condition to meet the Te requirement in section 7.1.2 in TS38.133 for PDCCH ordered RACH transmission for candidate cell(s), i.e., at least one SSB is available (for T/F tracking)
	+ at the UE during the last 160ms before msg1 is transmitted, and
	+ FFS:
		- after the random access is initiated by PDCCH order or other IE
		- other side condition
* On top of specified delay requirement in RAN1 as below the RAN4 agreed
	+ For PDCCH ordered CFRA, the minimum timing gap between PDCCH order reception and Msg1 transmission is
		- $N\_{T,2}+ ∆\_{BWPSwitching}+∆\_{Delay}+T\_{switch}$
	+ Do not change ∆Delay component
	+ FFS for ∆BWPSwitching
		- FFS whether DCI-based or RRC-based BWP switching should be applied
		- FFS whether to keep or remove the component
	+ FFS for additional delays components
		- Option 1: 1 SSB occasion for T/F tracking
		- Option 2: additional time for RF and/or BB preparation and retuning
* For the baseline “UE is NOT expected to use L3 measurement results for intra-frequency or inter-frequency L1 measurement report”:
	+ For the behaviour of the NW, L3 measurement report is not the prerequisite of L1 measurement configuration.
	+ From the view of UE, UE should have performed L3 measurement on the neighbour cell before UE performs L1 measurement on that cell.
	+ Decide whether to support the case that target SSB is not within active BWP for intra-frequency L1 measurement in R18 LTM in RAN4#108 meeting.
* Common understanding: Before L1-RSRP measurement, UE should achieve frame/slot/symbol level synchronization including acquiring SSB index information (on which symbols the RS to-be-measured) of the to-be-measured neighbour cell, otherwise cell detection delay and SSB index acquisition delay are needed.
* Whether to use final L3 measurement results for L1 measurement report
	+ Baseline: UE is NOT expected to use L3 measurement results for intra-frequency or inter-frequency L1 measurement report
		- UE shall support L1 measurements for at least [2 or 3] neighboring cells
	+ Introduce optional UE support to use L3 measurement results for intra-frequency or inter-frequency L1 measurement report
		- Note 1: No impact on RAN1/2 design is expected
		- Note 2: the principles of the solution need to be agreed in RAN4 #108 meetings and the mechanism can be removed if no consensus reached on solution.
* Define L1-RSRP measurement requirements for the case that SSB periodicity of neighbour cell and serving cell equals to SMTC periodicity in R18 LTM.
* Type of inter-frequency L1-RSRP measurement to support
	+ Define the requirement for inter-frequency L1-RSRP measurement with type 1 MG as a baseline.
		- FFS: whether L1/L3 may share the MG or not, depending on the conclusion of the other issue 2-2-1.
	+ Define the requirement for Inter-frequency without gap (target SSB within DL active BWP) with UE capability.
		- FFS: The details of the capability.
	+ Not consider L1 inter-frequency with NCSG in R18 LTM.
	+ Not consider L1 inter-frequency with NeedforGap in R18 LTM.
	+ FFS: whether to support type 2 MG in R18 LTM.
* The following scenarios are supported in R18 LTM
	+ The scenarios list in the following table:

|  |  |  |
| --- | --- | --- |
| Cell switch scenario | CA/DC setup before cell switch | FR scenario (intra- and inter-frequency) |
| PCell switch to a neighbour cell | SA: PCell configuredCA: PCell and one or more SCells configuredDC: PCell and PSCell configured (and one or more SCells in SCG and/or MCG) | FR1 PCell 🡪 FR1 cellFR1 PCell 🡪 FR2 cellFR2 PCell 🡪 FR1 cellFR2 PCell 🡪 FR2 cell |
| PSCell switch to a neighbour cell | DC: PCell and PSCell configured (and one or more SCells in SCG and/or MCG) | FR1 PSCell 🡪 FR1 cellFR1 PSCell 🡪 FR2 cellFR2 PSCell 🡪 FR1 cellFR2 PSCell 🡪 FR2 cell |
| Role switch between PCell and one of the configured SCells in MCG | CA: PCell and one or more SCells configuredDC: PCell, PSCell and at least one SCell in MCG configured | FR1 PCell ↔ FR1 MCG SCell |
| Role switch between PSCell and one of the configured SCells in SCG | DC: PCell, PSCell and at least one SCell in SCG configured | FR1 PSCell ↔ FR1 SCG SCellFR2 PSCell ↔ FR2 SCG SCell |

* + PCell switch to a current SCell in MCG (without PCell becoming a new SCell)
	+ PSCell switch to a current SCell in SCG (without PSCell becoming a new SCell)
* RAN4 hold on the discussion on RRM requirements for SpCell change with SCell change until RAN2 concludes to support direct SCell activation at SpCell change.
* Not define RACH-based cell switch delay requirements for unknown cell case, at least in R18.
* Not define RACH-less cell switch delay requirements for unknown cell case, at least in R18.

NR-DC with selective activation of cell groups

* Keep Tevent\_DU in subsequent CPC delay requirements. Both TEvent\_DU ≠ 0 and TEvent\_DU = 0 can be covered. No need to explicitly define the cases where Tevent\_DU=0.
* whether to UE shall evaluate the execution condition of other candidate PSCells while executing CPC
	+ No. According to TS37.340 and RAN2 agreements, 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

* In new reporting in R18, UE does not report the invalid results to NW.

Enhanced CHO configurations

* CHO including target MCG and target SCG in NR-DC (obj. 3)
	+ Tprocessing is same as that defined in requirements of handover with PSCell.
	+ DCHOwithPSCell\_PSCell = TRRC + TEvent\_DU + Tmeasure + TCHO\_execution + Tprocessing + Tsearch\_PCell\_Conditional + Tsearch\_PSCell + T∆\_PSCell + TPSCell\_ DU + 2 ms, where
		- The definitions of TRRC, TEvent\_DU, Tmeasure, TCHO\_execution, Tprocessing are the same as the definitions in the delay requirements for Pcell
		- Tsearch\_PCell\_Conditional is the time for obtaining the timing reference of target PCell. If SMTC of the target unknown PSCell is configured in *targetcellSMTC-SCG-r16* but not configured in *reconfigurationWithSync*, Tsearch\_PCell\_Conditional = TΔ + Tmargin, where TΔ has the same definition in the delay requirements for PCell and Tmargin =2ms. Otherwise, Tsearch\_PCell\_Conditional = 0 ms.
		- TPSCell\_ DU is the delay uncertainty in acquiring the first available PRACH occasion in the PSCell. TPSCell\_ DU is up to the summation of SSB to PRACH occasion association period and 10 ms as UE can transmit RACH on different FR simultaneously in FR1+FR2 NR-DC.

#### 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 delay requirements when RTD of serving cell and neighbor cell is larger than CP
	+ Discuss how to specify intra-frequency L1-RSRP measurement delay requirements for multiple cells in FR2
	+ Discuss how to specify inter-frequency L1-RSRP measurement delay requirements
	+ Discuss how to specify pre- DL and/or UL synchronization requirements
	+ 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

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 how to define requirements for CHO including target MCG and candidate SCG for CPC/CPA in NR-DC (obj. 4)
* Further discuss how to define the requirements for FR1+FR1 NR-DC

## 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. R4-2306395 WF on NR Mobility Enhancements RRM requirements (part 1), MediaTek inc.
2. R4-2306356 WF on NR Mobility Enhancements RRM requirements (part 2), Apple
3. R4-2306395 WF on NR Mobility Enhancements RRM requirements (part 1), MediaTek inc.
4. R4-2306356 WF on NR Mobility Enhancements RRM requirements (part 2), Apple

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| **[R1-2302315](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302315.zip)** | L1 enhancements for inter-cell beam management | FUTUREWEI |
| **[R1-2302316](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302316.zip)** | On TA acquisition schemes of UE based RACH-less and early RACH with RAR | FUTUREWEI |
| **[R1-2302368](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302368.zip)** | L1 enhancements for inter-cell beam management | Huawei, HiSilicon |
| **[R1-2302369](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302369.zip)** | Timing advance management to reduce latency | Huawei, HiSilicon |
| **[R1-2302410](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302410.zip)** | FL plan on L1 enhancements for LTM at RAN1#112bis-e | Moderator (Fujitsu, MediaTek) |
| **[R1-2302413](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302413.zip)** | L1 enhancements to inter-cell beam management | Ericsson |
| **[R1-2302414](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302414.zip)** | Timing advance management for L1/L2 Mobility | Ericsson |
| **[R1-2302423](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302423.zip)** | L1 enhancements for inter-cell beam management | ZTE |
| **[R1-2302424](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302424.zip)** | Enhancements on TA management to reduce latency | ZTE |
| **[R1-2302504](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302504.zip)** | Discussion on L1 enhancements for L1/L2 mobility | vivo |
| **[R1-2302505](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302505.zip)** | Discussion on TA management for L1/L2 mobility | vivo |
| **[R1-2302568](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302568.zip)** | Discussions on Inter-cell beam management enhancement | OPPO |
| **[R1-2302569](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302569.zip)** | Discussions on Timing Advance Management | OPPO |
| **[R1-2302619](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302619.zip)** | Discussion on L1 enhancements for inter-cell beam management | Spreadtrum Communications |
| **[R1-2302620](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302620.zip)** | Discussion on timing advance management to reduce latency | Spreadtrum Communications |
| **[R1-2302730](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302730.zip)** | L1 enhancements for inter-cell beam management | Lenovo |
| **[R1-2302731](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302731.zip)** | Timing advancement management for L1L2 mobility | Lenovo |
| **[R1-2302752](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302752.zip)** | Discussion on L1 enhancements for inter-cell beam management | NEC |
| **[R1-2302814](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302814.zip)** | On Timing Advance Management | Intel Corporation |
| **[R1-2302819](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302819.zip)** | L1 Enhancements for Inter-cell Beam Management | Intel Corporation |
| **[R1-2302830](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302830.zip)** | Layer-1 Enhancements for L1/L2-triggered Mobility | Nokia, Nokia Shanghai Bell |
| **[R1-2302831](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302831.zip)** | Timing Advance Management for L1/L2-triggered Mobility | Nokia, Nokia Shanghai Bell |
| **[R1-2302860](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302860.zip)** | Discussion on L1 enhancements for inter-cell beam management | Sony |
| **[R1-2302867](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302867.zip)** | Discussion on L1 enhancements for L1L2-triggered mobility | Panasonic |
| **[R1-2302869](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302869.zip)** | Discussion on time advance management to reduce latency | CATT |
| **[R1-2302870](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302870.zip)** | Discussion on L1 enhancements for inter-cell beam management | CATT |
| **[R1-2302914](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302914.zip)** | Views on L1 enhancements for inter-cell beam management | Fujitsu |
| **[R1-2302966](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302966.zip)** | Discussion on L1 enhancements for inter-cell beam management | Xiaomi |
| **[R1-2302967](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2302967.zip)** | Discussion on Timing advance management | xiaomi |
| **[R1-2303021](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303021.zip)** | FL summary 1 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |
| **[R1-2303022](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303022.zip)** | FL summary 2 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |
| **[R1-2303082](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303082.zip)** | Enhancements on inter-cell beam management for mobility | LG Electronics |
| **[R1-2303083](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303083.zip)** | Enhancements on TA management for mobility | LG Electronics |
| **[R1-2303148](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303148.zip)** | On L1 enhancements for inter-cell beam management | Samsung |
| **[R1-2303149](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303149.zip)** | Candidate cell TA acquisition for NR L1/L2 mobility enhancement | Samsung |
| **[R1-2303253](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303253.zip)** | Discussion on L1 enhancements for inter-cell beam management | CMCC |
| **[R1-2303254](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303254.zip)** | Discussion on timing advance management to reduce latency | CMCC |
| **[R1-2303260](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303260.zip)** | Discussion on Timing advance management to reduce latency | CAICT |
| **[R1-2303288](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303288.zip)** | Discussion on L1 enhancements for inter-cell mobility | KDDI Corporation |
| **[R1-2303290](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303290.zip)** | Discussion on Timing advance management to reduce latency | KDDI Corporation |
| **[R1-2303331](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303331.zip)** | L1 enhancements for inter-cell beam management | MediaTek Inc. |
| **[R1-2303362](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303362.zip)** | UL Timing management to reduce handover latency | MediaTek Inc. |
| **[R1-2303381](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303381.zip)** | Discussion on TA management for L1/L2 mobility | Transsion Holdings |
| **[R1-2303410](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303410.zip)** | Discussion on L1 enhancements for inter-cell beam management | FGI |
| **[R1-2303455](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303455.zip)** | Discussion on L1 enhancements for inter-cell beam management | InterDigital, Inc. |
| **[R1-2303456](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303456.zip)** | Discussion on timing advance management to reduce latency | InterDigital, Inc. |
| **[R1-2303503](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303503.zip)** | L1 enhancements to inter-cell beam management | Apple |
| **[R1-2303504](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303504.zip)** | Timing advance management for L1/L2 Mobility | Apple |
| **[R1-2303518](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303518.zip)** | Discussion on L1 enhancements for inter-cell beam management | Google |
| **[R1-2303519](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303519.zip)** | Discussion on timing advance management to reduce latency | Google |
| **[R1-2303610](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303610.zip)** | L1 Enhancements for Inter-Cell Beam Management | Qualcomm Incorporated |
| **[R1-2303611](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303611.zip)** | TA management to reduce latency for L1/L2 based mobility | Qualcomm Incorporated |
| **[R1-2303727](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303727.zip)** | Discussion on L1 enhancements for inter-cell mobility | NTT DOCOMO, INC. |
| **[R1-2303728](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303728.zip)** | Timing advance enhancement for inter-cell mobility | NTT DOCOMO, INC. |
| **[R1-2303782](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303782.zip)** | Discussion on TA management to reduce latency | ITRI |
| R1-2303875 | Candidate cell TA acquisition for NR L1/L2 mobility enhancement | Samsung R&D Institute India |
| **[R1-2303984](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2303984.zip)** | Moderator summary on Timing advance management for LTM: Round 1 | Moderator (CATT) |
| **[R1-2304060](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2304060.zip)** | Moderator summary on Timing advance management for LTM: Round 2 | Moderator (CATT) |
| **[R1-2304069](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2304069.zip)** | Moderator summary on Timing advance management for LTM: Round 3 | Moderator (CATT) |
| **[R1-2304090](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2304090.zip)** | FL summary 3 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |
| **[R1-2304091](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2304091.zip)** | FL summary 4 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |
| **[R1-2304135](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2304135.zip)** | Moderator summary on Timing advance management for LTM: Round 4 | Moderator (CATT) |
| **[R1-2304173](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2304173.zip)** | Session notes for 9.10 (Further NR mobility enhancements) | Ad-Hoc Chair (CMCC) |
| **[R1-2304274](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2304274.zip)** | Final FL summary on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |
| **[R1-2304275](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2304275.zip)** | DRAFT LS on beam indication of target cell(s) and time gap between a PDCCH order and the corresponding PRACH transmission for LTM | Fujitsu, MediaTek, CATT |
| **[R1-2304276](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_112b-e/Docs/R1-2304276.zip)** | LS on beam indication of target cell(s) and time gap between a PDCCH order and the corresponding PRACH transmission for LTM | RAN1, Fujitsu, MediaTek, CATT |

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| **[R1-2304352](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304352.zip)** | L1 enhancements for inter-cell beam management | FUTUREWEI |
| **[R1-2304353](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304353.zip)** | Discussion on UE based RACH-less TA determination | FUTUREWEI |
| R1-2304388 | UL Timing management to reduce handover latency | MediaTek Inc. |
| **[R1-2304399](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304399.zip)** | L1 enhancements for inter-cell beam management | ZTE |
| **[R1-2304400](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304400.zip)** | Enhancements on TA management to reduce latency | ZTE |
| **[R1-2304498](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304498.zip)** | Discussion on L1 enhancements for L1/L2 mobility | vivo |
| **[R1-2304499](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304499.zip)** | Discussion on TA management for L1/L2 mobility | vivo |
| **[R1-2304576](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304576.zip)** | Discussion on L1 enhancements for inter-cell beam management | Spreadtrum Communications |
| **[R1-2304577](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304577.zip)** | Discussion on timing advance management to reduce latency | Spreadtrum Communications |
| **[R1-2304588](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304588.zip)** | FL plan on L1 enhancements for LTM at RAN1#113 | Moderator (Fujitsu, MediaTek) |
| **[R1-2304659](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304659.zip)** | L1 enhancements for inter-cell beam management | Huawei, HiSilicon |
| **[R1-2304660](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304660.zip)** | Timing advance management to reduce latency | Huawei, HiSilicon |
| **[R1-2304712](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304712.zip)** | Further discussion on L1 enhancements for inter-cell beam management | CATT |
| **[R1-2304713](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304713.zip)** | Discussion on time advance management to reduce latency | CATT |
| **[R1-2304774](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304774.zip)** | Views on L1 enhancements for inter-cell beam management | Fujitsu |
| **[R1-2304785](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304785.zip)** | L1 enhancements to inter-cell beam management | Ericsson |
| **[R1-2304786](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304786.zip)** | Timing advance management for L1/L2 Mobility | Ericsson |
| R1-2304822 | On Timing Advance Management | Intel Corporation |
| **[R1-2304823](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304823.zip)** | L1 Enhancements for Inter-cell Beam Management | Intel Corporation |
| **[R1-2304880](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304880.zip)** | Discussion on L1 enhancements for inter-cell beam management | xiaomi |
| **[R1-2304881](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304881.zip)** | Discussion on Timing advance management | xiaomi |
| **[R1-2304957](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304957.zip)** | L1 enhancements for inter-cell beam management | Lenovo |
| **[R1-2304958](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2304958.zip)** | Timing advancement management for L1L2 mobility | Lenovo |
| **[R1-2305007](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305007.zip)** | L1 enhancements for inter-cell beam management | KDDI Corporation |
| **[R1-2305010](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305010.zip)** | Discussion on L1 enhancements for inter-cell beam management | Google |
| **[R1-2305011](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305011.zip)** | Discussion on timing advance management to reduce latency | Google |
| **[R1-2305023](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305023.zip)** | Discussion on timing advance management to reduce latency | CAICT |
| **[R1-2305050](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305050.zip)** | L1 enhancements for inter-cell beam management | Sony |
| **[R1-2305072](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305072.zip)** | Discussion on L1 enhancements for inter-cell beam management | NEC |
| **[R1-2305112](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305112.zip)** | Discussion on L1 enhancements for inter-cell beam management | CMCC |
| **[R1-2305113](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305113.zip)** | Discussion on timing advance management to reduce latency | CMCC |
| **[R1-2305128](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305128.zip)** | FL summary 1 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |
| **[R1-2305130](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305130.zip)** | FL summary 2 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |
| **[R1-2305156](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305156.zip)** | Layer-1 Enhancements for L1/L2-triggered Mobility | Nokia, Nokia Shanghai Bell |
| **[R1-2305157](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305157.zip)** | Timing Advance Management for L1/L2-triggered Mobility | Nokia, Nokia Shanghai Bell |
| **[R1-2305263](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305263.zip)** | L1 enhancements to inter-cell beam management | Apple |
| **[R1-2305264](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305264.zip)** | Timing advance management for L1/L2 triggered mobility | Apple |
| **[R1-2305302](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305302.zip)** | Enhancements on inter-cell beam management for mobility | LG Electronics |
| **[R1-2305303](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305303.zip)** | Enhancements on TA management for mobility | LG Electronics |
| **[R1-2305356](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305356.zip)** | L1 Enhancements for Inter-Cell Beam Management | Qualcomm Incorporated |
| **[R1-2305357](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305357.zip)** | TA management to reduce latency for L1/L2 based mobility | Qualcomm Incorporated |
| **[R1-2305418](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305418.zip)** | Discussions on Inter-cell beam management enhancement | OPPO |
| **[R1-2305419](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305419.zip)** | Discussions on Timing Advance Management | OPPO |
| **[R1-2305480](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305480.zip)** | Discussion on multi-TA indication for LTM | ASUSTEK COMPUTER |
| **[R1-2305533](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305533.zip)** | On L1 enhancements for inter-cell beam management | Samsung |
| **[R1-2305534](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305534.zip)** | Candidate cell TA acquisition for NR L1/L2 mobility enhancement | Samsung |
| **[R1-2305613](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305613.zip)** | Discussion on L1 enhancements for inter-cell mobility | NTT DOCOMO, INC. |
| **[R1-2305614](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305614.zip)** | Timing advance enhancement for inter-cell mobility | NTT DOCOMO, INC. |
| **[R1-2305645](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305645.zip)** | UL Timing management to reduce handover latency | MediaTek Inc. |
| **[R1-2305667](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305667.zip)** | L1 enhancements for inter-cell beam management | MediaTek Inc. |
| **[R1-2305693](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305693.zip)** | Discussion on L1 enhancements for L1L2-triggered mobility | Panasonic |
| **[R1-2305712](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305712.zip)** | Discussion on measurement enhancement of L1L2 triggered mobility | Transsion Holdings |
| **[R1-2305713](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305713.zip)** | Discussion on TA management for L1/L2 mobility | Transsion Holdings |
| **[R1-2305775](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305775.zip)** | Discussion on TA management for mobility enhancement | ITRI |
| **[R1-2305783](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305783.zip)** | Discussion on L1 enhancements for inter-cell beam management | FGI |
| **[R1-2305784](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305784.zip)** | Discussion on TA management for LTM | FGI |
| **[R1-2305856](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305856.zip)** | Discussion on L1 enhancements for inter-cell beam management | InterDigital, Inc. |
| **[R1-2305857](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305857.zip)** | Discussion on timing advance management | InterDigital, Inc. |
| **[R1-2305962](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2305962.zip)** | Candidate cell TA acquisition for NR L1/L2 mobility enhancement | Samsung |
| **[R1-2306035](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2306035.zip)** | Moderator summary on Timing advance management for LTM: Round 1 | Moderator (CATT) |
| **[R1-2306123](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_113/Docs/R1-2306123.zip)** | Moderator summary on Timing advance management for LTM: Round 2 | Moderator (CATT) |
| R1-2306147 | Session notes for 9.10 (Further NR mobility enhancements) | Ad-Hoc Chair (CMCC) |
| R1-2306158 | Moderator summary on Timing advance management for LTM: Round 3 | Moderator (CATT) |
| R1-2306167 | FL summary 3 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |
| R1-2306168 | FL summary 4 on L1 enhancements for inter-cell beam management | Moderator (Fujitsu, MediaTek) |

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| **[R2-2302412](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302412.zip)** | LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM (R1-2302194; contact: Fujitsu, CATT) | RAN1 |
| **[R2-2302432](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302432.zip)** | Reply LS on L1 intra- and inter- frequency measurement and configurations for L1/L2-based inter-cell mobility (R4-2303308; contact: CATT) | RAN4 |
| **[R2-2302450](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302450.zip)** | Reply LS R2-2213337 LS on security for selective SCG activation (S3-231397; contact: Nokia) | SA3 |
| **[R2-2302458](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302458.zip)** | LS on Approaches during execution for inter-DU LTM (R3-230889; contact: Ericsson) | RAN3 |
| **[R2-2302484](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302484.zip)** | L1 Measurement for Cell Switch | NEC |
| **[R2-2302485](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302485.zip)** | Failure handling for L1/L2 triggered mobility | NEC |
| **[R2-2302486](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302486.zip)** | UE identification during cell swtich | NEC |
| **[R2-2302507](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302507.zip)** | Discussion on RACH-less LTM | CATT |
| **[R2-2302508](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302508.zip)** | Discussion on Applicable Scenarios and Procedure | CATT |
| **[R2-2302509](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302509.zip)** | Discussions on Cell Switch | CATT |
| **[R2-2302510](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302510.zip)** | Discussion on Selective Activation of Cell Groups in NR-DC | CATT |
| **[R2-2302511](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302511.zip)** | Discussion on CHO including target MCG and candidate SCGs | CATT |
| **[R2-2302552](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302552.zip)** | Discussion on RRC aspects for LTM | CATT |
| **[R2-2302591](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302591.zip)** | Early Timing Advance Management for LTM | Samsung Electronics Co., Ltd |
| **[R2-2302592](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302592.zip)** | Open issues for Cell Switching | Samsung Electronics Co., Ltd |
| **[R2-2302605](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302605.zip)** | On combined triggering of mobility changes and RACH-less in sequential LTM | Futurewei |
| **[R2-2302606](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302606.zip)** | Configuration and handling of sequential LTM and RACH-less | Futurewei |
| **[R2-2302607](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302607.zip)** | Discussion on issues with L1L2 dynamic mobility and RACH-less | Futurewei |
| **[R2-2302731](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302731.zip)** | Security impacts of inter gNB-DU LTM | Rakuten Symphony |
| **[R2-2302732](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302732.zip)** | Discussion of reference configuration for LTM | Intel Corporation |
| **[R2-2302733](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302733.zip)** | Discussion on LTM cell switch | Intel Corporation |
| **[R2-2302734](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302734.zip)** | Discussion on selective activation of cell groups | Intel Corporation |
| **[R2-2302750](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302750.zip)** | Discussion on the early TA acquisition | Intel Corporation |
| **[R2-2302751](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302751.zip)** | Discussion on CHO including candidate SCGs | Intel Corporation |
| **[R2-2302752](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302752.zip)** | Discussion on RACH-less LTM | Intel Corporation |
| **[R2-2302754](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302754.zip)** | Considerations on L1 measurement configuration for LTM | Panasonic |
| **[R2-2302766](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302766.zip)** | Discussion on RACH-less Handover for L1/L2 Triggered Mobility | Rakuten Symphony |
| **[R2-2302778](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302778.zip)** | Performance Enhancements for L1/L2 Triggered Mobility | Rakuten Symphony |
| **[R2-2302779](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302779.zip)** | Delayed Resource Reservation for inter gNB-DU L1/L2 Triggered Mobility | Rakuten Symphony |
| **[R2-2302804](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302804.zip)** | Discussion on LTM procedures | vivo |
| **[R2-2302805](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302805.zip)** | Configurations of Candidate Cell for LTM | vivo |
| **[R2-2302806](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302806.zip)** | L2 Reset and triggering MAC CE for LTM | vivo |
| **[R2-2302807](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302807.zip)** | Remaining issues for NR-DC with selective activation cell of groups | vivo |
| **[R2-2302808](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302808.zip)** | Discussion on evaluation and execution of CHO with CPAC | vivo |
| **[R2-2302809](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302809.zip)** | Discussion on CHO with CPAC signaling procedure | vivo |
| **[R2-2302829](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302829.zip)** | Discussion on LTM procedures | Qualcomm Inc. |
| **[R2-2302830](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302830.zip)** | Race conditions in LTM | Qualcomm Inc. |
| **[R2-2302831](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302831.zip)** | RRC Aspects of LTM | Qualcomm Inc. |
| **[R2-2302832](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302832.zip)** | Dynamic switch in LTM | Qualcomm Inc. |
| **[R2-2302876](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302876.zip)** | RRC aspects for LTM | Huawei, HiSilicon |
| **[R2-2302877](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302877.zip)** | Cell switch solutions and L2 behaviours in LTM | Huawei, HiSilicon |
| **[R2-2302878](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302878.zip)** | NR-DC with selective SCG activatiion | Huawei, HiSilicon |
| **[R2-2302934](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302934.zip)** | Report of [Post121][044][eMob] SCG Selective Activation in NR-DC Signalling interaction | Qualcomm Incorporated |
| **[R2-2302935](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302935.zip)** | CHO with multiple candidate SCGs | Qualcomm Incorporated |
| **[R2-2302936](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302936.zip)** | SCG Selective Activation in NR-DC | Qualcomm Incorporated |
| **[R2-2302945](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302945.zip)** | [Draft] Reply LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | Fujitsu, CATT |
| **[R2-2302946](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302946.zip)** | Discussion on replying to the RAN1 LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | Fujitsu, CATT |
| **[R2-2303008](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303008.zip)** | LTM procedure for different scenarios | Fujitsu |
| **[R2-2303009](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303009.zip)** | RRC aspects of L1/L2 triggered mobility | Fujitsu |
| **[R2-2303024](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303024.zip)** | Discussion on general procedure for LTM | OPPO |
| **[R2-2303025](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303025.zip)** | Discussion on RRC related issues for LTM | OPPO |
| **[R2-2303026](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303026.zip)** | Open issues on dynamic switching for LTM | OPPO |
| **[R2-2303027](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303027.zip)** | Discussion on selective activation of SCGs for NR-DC | OPPO |
| **[R2-2303028](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303028.zip)** | TP of 38.331 for selective activation of SCGs for NR-DC | OPPO |
| **[R2-2303029](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303029.zip)** | Discussions on CHO including target MCG and candidate SCGs | OPPO |
| **[R2-2303061](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303061.zip)** | Early TA Acquisition in L1L2-triggered Mobility | MediaTek Inc. |
| **[R2-2303062](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303062.zip)** | RRC Aspects of L1L2-triggered Mobility | MediaTek Inc. |
| **[R2-2303065](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303065.zip)** | Considerations on Cell Switch for LTM | Samsung |
| **[R2-2303066](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303066.zip)** | Considerations on Subsequent CPAC after SCG Change | Samsung |
| **[R2-2303072](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303072.zip)** | Discussion on RRC Reconfiguration Aspects | Nokia, Nokia Shanghai Bell |
| **[R2-2303073](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303073.zip)** | On the cell switch in LTM | Nokia, Nokia Shanghai Bell |
| **[R2-2303165](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303165.zip)** | On RA, TA Acquisition and Maintenance in LTM | Nokia, Nokia Shanghai Bell |
| **[R2-2303166](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303166.zip)** | On RRC Configuration for LTM: Reference, Delta and Validity Check | Nokia, Nokia Shanghai Bell |
| **[R2-2303167](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303167.zip)** | Next Steps for CHO with CPAC in Rel-18 | Nokia, Nokia Shanghai Bell |
| **[R2-2303191](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303191.zip)** | Further analysis on remaining issues for selective activation | Nokia, Nokia Shanghai Bell |
| **[R2-2303220](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303220.zip)** | RRC issues for LTM configuration | Lenovo |
| **[R2-2303221](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303221.zip)** | Consideration on CHO with candidate SCG for CPAC | Lenovo |
| **[R2-2303239](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303239.zip)** | Discussion on issues related to SCG selective activation | Lenovo |
| **[R2-2303277](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303277.zip)** | Discussion on partial MAC reset for LTM | KDDI Corporation |
| **[R2-2303335](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303335.zip)** | SCG failure handling with selective activation | ITRI |
| **[R2-2303344](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303344.zip)** | Discussion on Conditional Handover with Candidate SCGs for CPAC | FGI |
| **[R2-2303345](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303345.zip)** | Discussion on LTM Failure Handling | FGI |
| **[R2-2303347](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303347.zip)** | Remaining issues of RRC configured Layer-2 reset | Xiaomi |
| **[R2-2303348](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303348.zip)** | RACH-less in LTM | Xiaomi |
| **[R2-2303349](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303349.zip)** | Handling of connection failure for LTM | Xiaomi |
| **[R2-2303355](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303355.zip)** | Details of delta configurations in LTM | NEC |
| **[R2-2303356](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303356.zip)** | Further discussion on Cell switch | NEC |
| **[R2-2303357](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303357.zip)** | Further discussion on selective SCG activation | NEC |
| **[R2-2303392](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303392.zip)** | RRC based L2 reset config | Apple |
| **[R2-2303393](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303393.zip)** | RACH-less LTM, LTM MAC CE and TA management | Apple |
| **[R2-2303394](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303394.zip)** | Avoiding keystream re-use with selective activation of cell-groups | Apple |
| **[R2-2303395](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303395.zip)** | LTM cell switch and link failure handling | Apple |
| **[R2-2303408](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303408.zip)** | Execution condition in selective SCG activation | Apple |
| **[R2-2303414](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303414.zip)** | HO execution of CHO with candidate SCGs | Apple |
| **[R2-2303425](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303425.zip)** | Discussion on LTM overall procedure | ZTE Corporation, Sanechips |
| **[R2-2303426](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303426.zip)** | Remaining issues on LTM RRC aspects | ZTE Corporation, Sanechips |
| **[R2-2303427](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303427.zip)** | Consideration on SCG selective activation | ZTE Corporation, Sanechips |
| **[R2-2303428](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303428.zip)** | TP to 37.340 for SCG selective activation and CHO with candidate SCGs | ZTE Corporation, Sanechips |
| **[R2-2303429](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303429.zip)** | Discussion on CHO with candidate SCGs | ZTE Corporation, Sanechips |
| **[R2-2303473](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303473.zip)** | Further discussion on LTM cell switch procedure | Transsion Holdings |
| **[R2-2303474](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303474.zip)** | Discussion on measurement enhancement of L1L2 triggered mobility | Transsion Holdings |
| **[R2-2303475](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303475.zip)** | Discussion on Selective Activation of Cell Groups in NR-DC | Transsion Holdings |
| **[R2-2303516](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303516.zip)** | Discussion on NR-DC with selective activation of cell groups | CMCC |
| **[R2-2303533](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303533.zip)** | Considerations on measurment related issues | CMCC |
| **[R2-2303534](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303534.zip)** | [Draft] LS on measurement related issues for L1L2-based inter-cell mobility | CMCC |
| **[R2-2303535](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303535.zip)** | Considerations on failure handling | CMCC |
| **[R2-2303536](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303536.zip)** | Considerations on Timing Advance management for LTM | CMCC |
| **[R2-2303537](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303537.zip)** | Considerations on cell switch | CMCC |
| **[R2-2303549](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303549.zip)** | LTM procedure including RAN3 LS and miscellaneous issues | Huawei, HiSilicon |
| **[R2-2303550](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303550.zip)** | RACH-less cell switch (inter-DU issues, RAR options from R1 LS) and L1 measurement configuration | Huawei, HiSilicon |
| **[R2-2303551](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303551.zip)** | CHO including target MCG and candidate SCGs for CPC/CPA | Huawei, HiSilicon |
| **[R2-2303566](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303566.zip)** | Discussion on NR-DC with SCG selective activation | Spreadtrum Communications |
| **[R2-2303567](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303567.zip)** | Discussion on CHO with CPAC in NR-DC | Spreadtrum Communications |
| **[R2-2303575](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303575.zip)** | Discussion on cell switch for LTM | Spreadtrum Communications |
| **[R2-2303592](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303592.zip)** | Discussion on RRC Reconfiguration Aspects | Nokia, Nokia Shanghai Bell |
| **[R2-2303593](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303593.zip)** | On the cell switch in LTM | Nokia, Nokia Shanghai Bell |
| **[R2-2303606](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303606.zip)** | Discussion on selective SCG activation | MediaTek Inc. |
| **[R2-2303607](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303607.zip)** | Discussion on CHO with candidate SCG | MediaTek Inc. |
| **[R2-2303625](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303625.zip)** | Subsequent change of SCGs and selective activation | Interdigital Inc. |
| **[R2-2303626](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303626.zip)** | CHO with associated SCG | Interdigital Inc. |
| **[R2-2303649](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303649.zip)** | Details of Early TA work | Lenovo |
| **[R2-2303650](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303650.zip)** | LTM stage-2 design models | Lenovo |
| **[R2-2303651](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303651.zip)** | Securing LTM | Lenovo |
| **[R2-2303680](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303680.zip)** | NR-DC with selective activation | Ericsson |
| **[R2-2303681](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303681.zip)** | CHO with associated CPC or CPA | Ericsson |
| **[R2-2303709](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303709.zip)** | LTM Stage 2 open issues | Interdigital, Inc. |
| **[R2-2303710](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303710.zip)** | LTM Measurement considerations | Interdigital, Inc. |
| **[R2-2303711](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303711.zip)** | RRC Open issues for LTM | Interdigital, Inc. |
| **[R2-2303712](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303712.zip)** | LTM MAC CE content and functionality | Interdigital, Inc. |
| **[R2-2303751](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303751.zip)** | Remaining issues of LTM execution procedure | LG Electronics |
| **[R2-2303752](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303752.zip)** | Discussion on LTM timer operation | LG Electronics |
| **[R2-2303754](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303754.zip)** | Data Loss at LTM | MediaTek Inc. |
| **[R2-2303759](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303759.zip)** | Partial MAC Reset during Intra-DU LTM | MediaTek Inc. |
| **[R2-2303794](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303794.zip)** | Discussion CHO including target MCG and candidate SCGs for CPAC | CMCC |
| **[R2-2303843](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303843.zip)** | Discussion on reference configuration | LG Electronics France |
| **[R2-2303847](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303847.zip)** | Discussion on candidate and reference configuration for LTM | Xiaomi |
| **[R2-2303848](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303848.zip)** | Discussion on NR-DC with selective activation of the cell groups | Xiaomi |
| **[R2-2303849](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303849.zip)** | Discussion on CHO with CPAC | Xiaomi |
| **[R2-2303869](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303869.zip)** | Discussion on potential enhancement for LTM | Samsung |
| **[R2-2303870](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303870.zip)** | Considerations on CHO with CPA/CPC | Samsung |
| **[R2-2303890](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303890.zip)** | Discussion on NR-DC with selective activation of the cell groups. | DENSO CORPORATION |
| **[R2-2303929](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303929.zip)** | Discussion on L1L2-triggered mobility | ASUSTeK |
| **[R2-2303940](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303940.zip)** | Discussion on TA of candidate cells for LTM | LG Electronics Inc. |
| **[R2-2304024](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304024.zip)** | Additional Aspects for Selective Cell Group Activation | LG Electronics |
| **[R2-2304025](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304025.zip)** | Simultaneous Evaluation for CHO with CPAC | LG Electronics |
| **[R2-2304071](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304071.zip)** | Remaining issues for RRC Configurations of LTM | Sharp |
| **[R2-2304072](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304072.zip)** | Cell Switch for LTM | Sharp |
| **[R2-2304073](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304073.zip)** | Discussion of SCG selective activation | Sharp |
| **[R2-2304101](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304101.zip)** | RRC running CR for LTM | Ericsson |
| **[R2-2304102](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304102.zip)** | Discussion on RAN3 LS on approaches during execution for inter-DU LTM | Ericsson |
| **[R2-2304103](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304103.zip)** | L1 measurements aspects for LTM | Ericsson |
| **[R2-2304104](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304104.zip)** | TA handling aspects for LTM | Ericsson |
| **[R2-2304105](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304105.zip)** | Discussion on RRC aspects for LTM | Ericsson |
| **[R2-2304106](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304106.zip)** | RRC-MAC cross-layer aspects during LTM cell switch execution | Ericsson |
| **[R2-2304130](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304130.zip)** | Further Considerations On Cell Switch Command and MAC Paritial Reset | ZTE Corporation, Sanechips |
| **[R2-2304156](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304156.zip)** | Discussion on RAN1 related issue of LTM | NTT DOCOMO INC. |
| **[R2-2304158](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304158.zip)** | Discussion on selective activation | NTT DOCOMO INC. |
| **[R2-2304185](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304185.zip)** | Discussion on RAN1 related issue of LTM | NTT DOCOMO INC. |
| **[R2-2304186](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304186.zip)** | Discussion on selective activation | NTT DOCOMO INC. |
| **[R2-2304214](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304214.zip)** | Summary of [AT121bis-e][018][eMob] Procedure Consolidation (Huawei) | Huawei, HiSilicon |
| **[R2-2304522](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304522.zip)** | Summary of [AT121bis-e][016][eMob] Reply LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM (Fujitsu) | Fujitsu |
| **[R2-2304523](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304523.zip)** | [Draft] Reply LS on PDCCH ordered RACH for LTM | Fujitsu, CATT |
| **[R2-2304537](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304537.zip)** | Summary of [AT121bis-e][017][eMob] RRC | Ericsson |
| **[R2-2304548](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304548.zip)** | [AT121bis-e][019][eMob] L1 Measurements (Qualcomm) | Qualcomm Incorporated |
| **[R2-2304553](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304553.zip)** | Reply LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | RAN2 |

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| **[R2-2304620](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304620.zip)** | LS on beam indication of target cell(s) and time gap between a PDCCH order and the corresponding PRACH transmission for LTM (R1-2304276; contact: Fujitsu, MediaTek, CATT) | RAN1 |
| **[R2-2304629](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304629.zip)** | Reply LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM (R3-232139; contact: Fujitsu, CATT) | RAN3 |
| **[R2-2304673](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304673.zip)** | L1 Measurement to support LTM | NEC |
| **[R2-2304674](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304674.zip)** | Failure handling for L1/L2 triggered mobility | NEC |
| **[R2-2304675](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304675.zip)** | UE identification during RACH less LTM cell switch | NEC |
| **[R2-2304687](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304687.zip)** | Discussion on RACH-less LTM | CATT |
| **[R2-2304688](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304688.zip)** | Discussions on Cell Switch | CATT |
| **[R2-2304689](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304689.zip)** | Discussion on Selective Activation of Cell Groups in NR-DC | CATT |
| **[R2-2304690](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304690.zip)** | Discussion on CHO including target MCG and candidate SCGs | CATT |
| **[R2-2304719](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304719.zip)** | RAN2 Aspects of Early Timing Advance Management for LTM | Samsung Electronics Co., Ltd |
| **[R2-2304720](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304720.zip)** | Remaining issues for Cell Switching | Samsung Electronics Co., Ltd |
| **[R2-2304784](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304784.zip)** | 37.340 running CR for introduction of NR further mobility enhancements | ZTE Corporation, Sanechips |
| **[R2-2304785](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304785.zip)** | Discussion on RRC aspects for LTM | ZTE Corporation, Sanechips |
| **[R2-2304786](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304786.zip)** | Consideration on SCG selective activation | ZTE Corporation, Sanechips |
| **[R2-2304787](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304787.zip)** | Discussion on CHO with candidate SCGs | ZTE Corporation, Sanechips |
| **[R2-2304881](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304881.zip)** | On unified sequential LTM with flexible cell switch triggering and RACH-less | Futurewei |
| **[R2-2304882](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304882.zip)** | Configuration for measurement and RACH-less in sequential LTM | Futurewei |
| **[R2-2304883](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304883.zip)** | Discussion on issues at lower layer mobility with RACH-less | Futurewei |
| **[R2-2304889](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304889.zip)** | Open Issues for LTM Procedure | MediaTek Inc. |
| **[R2-2304890](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304890.zip)** | Open Issues for LTM RRC | MediaTek Inc. |
| **[R2-2304891](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304891.zip)** | Triggering MAC CE for LTM | MediaTek Inc. |
| **[R2-2304909](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304909.zip)** | Remaining issues on LTM procedures | vivo |
| **[R2-2304910](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304910.zip)** | Remaining issues on early TA acquisition | vivo |
| **[R2-2304911](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304911.zip)** | RRC configuration for LTM | vivo |
| **[R2-2304912](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304912.zip)** | Remaining issues on partial MAC reset | vivo, MediaTek Inc., Samsung |
| **[R2-2304913](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304913.zip)** | Remaining issues for NR-DC with selective activation cell of groups | vivo |
| **[R2-2304914](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304914.zip)** | Discussion on CHO with CPAC | vivo |
| **[R2-2304928](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304928.zip)** | 38\_331\_Running CR for CHO including target MCG and candidate SCGs | CATT |
| **[R2-2304944](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304944.zip)** | Delayed Resource Reservation for inter gNB-DU L1/L2 Triggered Mobility | Rakuten Symphony |
| **[R2-2304951](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304951.zip)** | General aspects for L1/L2 triggered mobility procedure | Fujitsu |
| **[R2-2304952](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304952.zip)** | RRC aspects of L1/L2 triggered mobility | Fujitsu |
| **[R2-2304953](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304953.zip)** | Discussions on LTM cell switch execution | Fujitsu |
| **[R2-2304963](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304963.zip)** | TA Acquisition before LTM Serving cell change | Rakuten Symphony |
| **[R2-2304964](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304964.zip)** | Prioritizing RACH-less LTM HO | Rakuten Symphony |
| **[R2-2304966](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2304966.zip)** | Security impacts of intra gNB, inter gNB-CU-UP relocation | Rakuten Symphony |
| **[R2-2305010](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305010.zip)** | Considerations on CHO with CPA/CPC | Samsung |
| **[R2-2305024](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305024.zip)** | Remaining issues on L1 measurement configuration for LTM | Panasonic |
| **[R2-2305100](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305100.zip)** | RRC based L2 reset config | Apple |
| **[R2-2305101](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305101.zip)** | LTM cell switch link failure handling | Apple |
| **[R2-2305102](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305102.zip)** | Using SCG deactived state for CHO with SN addition | Apple |
| **[R2-2305103](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305103.zip)** | On Validation of LTM candidate config | Apple |
| **[R2-2305104](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305104.zip)** | RACH-less LTM and TA management | Apple |
| **[R2-2305105](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305105.zip)** | Execution condition in selective SCG activation | Apple |
| **[R2-2305116](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305116.zip)** | Discussion on LTM procedures | Qualcomm Inc. |
| **[R2-2305117](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305117.zip)** | RRC Aspects of LTM | Qualcomm Inc. |
| **[R2-2305118](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305118.zip)** | Race conditions in LTM | Qualcomm Inc. |
| **[R2-2305119](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305119.zip)** | Dynamic switch in LTM | Qualcomm Inc. |
| **[R2-2305164](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305164.zip)** | LTM Stage 2 open issues | Interdigital, Inc. |
| **[R2-2305165](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305165.zip)** | LTM Measurement considerations | Interdigital, Inc. |
| **[R2-2305166](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305166.zip)** | RRC Open issues for LTM | Interdigital, Inc. |
| **[R2-2305167](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305167.zip)** | LTM MAC CE content and functionality | Interdigital, Inc. |
| **[R2-2305213](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305213.zip)** | CHO with multiple candidate SCGs | Qualcomm Incorporated |
| **[R2-2305214](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305214.zip)** | SCG Selective Activation in NR-DC | Qualcomm Incorporated |
| **[R2-2305239](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305239.zip)** | Discussion on evaluation and execution of CHO with CPAC in NR-DC | China Telecom |
| **[R2-2305271](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305271.zip)** | Remaining issues of LTM general | LG Electronics |
| **[R2-2305272](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305272.zip)** | Discussion on L1 measurement configuration | LG Electronics |
| **[R2-2305292](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305292.zip)** | Discussion on early TA acquisition and maintenance for LTM | OPPO |
| **[R2-2305293](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305293.zip)** | Open issues for RACH-less LTM | OPPO |
| **[R2-2305294](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305294.zip)** | Discussion on reference configuration and candidate configuration for LTM | OPPO |
| **[R2-2305295](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305295.zip)** | Discussion on MAC CE content and partial MAC reset for LTM | OPPO |
| **[R2-2305296](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305296.zip)** | RRC running CR for selective activation of SCGs for NR-DC | OPPO |
| **[R2-2305297](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305297.zip)** | Open issues for selective activation of SCGs for NR-DC | OPPO |
| **[R2-2305298](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305298.zip)** | Discussion on configuration, evaluation and execution for CHO with CPA/CPC | OPPO |
| **[R2-2305303](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305303.zip)** | 38.300 running CR for introduction of NR further mobility enhancements | MediaTek Inc., vivo |
| **[R2-2305305](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305305.zip)** | Data Loss at LTM Cell Switch | MediaTek Inc. |
| **[R2-2305316](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305316.zip)** | On LTM performance, candidate SCell and failure handling aspect | CATT |
| **[R2-2305317](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305317.zip)** | Discussion on RRC aspects for LTM | CATT |
| **[R2-2305365](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305365.zip)** | Discussion on LTM supervisor timer | FGI |
| **[R2-2305366](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305366.zip)** | Discussion on NR-DC with Selective Activation of Cell Groups | FGI |
| **[R2-2305368](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305368.zip)** | Discussion on early TA acquisition for LTM | Transsion Holdings |
| **[R2-2305369](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305369.zip)** | Discussion on measurement configuration for LTM | Transsion Holdings |
| **[R2-2305370](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305370.zip)** | Discussion on remaining issue for LTM | Transsion Holdings |
| **[R2-2305371](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305371.zip)** | Discussion on Selective Activation of Cell Groups in NR-DC | Transsion Holdings |
| **[R2-2305385](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305385.zip)** | NR-DC with selective activation | Ericsson |
| **[R2-2305386](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305386.zip)** | CHO with associated CPC or CPA | Ericsson |
| **[R2-2305459](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305459.zip)** | Discussion on early TA acquisition for LTM | ITRI |
| **[R2-2305537](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305537.zip)** | Discussion on L1 measurement for LTM | ZTE Corporation, Sanechips |
| **[R2-2305539](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305539.zip)** | 38.321 running CR for introduction of NR further mobility enhancements | Huawei, HiSilicon |
| **[R2-2305540](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305540.zip)** | RACH-less LTM and LTM procedure | Huawei, HiSilicon |
| **[R2-2305541](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305541.zip)** | LTM command MAC CE content and RAN3 LS reply | Huawei, HiSilicon, CATT, ZTE Corporation, Sanechips, vivo, China Unicom |
| **[R2-2305542](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305542.zip)** | CHO including target MCG and candidate SCGs for CPC/CPA | Huawei, HiSilicon |
| **[R2-2305555](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305555.zip)** | Discussion on NR-DC with SCG selective activation | Spreadtrum Communications |
| **[R2-2305556](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305556.zip)** | Discussion on CHO with CPAC in NR-DC | Spreadtrum Communications |
| **[R2-2305559](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305559.zip)** | Discussion on the remaining issues for LTM | Spreadtrum Communications |
| **[R2-2305574](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305574.zip)** | Remaining issues of RRC configured Layer-2 reset | Xiaomi |
| **[R2-2305575](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305575.zip)** | Discussion on RACH-less LTM | Xiaomi |
| **[R2-2305576](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305576.zip)** | Contents of cell switch MAC CE | Xiaomi |
| **[R2-2305594](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305594.zip)** | Discussion on RRC aspects for LTM | Samsung R&D Institute India |
| **[R2-2305608](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305608.zip)** | Discussion on NR-DC with selective activation of cell groups | CMCC |
| **[R2-2305630](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305630.zip)** | Discussion CHO including target MCG and candidate SCGs for CPAC | CMCC |
| **[R2-2305638](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305638.zip)** | Considerations on failure handling | CMCC |
| **[R2-2305639](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305639.zip)** | Discussions on LTM open issues | CMCC |
| **[R2-2305640](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305640.zip)** | Remaining issues related to measurements | CMCC |
| **[R2-2305641](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305641.zip)** | Further considerations on cell switch | CMCC |
| **[R2-2305643](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305643.zip)** | Discussion on partial MAC reset for LTM | KDDI Corporation |
| **[R2-2305648](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305648.zip)** | Discussion on RAN3 related issues | NEC |
| **[R2-2305649](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305649.zip)** | Further discussion on cell switch | NEC |
| **[R2-2305650](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305650.zip)** | Configurations for selective SCG activation | NEC |
| **[R2-2305679](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305679.zip)** | Discussion on issues related to SCG selective activation | Lenovo |
| **[R2-2305695](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305695.zip)** | Compliance check for LTM configuration | Lenovo |
| **[R2-2305696](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305696.zip)** | CHO with candidate SCG for CPAC | Lenovo |
| **[R2-2305812](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305812.zip)** | Subsequent change of SCGs and selective activation | Interdigital Inc. |
| **[R2-2305813](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305813.zip)** | CHO with associated SCG | Interdigital Inc. |
| **[R2-2305861](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305861.zip)** | On remaining issues of selective activation | Nokia, Nokia Shanghai Bell |
| **[R2-2305879](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305879.zip)** | Further details on TA Acquisition and Maintenance in LTM | Nokia, Nokia Shanghai Bell |
| **[R2-2305880](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305880.zip)** | On Reference, Delta and Validity Check for LTM Configuration | Nokia, Nokia Shanghai Bell |
| **[R2-2305881](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305881.zip)** | Further details on CHO with CPAC in Rel-18 | Nokia, Nokia Shanghai Bell |
| **[R2-2305908](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305908.zip)** | Discussion on RRC Reconfiguration Aspects | Nokia, Nokia Shanghai Bell |
| **[R2-2305909](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305909.zip)** | On the cell switch in LTM | Nokia, Nokia Shanghai Bell |
| **[R2-2305918](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305918.zip)** | RRC aspects for LTM | Huawei, HiSilicon |
| **[R2-2305919](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305919.zip)** | L2 behaviours and reset indication | Huawei, HiSilicon |
| **[R2-2305920](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305920.zip)** | NR-DC with selective SCG activatiion | Huawei, HiSilicon |
| **[R2-2305943](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305943.zip)** | Cell Switch details | Lenovo |
| **[R2-2305944](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2305944.zip)** | Initial Early-TA acquisition | Lenovo |
| **[R2-2306010](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306010.zip)** | Discussion on RRC aspects for LTM | Ericsson |
| **[R2-2306011](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306011.zip)** | Discussion on TA handling aspects for LTM | Ericsson |
| **[R2-2306012](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306012.zip)** | L1 measurements aspects for LTM | Ericsson |
| **[R2-2306013](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306013.zip)** | LTM cell switch command and UE actions | Ericsson |
| **[R2-2306014](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306014.zip)** | RRC open issues list for LTM | Ericsson |
| **[R2-2306015](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306015.zip)** | RRC running CR for LTM | Ericsson |
| **[R2-2306016](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306016.zip)** | Signalling approaches for LTM cell switch execution | Ericsson |
| **[R2-2306051](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306051.zip)** | Failure detection and fast recovery | Fujitsu |
| **[R2-2306105](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306105.zip)** | Discussion on NR-DC with selective activation cell of groups | KDDI Corporation |
| **[R2-2306120](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306120.zip)** | Discussion on fallback RACH for L1L2-triggered mobility | ASUSTeK |
| **[R2-2306132](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306132.zip)** | Discussion on RRC aspects for LTM | Xiaomi |
| **[R2-2306133](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306133.zip)** | Discussion on NR-DC with SCG selective activation | Xiaomi |
| **[R2-2306134](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306134.zip)** | Discussion on CHO with CPAC | Xiaomi |
| **[R2-2306226](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306226.zip)** | Beam handling and security issue on cell switch for LTM | Samsung |
| **[R2-2306227](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306227.zip)** | Considerations on Subsequent CPAC after SCG Change | Samsung |
| **[R2-2306274](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306274.zip)** | Further discussion on execution condition related issue | NTT DOCOMO INC. |
| **[R2-2306279](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306279.zip)** | Candidate configuration handling for LTM | LG Electronics France |
| **[R2-2306281](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306281.zip)** | Discussion on RACH related issue | NTT DOCOMO INC. |
| **[R2-2306297](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306297.zip)** | Discussion on CHO with candidate SCG | MediaTek Inc. |
| **[R2-2306309](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306309.zip)** | Discussion on selective SCG activation | MediaTek Inc. |
| **[R2-2306316](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306316.zip)** | Discussion on early TA acquisition and partial MAC reset | LG Electronics Inc. |
| **[R2-2306319](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306319.zip)** | Remaining issues for RRC Configurations of LTM | Sharp |
| **[R2-2306371](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306371.zip)** | Cell Switch for LTM | Sharp |
| **[R2-2306372](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306372.zip)** | Remaining issues for SCG selective activation | Sharp |
| **[R2-2306376](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306376.zip)** | Discussion on NR-DC with selective activation of the cell groups. | DENSO CORPORATION |
| **[R2-2306405](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306405.zip)** | Securing LTM | Lenovo |
| **[R2-2306418](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306418.zip)** | Further Considerations On MAC Partial Reset | ZTE Corporation, Sanechips |
| **[R2-2306419](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306419.zip)** | Further Considerations on Early RACH for LTM | ZTE Corporation, Sanechips |
| **[R2-2306423](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306423.zip)** | Discussion on LTM reference configuration | Google Inc. |
| **[R2-2306428](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306428.zip)** | Discussion on TA timer for LTM | KDDI Corporation |
| **[R2-2306429](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306429.zip)** | Selective CG Activation in NR | LG Electronics |
| **[R2-2306430](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306430.zip)** | Simultaneous Evaluation for CHO and CPAC | LG Electronics |
| **[R2-2306479](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306479.zip)** | Discussion on LTM command MAC CE content and RAN3 LS reply | China Unicom |
| **[R2-2306480](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_122/Docs/R2-2306480.zip)** | Discussion on RACH-less LTM and early acquisition of TA | China Unicom |

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| **[R3-231107](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231107.zip)** | LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | RAN1, Fujitsu, CATT |
| **[R3-231136](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231136.zip)** | (BLCR) Additions for L1/L2 triggered mobility | Ericsson, Huawei, Nokia, Nokia Shanghai Bell, Intel Corporation |
| **[R3-231137](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231137.zip)** | (BLCR to 38.401) for L1L2Mob | Huawei, Ericsson, Nokia, Nokia Shanghai Bell |
| **[R3-231182](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231182.zip)** | TP (BL CR TS 38.401) L1/2 Triggered Mobility (LTM) Procedures | Nokia, Nokia Shanghai Bell |
| **[R3-231183](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231183.zip)** | Discussion on TA Acquisition for LTM | Nokia, Nokia Shanghai Bell |
| **[R3-231192](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231192.zip)** | [TP to TS38423, CHO with NRDC] Avoiding unnecessary CHO replace & data forwarding in case of CHO with multiple SCGs | Nokia, Nokia Shanghai Bell |
| **[R3-231193](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231193.zip)** | [TP to TS 38.423 for Selective Activation] Data forwarding and RAN signalling for Selective Activation | Nokia, Nokia Shanghai Bell |
| **[R3-231235](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231235.zip)** | (TP for CHO with NR-DC to TS 37.340): Early data forwarding optimization for CHO with SCG procedure | ZTE, Intel Corporation, Nokia, Nokia Shanghai Bell,Ericsson |
| **[R3-231236](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231236.zip)** | (TP for CHO with NR-DC to TS 38.423): Early data forwarding optimization for CHO with SCG procedure | ZTE |
| **[R3-231239](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231239.zip)** | gNB-DU initiated target cell re-configuration for L1/L2 triggered mobility | Rakuten Symphony |
| **[R3-231305](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231305.zip)** | Discussion on avoiding CHO modification signalling in CHO with SCG(s) due to source RRC reconfiguration (including TP for TS 38.423) | Intel Corporation |
| **[R3-231306](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231306.zip)** | Discussion on the new problem of CHO with SCGs (including TP for TS 38.423) | Intel Corporation |
| **[R3-231315](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231315.zip)** | Signalling Support for LTM | Qualcomm Incorporated |
| **[R3-231316](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231316.zip)** | SCG Selective Activation in NR-DC | Qualcomm Incorporated |
| **[R3-231317](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231317.zip)** | CHO with multiple candidate SCGs | Qualcomm Incorporated |
| **[R3-231322](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231322.zip)** | Discussion on CHO with SCG and multiple SCGs | CATT |
| **[R3-231323](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231323.zip)** | Discussion on NR-DC with selective activation of the cell groups | CATT |
| **[R3-231326](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231326.zip)** | [Draft] Reply LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | Fujitsu, CATT |
| **[R3-231327](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231327.zip)** | Discussion on replying to the RAN1 LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | Fujitsu, CATT |
| **[R3-231381](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231381.zip)** | co-existence between LTM and L3 mobility | NEC |
| **[R3-231382](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231382.zip)** | (TP to TS 38.473 on LTM) co-existence between LTM and L3 mobility | NEC |
| **[R3-231383](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231383.zip)** | Selective Activation of the cell groups | NEC |
| **[R3-231384](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231384.zip)** | (TP to TS 38.423 BL CR) Selective SCG Activation | NEC |
| **[R3-231388](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231388.zip)** | (TP for L1L2Mob BLCR for TS 38.401) Discussion on reference configuration in LTM | Google Inc. |
| **[R3-231399](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231399.zip)** | (TPs to TS 37.340, 38.423 BL CRs) Consideration on CHO Related aspects | Huawei |
| **[R3-231400](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231400.zip)** | (TP to TS 38.423 BL CR) Consideration on selective activation of SCGs | Huawei |
| **[R3-231447](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231447.zip)** | Discussion on L1L2 based inter-cell mobility | Lenovo |
| **[R3-231448](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231448.zip)** | (TP to TS 38.401 & TS 38.470) Support of L1L2 based inter-cell mobility | Lenovo |
| **[R3-231449](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231449.zip)** | (TP to TS 37.340 & TS 38.423) CHO in NR-DC | Lenovo |
| **[R3-231450](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231450.zip)** | (TP for TS 38.473) On SCG selective activation | Lenovo |
| **[R3-231458](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231458.zip)** | Collision between L1/L2-triggered mobility and L3 mobility | vivo |
| **[R3-231459](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231459.zip)** | Discussion on L1/L2-triggered Mobility | vivo |
| **[R3-231460](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231460.zip)** | Signaling Support for Selective Activation | vivo |
| **[R3-231510](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231510.zip)** | Discussion on remaining issues for LTM procedure | China Telecommunication |
| **[R3-231511](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231511.zip)** | (TP to TS 38.473 BL CR) On support of LTM procedure | China Telecommunication |
| **[R3-231512](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231512.zip)** | Discussion on selective activation of cell groups | China Telecommunication |
| **[R3-231513](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231513.zip)** | (TP to TS 38.423 BL CR) On support of selective activation | China Telecommunication |
| **[R3-231573](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231573.zip)** | (TP for LTM BL CR to TS 38.401) Solutions for LTM | Ericsson |
| **[R3-231574](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231574.zip)** | (TP for LTM BL CR to TS 38.473) F1AP impacts for LTM | Ericsson |
| **[R3-231575](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231575.zip)** | CHO with candidate SCG(s) | Ericsson |
| **[R3-231576](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231576.zip)** | NR-DC with Selective Activation | Ericsson |
| **[R3-231577](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231577.zip)** | Avoid unnecessary signaling due to SCG reconfigurations | Ericsson, ZTE, Lenovo |
| **[R3-231652](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231652.zip)** | Discussion on LTM related issues | LG Electronics Inc. |
| **[R3-231653](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231653.zip)** | (TP for NR\_Mob\_enh2 BL CR for TS 38.401) Discussion on LTM related issues | LG Electronics Inc. |
| **[R3-231654](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231654.zip)** | (TP for NR\_Mob\_enh2 BL CR for TS 38.473) Discussion on LTM related issues | LG Electronics Inc. |
| **[R3-231678](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231678.zip)** | Discussion on left issues for L1/L2 mobility | CATT |
| **[R3-231679](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231679.zip)** | (TP for L1L2 Mob BLCR for TS 38.401) Support of L1L2 based inter-cell mobility | CATT |
| **[R3-231721](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231721.zip)** | Considerations on selective activation of the cell groups | Samsung |
| **[R3-231722](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231722.zip)** | Considerations on CHO in NR-DC | Samsung |
| **[R3-231745](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231745.zip)** | (TP for L1L2Mob BLCR for TS 38.401): L1/L2 Mobility procedure on F1 | Huawei |
| **[R3-231746](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231746.zip)** | (TP for L1L2Mob BLCR for TS 38.401): L1/L2 Mobility procedure on E1 | Huawei |
| **[R3-231747](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231747.zip)** | (TP to Mob\_enh2 BL CR TS38.401) Discussion on L1/L2 based Inter-cell Mobility | Samsung Electronics France SA |
| **[R3-231751](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231751.zip)** | Considerations on parallel vs single (including TPs for TS 38.473) | Intel Corporation |
| **[R3-231807](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231807.zip)** | Discussion on L1L2 based Inter-Cell Mobility | CMCC |
| **[R3-231808](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231808.zip)** | (TP to TS 38.401) L1L2 based Inter-Cell Mobility | CMCC |
| **[R3-231813](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231813.zip)** | Further discussion on LTM | NTT DOCOMO INC. |
| **[R3-231816](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231816.zip)** | Discussion on selective activation | NTT DOCOMO INC. |
| **[R3-231848](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231848.zip)** | (TP for LTM BL CR to TS 38.473) Discussion on L1/L2 triggered mobility | ZTE |
| **[R3-231849](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231849.zip)** | TP for LTM BL CR to TS 38.401 | ZTE |
| **[R3-231850](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231850.zip)** | (TP to TS 38.423 and 38.473) Support of SCG selective activation | ZTE |
| **[R3-231883](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231883.zip)** | CB: # MobilityEnh1\_RAN1LS- Summary of email discussion | CATT - moderator |
| **[R3-231884](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231884.zip)** | CB: # MobilityEnh2\_L1L2Mobility- Summary of email discussion | Huawei - moderator |
| **[R3-231885](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231885.zip)** | CB: # MobilityEnh3\_CHO- Summary of email discussion | Ericsson - moderator |
| **[R3-231886](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231886.zip)** | CB: # MobilityEnh4\_Others- Summary of email discussion | ZTE - moderator |
| **[R3-231937](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231937.zip)** | CB: # MobilityEnh1\_RAN1LS- Summary of email discussion | CATT - moderator |
| **[R3-231938](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231938.zip)** | CB: # MobilityEnh2\_L1L2Mobility- Summary of email discussion | Huawei - moderator |
| **[R3-231941](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231941.zip)** | CB: # MobilityEnh3\_CHO- Summary of email discussion | Ericsson - moderator |
| **[R3-231944](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-231944.zip)** | CB: # MobilityEnh4\_Others- Summary of email discussion | ZTE - moderator |
| **[R3-232063](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-232063.zip)** | (TP to TS 38.423) Support of SCG selective activation | ZTE, Huawei |
| **[R3-232089](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-232089.zip)** | [Draft] Reply LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | Fujitsu, CATT |
| **[R3-232090](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-232090.zip)** | (TP for L1L2Mob BLCR for TS 38.401): L1/L2 Mobility procedure on F1 | Huawei |
| **[R3-232094](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-232094.zip)** | (TP for L1L2Mob BLCR for TS 38.401): L1/L2 Mobility procedure on E1 | Huawei |
| **[R3-232113](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-232113.zip)** | (TP for CHO with NR-DC to TS 37.340): Early data forwarding optimization for CHO with SCG procedure | ZTE, Intel Corporation, Nokia, Nokia Shanghai Bell, Ericsson, CATT, Samsung, Huawei |
| **[R3-232115](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-232115.zip)** | (TP for LTM BL CR to TS 38.473) F1AP impacts for LTM | Ericsson, Huawei |
| **[R3-232139](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-232139.zip)** | [Draft] Reply LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | Fujitsu, CATT |
| **[R3-232145](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-232145.zip)** | (TP for LTM BL CR to TS 38.473) F1AP impacts for LTM | Ericsson, Huawei, Lenovo, Nokia, Nokia Shanghai Bell, ZTE, Samsung |
| **[R3-232171](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-232171.zip)** | (TP for LTM BL CR to TS 38.473) F1AP impacts for LTM | Ericsson, Huawei, Lenovo, Nokia, Nokia Shanghai Bell, ZTE, Samsung |
| **[R3-232172](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/Docs/R3-232172.zip)** | (TP for CHO with NR-DC to TS 37.340): Early data forwarding optimization for CHO with SCG procedure | ZTE, Intel Corporation, Nokia, Nokia Shanghai Bell, Ericsson, CATT, Samsung, Huawei |

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| **[R3-232531](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232531.zip)** | (BLCR to 38.401) for L1L2Mob | Huawei, Ericsson, Nokia, Nokia Shanghai Bell |
| **[R3-232532](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232532.zip)** | (BLCR to 38.473) Additions for L1/L2 triggered mobility | Ericsson, Huawei, Nokia, Nokia Shanghai Bell, Intel Corporation |
| **[R3-232558](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232558.zip)** | (BLCR to 37.340) Introduction of CHO with SCG(s) | CATT |
| **[R3-232559](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232559.zip)** | (SCG Selective Activation BL CR to TS 38.423) Introduction of SCG Selective Activation | Huawei |
| **[R3-232569](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232569.zip)** | LS on beam indication of target cell(s) and time gap between a PDCCH order and the corresponding PRACH transmission for LTM | RAN1(CATT) |
| **[R3-232575](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232575.zip)** | Reply LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | RAN2(Fujitsu, CATT) |
| **[R3-232671](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232671.zip)** | TP (BL CR TS 38.401) L1/2 Triggered Mobility (LTM) Procedures | Nokia, Nokia Shanghai Bell |
| **[R3-232673](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232673.zip)** | Discussion on TA Acquisition for LTM  | Nokia, Nokia Shanghai Bell |
| **[R3-232685](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232685.zip)** | (TP for CHO with NR-DC to TS 38.423): Early data forwarding optimization for CHO with SCG procedure | ZTE |
| **[R3-232691](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232691.zip)** | [TPs to TS38423 and TS37340, CHO with NRDC] Continuation of the discussions on enhancements for CHO with MR-DC | Nokia, Nokia Shanghai Bell |
| **[R3-232692](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232692.zip)** | [TP to TS 38.423 for Selective Activation] RAN signalling problems for Selective Activation | Nokia, Nokia Shanghai Bell |
| **[R3-232726](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232726.zip)** | Signaling for LTM candidate configuration | Fujitsu |
| **[R3-232730](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232730.zip)** | Rel-18 LTM discussion on solutions | NEC |
| **[R3-232731](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232731.zip)** | (TP to TS 38.473 on LTM) co-existence between LTM and L3 mobility | NEC |
| **[R3-232732](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232732.zip)** | Discussion on Selective Activation of the cell of groups | NEC |
| **[R3-232733](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232733.zip)** | (TP to TS38.423 BL CR) Selective Activation of the cell of groups | NEC |
| **[R3-232744](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232744.zip)** | gNB-DU initiated target cell re-configuration for LTM | Rakuten Symphony |
| **[R3-232751](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232751.zip)** | (TP to Mob\_enh2 BL CR TS38.401) Discussion on L1/L2 based Inter-cell Mobility | Samsung Electronics France SA |
| **[R3-232759](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232759.zip)** | (TP for LTM BL CR to TS 38.401) Solutions for LTM | Ericsson |
| **[R3-232760](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232760.zip)** | (TP for LTM BL CR to TS 38.473) F1AP impacts for LTM | Ericsson |
| **[R3-232761](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232761.zip)** | CHO with candidate SCG(s) | Ericsson |
| **[R3-232762](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232762.zip)** | (TP to TS 38.423 BL CR) NR-DC with Selective Activation | Ericsson |
| **[R3-232763](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232763.zip)** | Avoid unnecessary signaling due to SCG reconfigurations | Ericsson, ZTE, Lenovo |
| **[R3-232771](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232771.zip)** | CHO with multiple candidate SCGs | Qualcomm Incorporated |
| **[R3-232772](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232772.zip)** | Signalling Support for LTM | Qualcomm Incorporated |
| **[R3-232773](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232773.zip)** | SCG Selective Activation in NR-DC | Qualcomm Incorporated |
| **[R3-232778](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232778.zip)** | Discussion on CHO with SCG and multiple SCGs | CATT |
| **[R3-232779](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232779.zip)** | Discussion on NR-DC with selective activation of the cell groups | CATT |
| **[R3-232824](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232824.zip)** | (TP for L1L2Mob BLCR for TS 38.401): F1 signalling impact on the incoming LSs for LTM | Huawei |
| **[R3-232825](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232825.zip)** | (TP for L1L2Mob BLCR for TS 38.401 and TS 38.473): Continuation on LTM procedure design | Huawei |
| **[R3-232829](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232829.zip)** | Intra gNB CU-UP relocation during LTM | Rakuten Symphony |
| **[R3-232859](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232859.zip)** | Discussion on general issues for LTM | CATT |
| **[R3-232860](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232860.zip)** | Discussion about RAN1 LS about Beam indication of target cell(s) | CATT, Fujitsu |
| **[R3-232861](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232861.zip)** | [Draft] Reply LS on beam indication of target cell(s) for LTM | CATT, Fujitsu |
| **[R3-232869](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232869.zip)** | (TPs to TS 37.340 and 38.423 BL CRs) avoid multiple data forwarding paths | Huawei, Samsung, Lenovo, Qualcomm Incorporated |
| **[R3-232870](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232870.zip)** | (TPs to TS 37.340, 38.423 BL CRs) other CHO related aspects | Huawei |
| **[R3-232871](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-232871.zip)** | (TPs to TS 38.423 38.473 BL CRs) Consideration on selective activation of SCGs | Huawei |
| **[R3-233011](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233011.zip)** | Discussion on SCG selective activation | China Telecommunication |
| **[R3-233012](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233012.zip)** | (TP to TS 38.423 BL CR) On support of selective activation | China Telecommunication |
| **[R3-233044](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233044.zip)** | (TP for TS 38.473 BL CR) On SCG selective activation | Lenovo |
| **[R3-233046](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233046.zip)** | Discussion on L1L2 based inter-cell mobility | Lenovo |
| **[R3-233047](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233047.zip)** | (TP to TS 38.401 & TS 38.470 BL CR) Support of L1L2 based inter-cell mobility | Lenovo |
| **[R3-233048](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233048.zip)** | Discussion on CHO in NR-DC | Lenovo |
| **[R3-233141](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233141.zip)** | (BLCR to 38.473) Additions for L1/L2 triggered mobility | Ericsson, Huawei, Nokia, Nokia Shanghai Bell, Intel Corporation |
| **[R3-233153](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233153.zip)** | Discussion on signaling for candidate cells configuration | LG Electronics Inc. |
| **[R3-233154](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233154.zip)** | (TP for NR\_Mob\_enh2 BL CR for TS 38.401) Discussion on signaling for candidate cells configuration | LG Electronics Inc. |
| **[R3-233195](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233195.zip)** | (TP for L1L2Mob BLCR for TS 38.401) Discussion on reference configuration in LTM | Google Inc. |
| **[R3-233196](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233196.zip)** | (TP for L1L2Mob BLCR for TS 38.401) Discussion on LTM execution | Google Inc. |
| **[R3-233225](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233225.zip)** | Discussion on L1L2 based Inter-Cell Mobility | CMCC |
| **[R3-233226](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233226.zip)** | (TP to TS 38.401) L1L2 based Inter-Cell Mobility | CMCC |
| **[R3-233233](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233233.zip)** | Further discussion on LTM | NTT DOCOMO INC. |
| **[R3-233234](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233234.zip)** | (TP to BLCR TS38.401 on SCG selective activation) Discussions on selective activation of the cell groups | Samsung |
| **[R3-233235](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233235.zip)** | Considerations on data forwarding optimization and avoiding unnecessary signalling for CHO in NR-DC | Samsung |
| **[R3-233236](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233236.zip)** | Discussion on indirect data forwarding on CHO+CPAC | Samsung |
| **[R3-233237](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233237.zip)** | Discussion on selective activation | NTT DOCOMO INC. |
| **[R3-233250](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233250.zip)** | (TP for LTM BL CR to TS 38.473) Discussion on L1L2 triggered mobility | ZTE |
| **[R3-233251](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233251.zip)** | TP for LTM BL CR to TS 38.401 | ZTE |
| **[R3-233252](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_120/Docs/R3-233252.zip)** | (TP to TS 38.423) Support of SCG selective activation | ZTE |

**RAN4 #106bis-e (April. 2023)**

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| --- | --- | --- |
| R4-2304171 | Discussion on general aspects and scenarios of L1/L2 triggered inter-cell mobility | ZTE Corporation |
| R4-2304172 | Discussion on LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | ZTE Corporation |
| R4-2304173 | Reply LS on L1 measurement RS configuration and PDCCH ordered RACH for LTM | ZTE Corporation |
| R4-2304174 | Discussion on the improvement on SCell/SCG setup/resume | ZTE Corporation |
| R4-2304175 | Discussion on NR-DC with selective activation of cell groups via L3 enhancment | ZTE Corporation |
| R4-2304176 | Discussion on Enhanced CHO configurations | ZTE Corporation |
| R4-2304223 | Discussion on general aspects and scenarios of L1/L2 based inter-cell mobility | China Telecom |
| R4-2304224 | Discussion on L1-RSRP measurement requirements of L1/L2 based inter-cell mobility | China Telecom |
| R4-2304225 | Discussion on L1/L2 inter-cell mobility delay requirements | China Telecom |
| R4-2304226 | L1-RSRP measurement requirements for LTM operations | Intel Corporation |
| R4-2304227 | L1/L2 inter-cell mobility delay requirements | Intel Corporation |
| R4-2304249 | Discussion on improvement on SCell/SCG setup delay | Intel Corporation |
| R4-2304291 | On L1/L2 based inter-cell mobility - General aspects and scenarios | Apple |
| R4-2304292 | On L1/L2 based inter-cell mobility - L1-RSRP measurement requirements | Apple |
| R4-2304293 | On L1/L2 based inter-cell mobility delay requirements | Apple |
| R4-2304294 | On NR-DC with selective activation of cell groups via L3 enhancements | Apple |
| R4-2304295 | On improvement on FR2 SCell/SCG setup delay | Apple |
| R4-2304296 | On Enhanced CHO configurations | Apple |
| R4-2304365 | Scenario and scope of RRM requirements for LTM | Qualcomm Korea |
| R4-2304366 | L1-RSRP measurement requirements | Qualcomm Korea |
| R4-2304367 | LTM handover delay requirements | Qualcomm Korea |
| R4-2304384 | Discussion on the requirement of subsequent CPC | Qualcomm Incorporated |
| R4-2304385 | Discussion on improvement on Scell/SCG setup delay | Qualcomm Incorporated |
| R4-2304386 | Discussion on Enhanced CHO configurations. | Qualcomm Incorporated |
| R4-2304409 | Discussion on general aspects and scenarios for L1/L2 based inter-cell mobility | CATT |
| R4-2304410 | Discussion on L1-RSRP measurement requirements for L1/L2 based inter-cell mobility | CATT |
| R4-2304411 | Discussion on L1/L2 inter-cell mobility delay requirements | CATT |
| R4-2304412 | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | CATT |
| R4-2304413 | Discussion on enhanced CHO configurations | CATT |
| R4-2304583 | Discussion on LTM General aspects and scenarios | Nokia, Nokia Shanghai Bell |
| R4-2304584 | Discussion on LTM measurement requirements | Nokia, Nokia Shanghai Bell |
| R4-2304585 | Discussion on LTM delay requirements | Nokia, Nokia Shanghai Bell |
| R4-2304586 | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | Nokia, Nokia Shanghai Bell |
| R4-2304587 | Discussion on Improvement on SCell/SCG setup delay | Nokia, Nokia Shanghai Bell |
| R4-2304588 | Discussion on Enhanced CHO configurations | Nokia, Nokia Shanghai Bell |
| R4-2304672 | Discussion on L1-RSRP measurement requirements | ZTE Corporation |
| R4-2304673 | Discussion on L1/L2 inter-cell mobility delay requirements | ZTE Corporation |
| R4-2304765 | Discussion on general aspects and scenarios for LTM | Xiaomi |
| R4-2304766 | Discussion on L1-RSRP measurement requirements for LTM | Xiaomi |
| R4-2304767 | Discussion on L1/L2 based inter-cell mobility delay requirement | Xiaomi |
| R4-2304768 | Discussion on improvement on SCell/SCG setup delay | Xiaomi |
| R4-2304809 | Discussion on general aspects in R18 L1L2-triggered mobility | vivo |
| R4-2304810 | Discussion on L1 measurements in R18 L1L2-triggered mobility | vivo |
| R4-2304811 | Discussion on cell switch delay requirements in R18 L1L2-triggered mobility | vivo |
| R4-2304812 | LS to RAN2 on the measurement framework in R18 LTM | vivo |
| R4-2304844 | Discussion on L1/L2 inter-cell mobility delay requirements | CMCC |
| R4-2304845 | Discussion on general aspects for L1/L2 based inter-cell mobility | CMCC |
| R4-2304846 | Discussion on improvement on SCell/SCG setup delay | CMCC |
| R4-2304847 | Discussion on L1-RSRP measurement requirements for L1/L2 based inter-cell mobility | CMCC |
| R4-2304848 | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | CMCC |
| R4-2304894 | Discussion on selective activaiton of the cell groups in NR-DC | Ericsson |
| R4-2304895 | Disucssion on enhancement of FR2 Idle/Inactive measurement reporting | Ericsson |
| R4-2304896 | Discussion on enhanced CHO configurations | Ericsson |
| R4-2304909 | Discussion on improvement on SCell/SCG setup delay | LG Electronics UK |
| R4-2304923 | Discussion on general aspects and scenarios of LTM | MediaTek Inc. |
| R4-2304924 | Discussion on L1-RSRP measurement requirements for LTM | MediaTek Inc. |
| R4-2304925 | Discussion on LTM delay requirements | MediaTek Inc. |
| R4-2304926 | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | MediaTek Inc. |
| R4-2304927 | Discussion on improvement on SCell/SCG setup/resume | MediaTek Inc. |
| R4-2304928 | Discussion on Enhanced CHO configurations | MediaTek Inc. |
| R4-2305052 | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | vivo |
| R4-2305053 | Discussion on Enhanced CHO configurations | vivo |
| R4-2305054 | Discussion on RRM requirements of FR2 measurements for DC/CA setup/resume | vivo |
| R4-2305198 | General aspects discussions for L1/L2 based inter-cell mobility | NTT DOCOMO, INC. |
| R4-2305239 | On general and scenarios of L1L2 based inter-cell mobility | OPPO |
| R4-2305240 | On L1-RSRP measurement of L1L2 based inter-cell mobility | OPPO |
| R4-2305241 | On L1L2 inter-cell mobility delay requirements | OPPO |
| R4-2305242 | On NR-DC with selective activation of cell groups via L3 enhancements | OPPO |
| R4-2305243 | On improvement on FR2 SCellSCG setupresume | OPPO |
| R4-2305275 | Discussion on general aspects on L1/L2 based inter-cell mobility | Huawei, HiSilicon |
| R4-2305276 | Discussion on L1-RSRP measurement requirements | Huawei, HiSilicon |
| R4-2305277 | Discussion on L1/L2 inter-cell mobility delay requirements | Huawei, HiSilicon |
| R4-2305278 | Discussion on SFN alignment for L1/L2-based inter-cell mobility | Huawei, HiSilicon |
| R4-2305279 | NR-DC with selective activation of cell groups via L3 enhancements | Huawei, HiSilicon |
| R4-2305280 | Discussion on improvement on FR2 SCell/SCG setup/resume | Huawei, HiSilicon |
| R4-2305281 | Discussion on Enhanced CHO configurations | Huawei, HiSilicon |
| R4-2305760 | On LTM general aspects and scenarios | Ericsson |
| R4-2305761 | On L1-RSRP measurement requirements | Ericsson |
| R4-2305762 | On LTM delay requirements | Ericsson |
| R4-2305763 | Discussion on pre-sync aspects of LTM | Ericsson |
| R4-2306166 | Topic summary for [106-bis-e][218] NR\_Mob\_enh2\_part1 | Moderator (MediaTek) |
| R4-2306167 | Topic summary for [106-bis-e][219] NR\_Mob\_enh2\_part2 | Moderator (Apple) |
| R4-2306249 | Topic summary for [106-bis-e][218] NR\_Mob\_enh2\_part1 | Moderator (MediaTek) |
| R4-2306250 | Topic summary for [106-bis-e][219] NR\_Mob\_enh2\_part2 | Moderator (Apple) |

**RAN4 #107 (May 2023, Incheon, Korea)**

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| --- | --- | --- |
| R4-2307274 | Scenario and scope of RRM requirements for LTM | Qualcomm Incorporated |
| R4-2307275 | L1-RSRP measurement requirements | Qualcomm Incorporated |
| R4-2307276 | LTM handover delay requirements | Qualcomm Incorporated |
| R4-2307277 | Response to LS on beam indication of target cell(s) and time gap between a PDCCH order and the corresponding PRACH transmission for LTM | Qualcomm Incorporated |
| R4-2307398 | Discussion on general aspects and scenarios for L1/L2 based inter-cell mobility | CATT |
| R4-2307399 | Discussion on L1-RSRP measurement requirements for L1/L2 based inter-cell mobility | CATT |
| R4-2307400 | Discussion on L1/L2 inter-cell mobility delay requirements | CATT |
| R4-2307401 | Reply LS on time gap between a PDCCH order and the corresponding PRACH transmission for LTM | CATT |
| R4-2307402 | Discussion on Improvement on SCell/SCG setup delay | CATT |
| R4-2307403 | Discussion on enhanced CHO configurations | CATT |
| R4-2307508 | Discussion on general aspects and scenarios of L1/L2 based inter-cell mobility | China Telecom |
| R4-2307509 | Discussion on L1-RSRP measurement requirements of L1/L2 based inter-cell mobility | China Telecom |
| R4-2307510 | Discussion on L1/L2 inter-cell mobility delay requirements | China Telecom |
| R4-2307562 | Discussion on L1/L2 inter-cell mobility delay requirements | CMCC |
| R4-2307563 | Discussion on general aspects for L1/L2 based inter-cell mobility | CMCC |
| R4-2307564 | Discussion on improvement on SCell/SCG setup delay | CMCC |
| R4-2307565 | Discussion on L1-RSRP measurement requirements for L1/L2 based inter-cell mobility | CMCC |
| R4-2307566 | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | CMCC |
| R4-2307567 | Discussion on enhanced CHO | CMCC |
| R4-2307607 | Draft Reply LS on time gap between a PDCCH order and the corresponding PRACH transmission for LTM | MediaTek Inc. |
| R4-2307608 | Discussion on general aspects and scenarios of LTM | MediaTek Inc. |
| R4-2307609 | Discussion on L1-RSRP measurement requirements for LTM | MediaTek Inc. |
| R4-2307610 | Discussion on LTM delay requirements | MediaTek Inc. |
| R4-2307611 | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | MediaTek Inc. |
| R4-2307612 | Discussion on improvement on SCell/SCG setup/resume | MediaTek Inc. |
| R4-2307613 | Discussion on Enhanced CHO configurations | MediaTek Inc. |
| R4-2307645 | Discussion on RAN1 LS on LTM | Apple |
| R4-2307646 | Discussion on general aspects and scenarios of L1/L2 based inter-cell mobility | Apple |
| R4-2307647 | Discussion on L1-RSRP measurement requirements of L1/L2 based inter-cell mobility | Apple |
| R4-2307648 | Discussion on L1/L2 based inter-cell mobility delay requirements | Apple |
| R4-2307649 | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | Apple |
| R4-2307650 | Discussion on improvement on FR2 SCell/SCG setup delay | Apple |
| R4-2307651 | LS on improvement on FR2 SCell/SCG setup delay | Apple |
| R4-2307652 | Discussion on Enhanced CHO configurations | Apple |
| R4-2307706 | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | vivo |
| R4-2307707 | Discussion on Enhanced CHO configurations | vivo |
| R4-2307708 | Discussion on RRM requirements of FR2 measurements for DC/CA setup/resume | vivo |
| R4-2307802 | L1-RSRP measurement requirements for LTM operations | Intel Corporation |
| R4-2307879 | Discussion on improvement on SCell/SCG setup delay | LG Electronics UK |
| R4-2307926 | Discussion on NR-DC with selective activation of cell groups via L3 enhancment | ZTE Corporation |
| R4-2307927 | Discussion on the improvement on SCell/SCG setup/resume delay | ZTE Corporation |
| R4-2307928 | Discussion on Enhanced CHO configurations | ZTE Corporation |
| R4-2307929 | Discussion on general aspects and scenarios of L1/L2 triggered inter-cell mobility | ZTE Corporation |
| R4-2307948 | Discussion on general aspects and scenarios for LTM | Xiaomi |
| R4-2307949 | Discussion on L1-RSRP measurement requirements for LTM | Xiaomi |
| R4-2307950 | Discussion on L1/L2 based inter-cell mobility delay requirement | Xiaomi |
| R4-2307951 | Discussion on improvement on SCell/SCG setup delay | Xiaomi |
| R4-2308215 | Discussion on general aspects in R18 LTM | vivo |
| R4-2308216 | Discussion on L1 measurements in R18 LTM | vivo |
| R4-2308217 | Discussion on cell switch delay requirements in R18 LTM | vivo |
| R4-2308218 | LS on the measurement and cell switch procedures in R18 LTM | vivo |
| R4-2308327 | Discussion on general aspects on L1/L2 based inter-cell mobility | Huawei, HiSilicon |
| R4-2308328 | Discussion on L1-RSRP measurement requirements | Huawei, HiSilicon |
| R4-2308329 | Discussion on L1/L2 inter-cell mobility delay requirements | Huawei, HiSilicon |
| R4-2308330 | Discussion on SFN alignment for L1/L2-based inter-cell mobility | Huawei, HiSilicon |
| R4-2308331 | NR-DC with selective activation of cell groups via L3 enhancements | Huawei, HiSilicon |
| R4-2308332 | Discussion on improvement on FR2 SCell/SCG setup/resume | Huawei, HiSilicon |
| R4-2308333 | Discussion on Enhanced CHO configurations | Huawei, HiSilicon |
| R4-2308410 | Discussion on L1-RSRP measurement requirements | ZTE Corporation |
| R4-2308411 | Discussion on L1/L2 inter-cell mobility delay requirements | ZTE Corporation |
| R4-2308485 | On general and scenarios of L1L2 based inter-cell mobility | OPPO |
| R4-2308486 | On L1-RSRP measurement of L1L2 based inter-cell mobility | OPPO |
| R4-2308487 | On L1L2 inter-cell mobility delay requirements | OPPO |
| R4-2308488 | On NR-DC with selective activation of cell groups via L3 enhancements | OPPO |
| R4-2308489 | On improvement on FR2 SCellSCG setupresume | OPPO |
| R4-2308821 | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | Ericsson |
| R4-2308822 | Discussion on improvement on Scell/SCG setup delay | Ericsson |
| R4-2308823 | Discussion on enhanced CHO configurations | Ericsson |
| R4-2309425 | Discussion on the requirement of subsequent CPC | Qualcomm Incorporated |
| R4-2309426 | Discussion on improvement on Scell/SCG setup delay | Qualcomm Incorporated |
| R4-2309427 | Discussion on Enhanced CHO configuraitons. | Qualcomm Incorporated |
| R4-2309489 | Discussion on LTM General aspects and scenarios | Nokia, Nokia Shanghai Bell |
| R4-2309490 | Discussion on LTM measurement requirements | Nokia, Nokia Shanghai Bell |
| R4-2309491 | Discussion on LTM delay requirements | Nokia, Nokia Shanghai Bell |
| R4-2309492 | Discussion on NR-DC with selective activation of cell groups via L3 enhancements | Nokia, Nokia Shanghai Bell |
| R4-2309493 | Discussion on Improvement on SCell/SCG setup delay | Nokia, Nokia Shanghai Bell |
| R4-2309494 | Draft LS on enhanced FR2 measurements at connection setup/resume  | Nokia, Nokia Shanghai Bell |
| R4-2309495 | Discussion on Enhanced CHO configurations | Nokia, Nokia Shanghai Bell |
| R4-2309593 | On LTM general aspects and scenarios | Ericsson |
| R4-2309594 | On L1-RSRP measurement requirements | Ericsson |
| R4-2309595 | On LTM delay requirements | Ericsson |
| R4-2309596 | Discussion on PDCCH order-based RACH delay requirements | Ericsson |
| R4-2309968 | Topic summary for [107][223] NR\_Mob\_enh2\_part1 | Moderator (MediaTek) |
| R4-2309969 | Topic summary for [107][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