Mobility Comments file

Template:

# Exxx

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| 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

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| 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

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| 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

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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]**:

[Xiaomi/Yi Xiong]

We also think UE needs to stop CLTM evaluation, but we think UE needs to stop CLTM conditions evaluation for all the LTM candidate configurations.

Because subsequent CLTM is supported, after the initial CLTM, the UE may perform CLTM evaluation based on the conditions configured by *ltm-ExecutionCondition* configured within the *LTM-Candidate*. Hence, just stopping the corresponding LTM conditions evaluation does not cause the UE to stop CLTM evaluation based on the conditions configured by *ltm-ExecutionCondition*. And when the current serving cell set *ltm-ServingCellExecutionCondition* to *release*, it means the current serving cell wants UE to suspend CLTM.

Based on the above description, we suggest the following change:

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

2> release the *ltm-ServingCellExecutionCondition*;

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

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

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

3> stop the LTM cell switch conditions evaluation based on L3 measurements for all the LTM candidate configurations as specified in 5.3.5.18.x.

# C154

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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]**:

[Xiaomi/Yi Xiong]

We also think the above procedures are duplicated. We support the change.

# C157

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| 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

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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

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| 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]**:

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| --- |
| *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

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| 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]**:

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| --- |
| *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

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| 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]**:

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| --- |
| *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

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| 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]**:

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| --- |
| *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. |

|  |
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| *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

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| 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

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| 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

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| 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]**:

X150

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X150 | MOB | 1 | Avoid stop CLTM evaluation for new configured CLTM conditions. | R2-25xxxxx | Xiaomi (Yi Xiong) |  | V006 | ToDo |

 **[Description]**: In LTM configuration section 5.3.5.18.1, for each LTM-ExecutionCondition included within ltm-ServingCellExecutionCondition, the UE stop CLTM evaluation for all the LTM candidate configurations and then UE perform CLTM evaluation for associated candidate cell, as shown below.

1> if the received *LTM-Config* includes the field *ltm-ServingCellExecutionCondition* set to *setup*:

2> for each *LTM-ExecutionCondition* included within *ltm-ServingCellExecutionCondition*:

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

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

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

4> stop the LTM cell switch conditions evaluation based on L3 measurements for all the LTM candidate configurations as specified in 5.3.5.18.x;

3> if *l3-Conditions* is included within *ltm-ServingCellExecutionCondition*:

4> perform the LTM cell switch conditions evaluation based on L3 measurements as specified in 5.3.5.18.x according to the received *ltm-ServingCellExecutionCondition*;

3> else if *l1-Conditions* is included within *ltm-ServingCellExecutionCondition*:

4> request lower layers to initiate the LTM cell switch conditions evaluation based on L1 measurements according to the received field *ltm-ServingCellExecutionCondition*;

Based on the current spec, for each *LTM-ExecutionCondition* included within *ltm-ServingCellExecutionCondition*, the UE shall perform the blue part once. The blue part performed during the next “if” LOOP will cause the UE stop the CLTM evaluation which is triggered in previous “if” LOOP(s). The final result is that the UE will only perform CLTM evaluation for the conditions included in the last *LTM-ExecutionCondition* of the LOOP. This is incorrect and the UE shall perform evaluation based on the all new configured CLTM conditions

Hence, we suggest to move the procedure of “2> for each *LTM-ExecutionCondition* included within *ltm-ServingCellExecutionCondition*:” after the UE stop CLTM execution for all CLTM candidate.

**[Proposed Change]**: Based on the above description, we suggest the following change:

1> if the received *LTM-Config* includes the field *ltm-ServingCellExecutionCondition* set to *setup*:

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

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

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

3> stop the LTM cell switch conditions evaluation based on L3 measurements for all the LTM candidate configurations as specified in 5.3.5.18.x;

2> for each *LTM-ExecutionCondition* included within *ltm-ServingCellExecutionCondition*:

3> if *l3-Conditions* is included within *ltm-ServingCellExecutionCondition*:

4> perform the LTM cell switch conditions evaluation based on L3 measurements as specified in 5.3.5.18.x according to the received *ltm-ServingCellExecutionCondition*;

3> else if *l1-Conditions* is included within *ltm-ServingCellExecutionCondition*:

4> request lower layers to initiate the LTM cell switch conditions evaluation based on L1 measurements according to the received field *ltm-ServingCellExecutionCondition*;

**[Comments]**:

X151

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X151 | MOB | 1 | Correction on conditional LTM cell switch execution for only one triggered LTM candidate configuration | R2-25xxxxx | Xiaomi (Yi Xiong) |  | V006 | ToDo |

 **[Description]**: In LTM cell switch conditions evalution based on L3 measurements section 5.3.5.18.x, the target candidate cell, whose condition is met, is not considered as the selected cell.

In LTM cell switch execution section 5.3.5.18.6:

For L3 based CLTM (LTM cell switch triggered upon the fulfilment of LTM cell switch execution conditions), the LTM cell switch execution is based on the selected cell., as shown below:

1> else (LTM cell switch triggered upon cell selection performed while timer T311 was running or upon the fulfilment of LTM cell switch execution conditions (as specified in clause 5.3.5.18.x):

2> apply the *RRCReconfiguration* message in *ltm-CandidateConfig* within *LTM-Candidate* IE in *ltm-Config* related to the LTM candidate configuration identity for the selected cell (i.e., in accordance with 5.3.5.18.x or 5.3.7.3) according to clause 5.3.5.3;

However, the selected cell is determined by the bullet 2>, which is only applicable when ‘more than one LTM candidate configuration has triggered’, as shown below:

1> if this procedure is triggered due to fulfilment of LTM cell switch execution conditions:

2> if more than one LTM candidate configuration has triggered this procedure:

3> select one of the LTM candidate configurations as the selected cell for the LTM cell switch execution;

Therefore, if only one LTM candidate configuration has triggered, there would be no ‘selected cell’ according to the current spec. LTM cell switch execution for L3 CLTM can not be executed.

The similar issue of CHO has been discussed in RAN2, and the CR “R2- 2202835 Correction on conditional reconfiguraiton execution for only one triggered cell” has been agreed in RAN2#117-e meeting for the similar issue of CHO.

**[Proposed Change]**: Based on the above description, we suggest the following change:

1> if this procedure is triggered due to fulfilment of LTM cell switch execution conditions:

2> if more than one LTM candidate configuration has triggered this procedure:

3> select one of the LTM candidate configurations as the selected cell for the LTM cell switch execution;

2> else:

3> consider the triggered LTM candidate configurations as the selected cell for the LTM cell switch execution;

**[Comments]**:

X152

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X152 | MOB | 1 | UE behaviours when *ltm-NoSecurityChangeID* = *ltm-ServingCellNoSecurityChangeID* is missing. | R2-25xxxxx | Xiaomi (Yi Xiong) |  | V006 | ToDo |

 **[Description]**: In LTM cell switch execution section 5.3.5.18.6:

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*:

…………………unused part, skip…………………

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

…………………unused part, skip…………………

Based on the above spec, the UE behaviours when the value of *ltm-NoSecurityChangeID* is not equal to the value of *ltm-ServingCellNoSecurityChange* and the UE behaviours when the *ltm-NoSecurityChangeID* is not configured and *ltm-ServingCellNoSecurityChangeID* is not stored have been captured in the spec.

But the UE behaviours when the value of *ltm-NoSecurityChangeID* is equal to the value of *ltm-ServingCellNoSecurityChange* is missing, suggest to add associated wording.

**[Proposed Change]**: Based on the above description, we suggest the following change:

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*:

…………………unused part, skip…………………

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

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 equal to the value of *ltm-ServingCellNoSecurityChange* within *VarLTM-ServingCellNoSecurityChange*:

…………………unused part, skip…………………

**[Comments]**:

X153

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X153 | MOB | 1 | Incorrect UE behaviours when the value of *ltm-NoResetID* is equal to the value of *ltm-ServingCellNoResetID*. | R2-25xxxxx | Xiaomi (Yi Xiong) |  | V006 | ToDo |

 **[Description]**: In LTM cell switch execution section 5.3.5.18.6:

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

1> if the *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC* indicated by lower layers or for the selected cell in accordance with 5.3.5.18.x or 5.3.7.3 does not contain the field *ltm-NoResetID* and if the UE does not have any value stored of *ltm-ServingCellNoResetID* within *VarLTM-ServingCellNoResetID*; or

1> if the value of field *ltm-NoResetID* contained within the *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC* indicated by lower layers or for the selected cell in accordance with 5.3.5.18.x or 5.3.7.3 is not equal to the value of *ltm-ServingCellNoResetID* within *VarLTM-ServingCellNoResetID*:

2> for each *logicalChannelIdentity* and *logicalChannelIdentityExt* that is part of the current UE configuration for the cell group for which the LTM cell switch procedure is triggered:

3> if *servedRadioBearer* is set to *drb-Identity*:

4> after the end of this procedure, re-establish the corresponding RLC entity as specified in TS 38.322 [4], after applying the LTM configuration in *ltm-CandidateConfig* within the *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC*;

2> for each *bh-LogicalChannelIdentity* that is part of the current UE configuration for the cell group for which the LTM cell switch procedure is triggered:

3> after the end of this procedure, re-establish the corresponding RLC entity as specified in TS 38.322 [4], after applying the LTM configuration in *ltm-CandidateConfig* within the LTM-Candidate IE in *ltm-Config* or *ltm-ConfigNRDC*;

2> for each *drb-Identity* value that is part of the current UE configuration:

3> if this DRB is an AM DRB:

4> after the end of this procedure, trigger the PDCP entity of this DRB to perform data recovery as specified in TS 38.323 [5], after applying the LTM configuration in *ltm-CandidateConfig* within *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC*;

Based on the above procedure, when the *ltm-NoSecurityChangeID* is not configured and *ltm-ServingCellNoSecurityChangeID* is not stored, the UE shall perform RLC re-establishment and PDCP data recovery (AM DRB). In other words, for this case, even if the value of *ltm-NoResetID* is equal to the value of *ltm-ServingCellNoResetID*, the UE also needs to perform RLC re-establishment and PDCP data recovery (AM DRB), which is inconsistent with the principle of Rel-18 LTM.

Hence, we think the wording for whether to perform RLC re-establishment and PDCP data recovery (AM DRB) based on the Rel-18 ID (*ltm-NoResetID* and *ltm-ServingCellNoResetID*) shall be the next bullet of “1> else if the field *ltm-NoSecurityChangeID* …… *VarLTM-ServingCellNoSecurityChangeID*; or”, rather than in the same layer bullet.

In addition, whether the Rel-19 IDs are configured or not and whether the Rel-19 ID(s) are same or different, the Rel-18 ID of serving cell (*ltm-ServingCellNoResetID*) shall be the value of Rel-18 ID in candidate configuration associated with current serving cell (target cell). Hence, the wording for the update of Rel-18 ID of serving cell shall be the first bullet.

**[Proposed Change]**: Based on the above description, we suggest the following change:

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*:

2> if the *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC* indicated by lower layers or for the selected cell in accordance with 5.3.5.18.x or 5.3.7.3 does not contain the field *ltm-NoResetID* and if the UE does not have any value stored of *ltm-ServingCellNoResetID* within *VarLTM-ServingCellNoResetID*; or

2> if the value of field *ltm-NoResetID* contained within the *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC* indicated by lower layers or for the selected cell in accordance with 5.3.5.18.x or 5.3.7.3 is not equal to the value of *ltm-ServingCellNoResetID* within *VarLTM-ServingCellNoResetID*:

3> for each *logicalChannelIdentity* and *logicalChannelIdentityExt* that is part of the current UE configuration for the cell group for which the LTM cell switch procedure is triggered:

4> if servedRadioBearer is set to drb-Identity:

5> after the end of this procedure, re-establish the corresponding RLC entity as specified in TS 38.322 [4], after applying the LTM configuration in *ltm-CandidateConfig* within the *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC*;

3> for each *bh-LogicalChannelIdentity* that is part of the current UE configuration for the cell group for which the LTM cell switch procedure is triggered:

4> after the end of this procedure, re-establish the corresponding RLC entity as specified in TS 38.322 [4], after applying the LTM configuration in *ltm-CandidateConfig* within the LTM-Candidate IE in *ltm-Config* or *ltm-ConfigNRDC*;

3> for each *drb-Identity* value that is part of the current UE configuration:

4> if this DRB is an AM DRB:

5> after the end of this procedure, trigger the PDCP entity of this DRB to perform data recovery as specified in TS 38.323 [5], after applying the LTM configuration in *ltm-CandidateConfig* within *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC*;

1> if the value of field *ltm-NoResetID* contained within the *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC* indicated by lower layers or for the selected cell in accordance with 5.3.5.18.x or 5.3.7.3 is not equal to the value of *ltm-ServingCellNoResetID* within *VarLTM-ServingCellNoResetID*:

2> replace the value of *ltm-ServingCellNoResetID* in *VarLTM-ServingCellNoResetID* with the value of *ltm-NoResetID* in the *LTM-Candidate* in *ltm-Config* or *ltm-ConfigNRDC* indicated by lower layers or for the selected cell in accordance with 5.3.5.18.x or 5.3.7.3;

**[Comments]**:

X154

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X154 | MOB | 1 | Incorrect accordance section of the selected cell for CLTM |  | Xiaomi (Yi Xiong) |  | V006 | ToDo |

 **[Description]**: In LTM cell switch conditions evalution based on L3 measurements section 5.3.5.18.x, the triggered candidate cell, whose condition is met, is not considered as the selected cell.

In LTM cell switch execution section 5.3.5.18.6, the selected cell is determined by the bullet 2> , as shown below:

1> if this procedure is triggered due to fulfilment of LTM cell switch execution conditions:

2> if more than one LTM candidate configuration has triggered this procedure:

3> select one of the LTM candidate configurations as the selected cell for the LTM cell switch execution;

Hence, in section 5.3.5.18.6, the UE can consider one of the LTM candidate configurations as the selected cell for the LTM cell switch execution. Hence, we suggest to change the accordance section from “5.3.5.18.x” to “5.3.5.18.6”

**[Proposed Change]**: Based on the above description, we suggest the following change:

the selected cell in accordance with 5.3.5.18.6 or 5.3.7.3

**[Comments]**:

X155

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X155 | MOB | 1 | Perform the subsequent CLTM evaluation after LTM Cell switch triggered based on the indication from lower layers. | R2-25xxxxx | Xiaomi (Yi Xiong) |  | V006 | ToDo |

 **[Description]**: In LTM cell switch execution section 5.3.5.18.6, the UE only perform subsequent CLTM evaluation for the selected LTM candidate configuration, as shown below:

1> if *ltm-ExecutionCondition* is configured within the *LTM-Candidate* IE for the selected LTM candidate configuration:

2> if the field *l3-Conditions* is included within *ltm-ExecutionCondition*:

3> perform the LTM cell switch conditions evaluation based on L3 measurements as specified in 5.3.5.18.x according to the received *ltm-ExecutionCondition* once this procedure is completed;

2> else if the field *l1-Conditions* is included within *ltm-ExecutionCondition*:

3> request lower layers to initiate the LTM cell switch conditions evaluation based on L1 measurements according to the received field *ltm-ExecutionCondition* once this procedure is completed.

RAN2 has agreed “Network can send an LTM Cell Switch Command MAC CE indicating a CLTM candidate configuration (no specification change)”. So, after the CLTM candidate configuration is triggered by LTM Cell Switch Command MAC CE, the UE shall also perform subsequent CLTM evaluation. But in current spec, the LTM candidate configuration indicated by lower layers has not been included in the first bullet.

**[Proposed Change]**: Based on the above description, we suggest the following change:

1> if *ltm-ExecutionCondition* is configured within the *LTM-Candidate* IE for the LTM candidate configuration either indicated by lower layers or for the selected cell:

2> if the field *l3-Conditions* is included within *ltm-ExecutionCondition*:

3> perform the LTM cell switch conditions evaluation based on L3 measurements as specified in 5.3.5.18.x according to the received *ltm-ExecutionCondition* once this procedure is completed;

2> else if the field *l1-Conditions* is included within *ltm-ExecutionCondition*:

3> request lower layers to initiate the LTM cell switch conditions evaluation based on L1 measurements according to the received field *ltm-ExecutionCondition* once this procedure is completed.

**[Comments]**: