Mobility Comments file

Template:

# Exxx

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
|  |  |  |  |  |  |  |  |  |

**[Description]**: Based on the current spec, it is unclear whether LTM, CLTM based handover can be applied to the intermediate SL relay UEs.

**[Proposed Change]**: R2 to clarify whether LTM, CLTM based handover can be applied to the intermediate SL relay UEs or not.

**[Comments]**:

Instructions:

1. Copy the template RIL comments fields above (including the Heading Xnnn)
2. Paste the RIL comments fields at its position while **respecting the order of the RILs in the Review file (i.e. keep the order of the spec).**
3. Fill in the fields, see R19 ASN.1 Guideline.
4. Companies may comment whether they agree or disagree.
5. Can copy spec text and use Word “Track changes”, etc.
6. Do not delete text added by other companies.
7. Please pay attention to the text styles of the RIL comment fields.

# O001

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| O001 | MOB, SLRelay | 1 | LTM, C-LTM applicability to intermediate Relay | R2-25xxxxx | OPPO (Qianxi) |  | V003 | ToDo |

**[Description]**: Based on the current spec, it is unclear whether LTM, CLTM based handover can be applied to the intermediate SL relay UEs.

**[Proposed Change]**: R2 to clarify whether LTM, CLTM based handover can be applied to the intermediate SL relay UEs or not.

**[Comments]**:

# E005

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| E005 | MOB | 2 | Handling of radio bearers during LTM cell switch | R2-25xxxxx | Tony (Ericsson) |  | V004 | ToDo |

**[Description]**: Current specification assumes that when the target configuration prepares the LTM candidate configuration, it needs to prepare a radio bearer configuration which is according to the bearer configuration the UE is using in its current source cell. However, there are no means at the moment for the target cell to know what bearer configuration the UE is using in the source cell.

**[Proposed Change]**: The issue is rather complex and we plan to bring a contribution to the next meeting where we explain the problem and also the possible solutions.

**[Comments]**:

# C150

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C150 | MOB | 1 | Upon inter-CU MCG LTM execution, SN key update is also needed for the case that SN terminated bearer configured with MCG RLC leg only. |  | Rui  (CATT) |  | V005 |  |

**[Description]**: Upon inter-CU MCG LTM execution, SN key update is also needed for the case that SN terminated bearer configured with MCG RLC leg only. However, in this case, the LTM-Candidate IE indicated by lower layers includes an mrdc-SecondaryCellGroupConfig set to release.Thus.the current spec is not correct.

**[Proposed Change]**:

2> if this *RRCReconfiguration* message is applied due to an LTM cell switch execution procedure which requires an update of the master security key, according to clause 5.3.5.18.6:

~~3> if the~~ *~~LTM-Candidate~~* ~~IE indicated by lower layers does not include an~~ *~~mrdc-SecondaryCellGroupConfig~~* ~~set to~~ *~~release~~*~~:~~

~~4~~3> perform security key update procedure as specified in 5.3.5.7;

**[Comments]**:

# C151

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C151 | MOB | 1 | It is not clear on whether the UE should stop the LTM conditions evaluation based on L1 measurements and/or based on L3 measurements. |  | Rui  (CATT) |  | V005 |  |

**[Description]**:.

**[Proposed Change]**:

2> else:

3> if the target SpCell is different from current SpCell:

~~4> stop the LTM conditions evaluation, if any, for all the LTM candidate configurations;~~

~~4> if the UE is performing LTM cell switch conditions evaluation based on L1 measurements:~~

~~5> request lower layers to stop the LTM cell switch conditions evaluation for all LTM candidate configurations;~~

4> if UE is performing LTM cell switch conditions evaluation based on L1 measurements:

5> request lower layers to stop the LTM conditions evaluation based on L1 measurements for all the LTM candidate configurations;

4> if UE is performing LTM cell switch conditions evaluation based on L3 measurements:

5> stop the LTM cell switch conditions evaluation based on L3 measurements for all the LTM candidate configurations;

3> start synchronising to the DL of the target SpCell;

**[Comments]**:

# C152

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C152 | MOB | 1 | Ambiguity on whether the IE *ltm-Config* can be the one included in the *RRCReconfiguration* message contained in nr-SCG . |  | Rui  (CATT) |  | V005 |  |

**[Description]**: Ambiguity on whether the IE *ltm-Config* can be the one included in the *RRCReconfiguration* message contained in nr-SCG.

**[Proposed Change]**:

5.3.5.18.1 LTM configuration

……

An *ltm-Config* included within an *RRCReconfiguration* message not included in *nr-SCG* received via SRB1 is for LTM on the MCG. It may include an SCG configuration and/or *ltm-ServingCellNoSecurityChangeID*.

An *ltm-Config* included within an *RRCReconfiguration* message either received via SRB3, or embedded *nr-SCG* in in an *RRCReconfiguration* message received via SRB1 is for LTM on the SCG. It does not include any MCG configuration and does not include *ltm-ServingCellNoSecurityChangeID*.

**[Comments]**:

# C153

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C153 | MOB | 1 | UE should stop the corresponding LTM conditions evaluation before release the ltm-ServingCellExecutionCondition. |  | Rui  (CATT) |  | V005 |  |

**[Description]**: When *ltm-ServingCellExecutionCondition* is set to *release,* UE should stop the corresponding LTM conditions evaluation before release the ltm-ServingCellExecutionCondition..

**[Proposed Change]**:

5.3.5.18.1 LTM configuration

……

1. else (*ltm-ServingCellExecutionCondition* set to *release*):

2> Stop the corresponding LTM conditions evaluation,

2> release the *ltm-ServingCellExecutionCondition*

**[Comments]**:

# C154

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C154 | MOB | 1 | Ambiguity on removing the the selected *sk-Counter* value from which entry in *ltm-SK-Counters*. |  | Rui  (CATT) |  | V005 |  |

**[Description]**: it is not clear UE should remove the selected *sk-Counter* value from which entry in ltm-SK-Counters, as ltm-SK-Counters includes multiple entries of SK-CounterConfigLTM as follows,

VarLTM-ServingCellNoSecurityChange-r19 ::= SEQUENCE {

ltm-ServingCellNoSecurityChangeID-r19 INTEGER (1..maxNrofLTM-Configs-plus1-r18) OPTIONAL,

ltm-SK-Counters-r19 SEQUENCE (SIZE (1..maxSecurityCellSet-r18)) OF SK-CounterConfigLTM-r19 OPTIONAL

}

.

**[Proposed Change]**:

5.3.5.18.6 LTM cell switch execution

……

2> else if the LTM cell switch is triggered on the SCG:

3> consider the first *sk-Counter* value in the *ltm-SK-Counters* within the *VarLTM-ServingCellNoSecurityChange* associated to the the field *ltm-NoSecurityChangeID* as the selected *sk-Counter* value, and update the secondary key by performing security key update procedure as specified in 5.3.5.7;

3> remove the selected *sk-Counter* value from the entry associated to the the field *ltm-NoSecurityChangeID* in the *ltm-SK-Counters* within the *VarLTM-ServingCellNoSecurityChange*;

**[Comments]**:

# C155

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C155 | MOB | 1 | Upon LTM execution, UE behaivor is missing on performing PDCP discard for SRBs according to the Rel-19 ID. |  | Rui  (CATT) |  | V005 |  |

**[Description]**: Upon LTM execution, UE behaivor is missing on performing PDCP discard for SRBs according to the Rel-19 ID.This is needed according to the RAN2 agreements as follows,

1. For inter-CU MCG LTM, when the Rel-19 ID of candidate cell is the same with serving cell, the UE performs PDCP SDU discard for SRB1/SRB2.
2. For SRBs in inter-CU SCG LTM, Rel-19 ID is used to determine whether PDCP re-establishment or PDCP SDU discard is performed for LTM execution for SRB3.

**[Proposed Change]**:

**[Comments]**:

# C156

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C156 | MOB | 1 | Duplicated check for the different R19 ID case |  | Rui  (CATT) |  | V005 |  |

**[Description]**: it is duplicated with,

1> if the value of *ltm-NoSecurityChangeID* contained in the *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC* indicated by lower layers or for the selected cell in accordance with 5.3.7.3 is not equal to the value of *ltm-ServingCellNoSecurityChange* within *VarLTM-ServingCellNoSecurityChange*:

**[Proposed Change]**:

5.3.5.18.6 LTM cell switch execution

……

1> if the value of *ltm-NoSecurityChangeID* contained in the *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC* indicated by lower layers or for the selected cell in accordance with 5.3.7.3 is not equal to the value of *ltm-ServingCellNoSecurityChange* within *VarLTM-ServingCellNoSecurityChange*:

……

~~2> if the value of field~~ *~~ltm-NoSecurityChangeID~~* ~~contained in the~~ *~~LTM-Candidate~~* ~~IE in~~ *~~ltm-Config~~* ~~or~~ *~~ltm-ConfigNRDC~~* ~~indicated by lower layers or for the selected cell in accordance with 5.3.7.3 is not equal to the value of~~ *~~ltm-ServingCellNoSecurityChangeID~~* ~~within~~ *~~VarLTM-ServingCellNoSecurityChange~~*

2~~3~~> replace the value of *ltm-ServingCellNoSecurityChangeID* in *VarLTM-ServingCellNoSecurityChange* with the value of *ltm-NoSecurityChangeID* in the *LTM-Candidate* in *ltm-Config* or *ltm-ConfigNRDC* indicated by lower layers or for the selected cell in accordance with 5.3.7.3;

1> else if the field *ltm-NoSecurityChangeID* is not configured for the *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC* indicated by lower layers and if the UE does not have any value stored of *ltm-ServingCellNoSecurityChangeID* within *VarLTM-ServingCellNoSecurityChangeID*; or

**[Comments]**:

# C157

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C157 | MOB | 1 | There is no need to mandatorily provide the 2TA configuration in the IE EarlyUL-SyncConfig if *tag2* is present in the *SpCellConfig* in *ltm-CandidateConfig* |  | Rui  (CATT) |  | V005 |  |

**[Description]**:

NW should have the flexibility to perform early UL sync on a specific TRP even though the mTRP configuration is present in the candidate configuration.

**[Proposed Change]**:

|  |  |
| --- | --- |
| Conditional Presence | Explanation |
| *2TA* | This field is ~~mandatory~~optional present if *tag2* is present in the *SpCellConfig* in *ltm-CandidateConfig*. It is absent, Need R, otherwise. |
| *L139* | The field is mandatory present if *prach-RootSequenceIndex* L=139, otherwise the field is absent, Need S. |
| *TDD* | This field is optionally present, Need R, for TDD LTM candidate cells. It is absent otherwise. |

**[Comments]**:

# C158

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C158 | MOB | 1 | Add the field description for ltm-CSI-ReportConfig-r19 under the LTM-Candidate |  | Rui  (CATT) |  | V005 |  |

**[Description]**: suggest to add the field description for ltm-CSI-ReportConfig-r19 under the LTM-Candidate to clarify the following aspects,

- It is used to configure CSI report setting for the candidate cell configured by the LTM-Candidate

- UE ignores the associated RSs from other candidate cell when acquire CSI for this candidate cell.

- If LTM-CSI-ReportConfig is configured under in an LTM-Candidate, the UE ignores the fields ltm-ReportConfigType and ltm-ReportContent.

**[Proposed Change]**:

**[Comments]**:

# C159

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C159 | MOB | 1 | Ambiguity of the ltm-ExecutionCondition field description on whether it is only used for MCG LTM |  | Rui  (CATT) |  | V005 |  |

**[Description]**:

CLTM is only supported on MCG LTM, However, “an ltm-Config associated with the MCG” used in the field description is not equal to MCG LTM.for example,a inter-CU SCG LTM configuration is also associated with the MCG.

**[Proposed Change]**:

|  |
| --- |
| *LTM-Candidate* field descriptions |
| ***ltm-ExecutionCondition***  This field can only be included in an *ltm-Config* ~~associated with the MCG~~ for LTM on the MCG. |

**[Comments]**:

# C160

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C160 | MOB | 1 | Ambiguity of the ltm-ServingCellExecutionCondition field description on whether it is only used for MCG LTM |  | Rui  (CATT) |  | V005 |  |

**[Description]**: similar issue as C159

**[Proposed Change]**:

|  |
| --- |
| *LTM-Config field descriptions* |
| ***ltm-ServingCellExecutionCondition***  This field can can only be included in an *ltm-Config* ~~associated with the MCG~~ for LTM on the MCG. |

**[Comments]**:

# C161

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C161 | MOB | 1 | Ambiguity of the reportQuantity field description on the wording “CSI report” |  | Rui  (CATT) |  | V005 |  |

**[Description]**:

It is not clear whether the wording “CSI report” means early CSI acquization.

**[Proposed Change]**:

|  |
| --- |
| *LTM-ReportContent field descriptions* |
| ***nrOfReportedCells***  This field defines how many cells are reported within a single L1 measurement report instance. |
| ***nrOfReportedRS-PerCell***  This field defines how many RSs per cell are reported within a single L1 measurement report instance. |
| ***spCellInclusion***  This field indicates whether the UE shall include a L1 measurement report associated to the current SpCell. This field can only be configured if the current SpCell is configured as an SpCell of an LTM candidate configuration and the *LTM-CSI-ResourceConfig* IE associated to the *LTM-CSI-ReportConfig* IE includes resources for the current SpCell. |
| ***reportQuantity***  Indicates the report quantity ~~for the CSI report~~. |

**[Comments]**:

# C162

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C162 | MOB | 1 | Issue on the name and place of the candidateSpecificOffsetS field description |  | Rui  (CATT) |  | V005 |  |

**[Description]**:

Two issue to address,

it is not suitable to used candidate in the the name of ***candidateSpecificOffsetS*** as it is used for serving cell

the field description should be under *LTM-CSI-ReportConfig* but not LTM-CandidateReportConfig

**[Proposed Change]**:

|  |
| --- |
| *LTM-CSI-ReportConfig* field descriptions |
| *eventId*  Type of LTM event for triggering event-triggered measurement report as specified in TS 38.321 [3]. |
| ***hysteresis***  Hysteresis when evaluating the entering/leaving conditions for an LTM event. |
| ***ltm-CandidateReportConfigList***  List of report configurations for LTM candidate IDs. If the field is absent the UE shall measure all the LTM candidate cells associated to the field *ltm-ResourcesForChannelMeasurement.* |
| ***ltm-EventTriggeredPeriodicReport***  This field indicates when an LTM event is triggered, whether the event-triggered measurement report is sent periodically. If the field is absent, the event-triggered measurement report is sent once, as specified in TS 38.321 [3]. |
| ***ltm-EventTriggeredReportContent***  This field indicates what to include in a measurement report when an LTM event is triggered. When this field is absent, the field *ltm-ReportConfigType* is set to *eventTriggered*, and the corresponding *LTM-CSI-ReportConfigId* is part of an *LTM-ExecutionConditionList* IE, when the associated LTM event is fulfilled, the UE triggers an LTM cell switch procedure instead of an event-triggered measurement report, as specified in TS 38.321 [3]. |
| ***ltm-ReportConfigType***  This field specifies how the UE shall report the measurement results for LTM either by gNB-scheduled measurement report or by event-triggered measurement report by MAC CE. The UE shall ignore this field if *LTM-CSI-ReportConfig* is configured in a *LTM-Candidate* IE. |
| ***ltm-ReportContent***  This field defines the content of the LTM L1 measurement report. The UE shall ignore this field if the field *ltm-ReportConfigType* is set to *eventTriggered*. |
| ***ltm-ResourcesForChannelMeasurement, ltm-ResourceForInterferenceMeasurements***  This field indicates the index of SSB or CSI-RS in the field *LTM-CSI-ResourceConfig*. |
| ***ltm2-Threshold, ltm4-Threshold, ltm5-Threshold1, ltm5-Threshold2***  Thresholds defined in the entering/leaving conditions for different LTM events. |
| ***ltm3-Offset***  Offset for the entering/leaving condition for event LTM3. The actual value is field value \* 0.5 dB. |
| ***reportOnLeave***  Indicates whether the event-triggered measurement report by MAC CE shall be triggered when leaving condition is satisfied, as specified in TS 38.321 [3]. |
| ***reportSlotConfig***  Periodicity and slot offset (see TS 38.214 [19], clause 5.2.1.4). The UE shall ignore the offset provided by this field in case *semiPersistentOnPUSCH* is configured. |
| ***reportSlotOffsetList, reportSlotOffsetListDCI-0-1***, ***reportSlotOffsetListDCI-0-2***  Timing offset Y for semi persistent reporting using PUSCH and aperiodic reporting. |
| ***servingSpecificOffset***  Offset for event condition that is applicable for all the reference signals belonging to serving cell. If the field is absent, the value '0dB' is applied. |

|  |
| --- |
| *LTM-CandidateReportConfig* field descriptions |
| ***ltm-CandidateReportConfigId***  LTM candidate cell ID for which the UE is required to measure reference signal and perform LTM event evaluation as specified in TS 38.321 [3]. |
| ***candidateSpecificOffset***  Offset for event condition that is applicable for all the reference signals belonging to the candidate cell with the candidate cell ID *ltm-CandidateReportConfigId*. If the field is absent, the value '0dB' is applied. |
| ***~~candidateSpecificOffsetS~~***  ~~Offset for event condition that is applicable for all the reference signals belonging to serving cell. If the field is absent, the value '0dB' is applied.~~ |

**[Comments]**:

# C163

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C163 | MOB | 1 | Wrong fields in the LTM-CSI-IM-ResourceSet field descriptions |  | Rui  (CATT) |  | V005 |  |

**[Description]**:

There is no field ltm-CSI-IM-ResourceList in *LTM-CSI-IM-ResourceSet*, it should beltm-CSI-IM-ResourceSetId and ltm-CandidateId

.

**[Proposed Change]**:

**[Comments]**:

# C164

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C164 | MOB | 1 | Suffix “-r19” should be used instead of “” for the ReportInterval-v19xy |  | Rui  (CATT) |  | V005 |  |

**[Description]**:

As ReportInterval-v19xy includes all the values in the legacy ReportInterval, Suffix “-r19” should be used instead of “” for the ReportInterval-v19xy

.

**[Proposed Change]**:

*ReportInterval* information element

-- ASN1START

-- TAG-REPORTINTERVAL-START

ReportInterval ::= ENUMERATED {ms120, ms240, ms480, ms640, ms1024, ms2048, ms5120, ms10240, ms20480, ms40960,

min1,min6, min12, min30 }

ReportInterval-~~v19xy~~r19 ::= ENUMERATED {ms20, ms60, ms120, ms240, ms480, ms640, ms1024, ms2048, ms5120, ms10240, ms20480, ms40960,

min1,min6, min12, min30 }

-- TAG-REPORTINTERVAL-STOP

-- ASN1STOP

**[Comments]**:

# C165

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C165 | MOB | 1 | ltm-ReferenceConfigurationMCG in *CG-ConfigInfo should contain the LTM reference configuration* to be used at the SCG, but not MCG |  | Rui  (CATT) |  | V005 |  |

**[Description]**:

In the field description ltm-ReferenceConfigurationMCG in *CG-ConfigInfo,it says “*The field contains the LTM reference configuration to be used at the MCG*”*.In our understanding, it should be LTM reference configuration to be used at the SCG.

.

**[Proposed Change]**:

***ltm-ReferenceConfigurationMCG***

The field contains the LTM reference configuration to be used at the ~~MCG~~SCG. This field is only used in NR-DC.

**[Comments]**: