NES Comments file

Template:

# O004

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| O004 | NES, SLRelay | 1 | Applicability of PO bundling to SL Relay | R2-25xxxxx | OPPO (Qianxi) |  | V002 | ToDo |

**[Description]**: It is not clear whether the paging adapation (i.e., PO bundling) feature can be applied to SL Relay UE (first/last Relay) and Remote UE.

**[Proposed Change]**: R2 discuss and conclude the applicability of paging adapation (i.e., PO bundling) feature to SL Relay UE (first/last Relay) and Remote UE or not.

**[Comments]**:

# O005

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| O005 | NES, LPWUS | 1 | Applicability of PO bundling to LP-SS | R2-25xxxxx | OPPO (Qianxi) |  | V002 | ToDo |

**[Description]**: It is not clear whether the paging adapation (i.e., PO bundling) feature can be enabled together with LP-SS feature or not.

**[Proposed Change]**: R2 discuss and conclude the applicability of co-configuring paging adaptation and LP-SS feature.

**[Comments]**:

# X200

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X200 | NES | 1 | SMTC handling for OD-SSB | R2-25xxxxx | Xiaomi (Li Zhao) |  | V003 | ToDo |

**[Description]**: The existing text in 5.5.2.10 still needs to be further polished to reflect the mapping between the SMTC and the OD-SSB periodicity

**[Proposed Change]**: RAN2 to discuss and agree the following text.

“If *smtcxlist* is present, when OD-SSB is activated and the serving cell is activated, the UE shall setup SMTC according to the first configured field in *smtcxlist* for serving cell measurements on the corresponding configured measurement object as specified in 5.5.3.1, ifthe SS/PBCH block reception periodicity is configured as the first OD-SSB periodicity value of *od-ssb-Periodicity-r19*; the UE shall setup SMTC according to the second configured field in *smtcxlist* for serving cell measurements on the corresponding configured measurement object as specified in 5.5.3.1,if the SS/PBCH block reception periodicity is configured as the second OD-SSB periodicity value of *od-ssb-Periodicity* and so on”

**[Comments]**: [OPPO] It is not super clear to us how to handle this. Specifically: 1) If there is a periodicity for which there is no corresponding OD-SSB periodicity, following this rule, the SMTC has to be configured within smtcxlist (e.g., if there are OD-SSB configuration for ms5 and ms20, but there is no OD-SSB configuration for ms10), leading to unnecessary signaling overhead?

[Sharp]: Agree with the comments from OPPO. We think for simplicity, configured SMTC number in smtcxlist can be same as configured OD-SSB periodicity value number. For example, 4 OD-SSB configurations with 5ms OD-SSB periodicity, and 4 OD-SSB configurations with 20ms OD-SSB periodicity, then there are 2 OD-SSB periodicity values and 2 SMTC in smtcxlist. The potential change is as below:

If *smtcxlist* is present, when OD-SSB is activated and the serving cell is activated, the UE shall setup SMTC according to the first configured field in *smtcxlist* for serving cell measurements on the corresponding configured measurement object as specified in 5.5.3.1, ifthe SS/PBCH block reception periodicity is configured as the first value among OD-SSB periodicity value(s) in OD-SSB configuration(s) for the serving cell

# X201

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X201 | NES | 1 | Serving cell MO handling for OD-SSB | R2-25xxxxx | Xiaomi (Li Zhao) |  | V003 | ToDo |

**[Description]**: The existing text in 5.5.3.1 still needs to be further polished to make it more readable and solve the conflict between the level 2 “*absoluteFrequencySSB* is not configured” and level 3 “and *absoluteFrequencySSB* is configured in *ServingCellConfigCommon*”

**[Proposed Change]**: RAN2 to discuss and agree the following text.

The UE shall:

1> whenever the UE has a *measConfig*, perform RSRP and RSRQ measurements for each serving cell for which *servingCellMO* is configured as follows:

2> if the *OD-SSB-Config* is not configured:

3> if the *reportConfig* associated with at least one *measId* included in the *measIdList* within *VarMeasConfig* contains an *rsType* set to *ssb* and *ssb-ConfigMobility* is configured in the *measObject* indicated by the *servingCellMO*, and *absoluteFrequencySSB* is configured in *ServingCellConfigCommon*:

4> if the *reportConfig* contains a *reportQuantityRS-Indexes* and *maxNrofRS-IndexesToReport*:

5> derive layer 3 filtered RSRP and RSRQ per beam for the serving cell based on SS/PBCH block, as described in 5.5.3.3a;

4> derive serving cell measurement results based on SS/PBCH block, as described in 5.5.3.3;

3> if the *reportConfig* associated with at least one *measId* included in the *measIdList* within *VarMeasConfig* contains an *rsType* set to *csi-rs* and *CSI-RS-ResourceConfigMobility* is configured in the *measObject* indicated by the *servingCellMO*:

4> if the reportConfig contains a reportQuantityRS-Indexes and maxNrofRS-IndexesToReport:

5> derive layer 3 filtered RSRP and RSRQ per beam for the serving cell based on CSI-RS, as described in 5.5.3.3a;

4> derive serving cell measurement results based on CSI-RS, as described in 5.5.3.3;

2> if the *OD-SSB-Config* and *absoluteFrequencySSB* are configured and *od-ssb-absoluteFrequency* is not configured, or:

2> if the *OD-SSB-Config* is configured, *absoluteFrequencySSB* is not configured and OD-SSB transmission is activated, or:

2> if the *OD-SSB-Config*, *absoluteFrequencySSB* and *od-ssb-absoluteFrequency* are configured and OD-SSB transmission is not activated:

3> if the *reportConfig* associated with at least one *measId* included in the *measIdList* within *VarMeasConfig* contains an *rsType* set to *ssb* and *ssb-ConfigMobility* is configured in the *measObject* indicated by the *servingCellMO*:

4> if the *reportConfig* contains a *reportQuantityRS-Indexes* and *maxNrofRS-IndexesToReport*:

5> derive layer 3 filtered RSRP and RSRQ per beam for the serving cell based on SS/PBCH block, as described in 5.5.3.3a;

4> derive serving cell measurement results based on SS/PBCH block, as described in 5.5.3.3;

3> if the *reportConfig* associated with at least one *measId* included in the *measIdList* within *VarMeasConfig* contains an *rsType* set to *csi-rs* and *CSI-RS-ResourceConfigMobility* is configured in the *measObject* indicated by the *servingCellMO*:

4> if the reportConfig contains a reportQuantityRS-Indexes and maxNrofRS-IndexesToReport:

5> derive layer 3 filtered RSRP and RSRQ per beam for the serving cell based on CSI-RS, as described in 5.5.3.3a;

4> derive serving cell measurement results based on CSI-RS, as described in 5.5.3.3;

2> else if the *OD-SSB-Config*, *absoluteFrequencySSB* and *od-ssb-absoluteFrequency* are configured and OD-SSB transmission is activated:

3> if the *reportConfig* associated with at least one *measId* included in the *measIdList* within *VarMeasConfig* contains an *rsType* set to *ssb* and *ssb-ConfigMobility* is configured in the *measObject* indicated by the *servingCellMO-OD*:

4> if the *reportConfig* associated with at least one *measId* included in the *measIdList* within *VarMeasConfig* contains a *reportQuantityRS-Indexes* and *maxNrofRS-IndexesToReport* and contains an *rsType* set to *ssb*:

5> derive layer 3 filtered RSRP and RSRQ per beam for the serving cell based on SS/PBCH block, as described in 5.5.3.3a;

4> derive serving cell measurement results based on SS/PBCH block, as described in 5.5.3.3;

3> if the *reportConfig* associated with at least one *measId* included in the *measIdList* within *VarMeasConfig* contains an *rsType* set to *csi-rs* and *CSI-RS-ResourceConfigMobility* is configured in the *measObject* indicated by the *servingCellMO-OD*:

4> if the *reportConfig* associated with at least one *measId* included in the *measIdList* within *VarMeasConfig* contains a *reportQuantityRS-Indexes* and *maxNrofRS-IndexesToReport* and contains an *rsType* set to *csi-rs*:

5> derive layer 3 filtered RSRP and RSRQ per beam for the serving cell based on CSI-RS, as described in 5.5.3.3a;

4> derive serving cell measurement results based on CSI-RS, as described in 5.5.3.3;

1> for each serving cell for which *servingCellMO* is configured, if the *reportConfig* associated with at least one *measId* included in the *measIdList* within *VarMeasConfig* contains SINR as trigger quantity and/or reporting quantity:

2> if the *OD-SSB-Config* is not configured:

3> if the *reportConfig* contains *rsType* set to *ssb* and *ssb-ConfigMobility* is configured in the *servingCellMO*, and *absoluteFrequencySSB* is configured in *ServingCellConfigCommon*:

4> if the *reportConfig* contains a *reportQuantityRS-Indexes* and *maxNrofRS-IndexesToReport*:

5> derive layer 3 filtered SINR per beam for the serving cell based on SS/PBCH block, as described in 5.5.3.3a;

4> derive serving cell SINR based on SS/PBCH block, as described in 5.5.3.3;

3> if the *reportConfig* contains *rsType* set to *csi-rs* and *CSI-RS-ResourceConfigMobility* is configured in the *servingCellMO*:

4> if the *reportConfig* contains a *reportQuantityRS-Indexes* and *maxNrofRS-IndexesToReport*:

5> derive layer 3 filtered SINR per beam for the serving cell based on CSI-RS, as described in 5.5.3.3a;

4> derive serving cell SINR based on CSI-RS, as described in 5.5.3.3;

2> if the *OD-SSB-Config* and *absoluteFrequencySSB* are configured and *od-ssb-absoluteFrequency* is not configured, or:

2> if the *OD-SSB-Config* is configured, *absoluteFrequencySSB* is not configured and OD-SSB transmission is activated, or:

2> if the *OD-SSB-Config*, *absoluteFrequencySSB* and *od-ssb-absoluteFrequency* are configured and OD-SSB transmission is not activated:

3> if the *reportConfig* contains *rsType* set to *ssb* and *ssb-ConfigMobility* is configured in the *servingCellMO*:

4> if the *reportConfig* contains a *reportQuantityRS-Indexes* and *maxNrofRS-IndexesToReport*:

5> derive layer 3 filtered SINR per beam for the serving cell based on SS/PBCH block, as described in 5.5.3.3a;

4> derive serving cell SINR based on SS/PBCH block, as described in 5.5.3.3;

3> if the *reportConfig* contains *rsType* set to *csi-rs* and *CSI-RS-ResourceConfigMobility* is configured in the *servingCellMO*:

4> if the *reportConfig* contains a *reportQuantityRS-Indexes* and *maxNrofRS-IndexesToReport*:

5> derive layer 3 filtered SINR per beam for the serving cell based on CSI-RS, as described in 5.5.3.3a;

4> derive serving cell SINR based on CSI-RS, as described in 5.5.3.3;

2> else if the *OD-SSB-Config*, *absoluteFrequencySSB* and *od-ssb-absoluteFrequency* are configured and OD-SSB transmission is activated:

3> if the *reportConfig* contains *rsType* set to *ssb* and *ssb-ConfigMobility* is configured in the *servingCellMO-OD*:

4> if the *reportConfig* contains a *reportQuantityRS-Indexes* and *maxNrofRS-IndexesToReport*:

5> derive layer 3 filtered SINR per beam for the serving cell based on SS/PBCH block, as described in 5.5.3.3a;

4> derive serving cell SINR based on SS/PBCH block, as described in 5.5.3.3;

3> if the *reportConfig* contains *rsType* set to *csi-rs* and *CSI-RS-ResourceConfigMobility* is configured in the *servingCellMO-OD*:

4> if the *reportConfig* contains a *reportQuantityRS-Indexes* and *maxNrofRS-IndexesToReport*:

5> derive layer 3 filtered SINR per beam for the serving cell based on CSI-RS, as described in 5.5.3.3a;

4> derive serving cell SINR based on CSI-RS, as described in 5.5.3.3;

**[Comments]**: [OPPO] if “and *absoluteFrequencySSB* is configured in *ServingCellConfigCommon*” is the main concern, it seems we should not relocate the bullets for “*absoluteFrequencySSB* are configured”, but just the one of “if the *OD-SSB-Config* is configured, *absoluteFrequencySSB* is not configured and OD-SSB transmission is activated” should be relocated, but that should rely on *servingCellMO-OD* so should combine with the branch of *servingCellMO-OD*? [OPPO2] After offline with Xiaomi, it seems the intention was to mandate using servingCellMO (rather than servingCellMO-OD) for the SSB-less case, i.e., does not pursue the case where the *ssbFrequency* in *servingCellMO* is different from *od-ssb-absoluteFrequency*. If so, OK to rely on *servingCellMO* for all SSB-less case, but good to clarify it using R2 conclusion to make it more explicit.

[Sharp]: “*absoluteFrequencySSB* is configured in *ServingCellConfigCommon*” and other conditions can be moved to the lower level to avoid too many duplicate texts:

3> if the *reportConfig* associated with at least one *measId* included in the *measIdList* within *VarMeasConfig* contains an *rsType* set to *ssb* and *ssb-ConfigMobility* is configured in the *measObject* indicated by the *servingCellMO*, and:

4> if the *OD-SSB-Config* is not configured and *absoluteFrequencySSB* is configured in *ServingCellConfigCommon*, or:

4> if the *OD-SSB-Config* and *absoluteFrequencySSB* are configured and *od-ssb-absoluteFrequency* is not configured, or:

4> if the *OD-SSB-Config* is configured, *absoluteFrequencySSB* is not configured and OD-SSB transmission is activated, or:

4> if the *OD-SSB-Config*, *absoluteFrequencySSB* and *od-ssb-absoluteFrequency* are configured and OD-SSB transmission is not activated:

*<Legacy behavior>*

# X202

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X202 | NES | 1 | Classify parameters of OD-SIB1 | R2-25xxxxx | Xiaomi (Li Zhao) |  | V003 | ToDo |

**[Description]**: According to the parameter list from RAN1, some parameters related to OD-SIB1 should be configured per od-sib1-Config instead of per SIB1-RequestConfig, e.g., sib1-rsrp-ThresholdSSB-r19, locationAndBandwidth-r19, absoluteFrequencyPointA-r19, ul-FrequencyBandList-r19, ul-SubCarrierSpacing-r19, etc.

**[Proposed Change]**: RAN2 to discuss to move those parameters not related to SIB1-RequestConfig from SIB1-RequestConfig to od-sib1-Config.

**[Comments]**:

# X203

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X203 | NES | 1 | Using NUL/SUL for OD-SIB1 request | R2-25xxxxx | Xiaomi (Haitao) |  | V002 | ToDo |

**[Description]**: Description on OD-SIB1 request for NUL and SUL repeat quite much and make spec messy.

**[Proposed Change]**: merge into a single procedure text for OD-SIB1 request on NUL and SUL.

**[Comments]**:

# O006

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| O006 | NES | 2 | How to handle the SSB-less case | R2-25xxxxx | OPPO (Qianxi) |  | V004 | ToDo |

**[Description]**: “This field is mandatory present if *od-ssb-absoluteFrequency* indicates different frequency than *absoluteFrequencySSB* of the serving cell.” It is not clear how to handle the case where *absoluteFrequencySSB* is not provided, i.e., SSB-less case.

**[Proposed Change]**: Extend the condition of servingCellMO-OD as “This field is mandatory present if od-ssb-absoluteFrequency indicates different frequency than ssbFrequency of the servingCellMO” to cover SSB-less SCell.

**[Comments]**:

# O007

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| O007 | NES | 2 | Optionality of fields for offset |  | OPPO (Qianxi) |  | V004 | ToDo |

**[Description]**: For the two fields *od-ssb-halfFrameIndex* and *od-ssb-SFN-Offset*, since it says “If the field is absent, the UE applies the value 0.” And since R1 RRC list does not say it has to be mandatory present, we wonder whether it is necessary to restrict that “The field is mandatory present, when *absoluteFrequencySSB* of the serving cell is absent.”

**[Proposed Change]**: We are fine with either way, yet good to have R2 conclusion on it since it was not from R1 RRC parameter list directly.

**[Comments]**:

# J001

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| J001 | NES | 1 | Align smtc between MCG and SCG |  | Sharp (LIU Lei) |  | V00x | ToDo |

**[Description]**: When OD-SSB is activated, smtcx is used to setup SMTC and when adapt SSB is activated, smtcy is used to setup SMTC, i.e., *smtc1* is replaced. Thus *smtcx/smtcy* configured by the MCG should be aligned with *smtc1* configured by SCG for the same *ssbFrequency*.

**[Proposed Change]**: The text proposal is as below:

- to ensure that, if a measurement object associated with the MCG has the same *ssbFrequency* as a measurement object associated with the SCG:

- for that *ssbFrequency*, the measurement window according to the *smtc1/smtcx/smtcy* configured by the MCG includes the measurement window according to the *smtc1* configured by the SCG, or vice-versa, with an accuracy of the maximum receive timing difference specified in TS 38.133 [14].

**[Comments]:**

# J002

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| J002 | NES | 1 | Update field description of *absoluteFrequencySSB* |  | Sharp (LIU Lei) |  | V00x | ToDo |

**[Description]**: If *od-ssb* is configured, the field *od-ssb-absoluteFrequency-r19* is mandatory present when *absoluteFrequencySSB* of the serving cell is absent, and it makes the UE can obtain timing on this SCell. Thus, the field description of *absoluteFrequencySSB* needs to be updated.

**[Proposed Change]**: The text proposal is as below:

***absoluteFrequencySSB***

Frequency of the SSB to be used for this serving cell. SSB related parameters (e.g. SSB index) provided for a serving cell refer to this SSB frequency unless mentioned otherwise. The CD-SSB of the PCell is always on the sync raster. Frequencies are considered to be on the sync raster if they are also identifiable with a GSCN value (see TS 38.101-1 [15] or TS 38.101-5 [75]). If the field is absent, the SSB related parameters should be absent, e.g. *ssb-PositionsInBurst*, *ssb-periodicityServingCell* and *subcarrierSpacing* in *ServingCellConfigCommon* IE. If the field is absent and *od-ssb* is not configured for this serving cell, the UE obtains timing reference from the intra-band SpCell or intra-band SCell if applicable as described in TS 38.213 [13], clause 4.1, or from the SpCell or an SCell indicated by *referenceCell,* or from the reference serving cell defined in TS 38.133 [14]. This is supported in case the SCell for which the UE obtains the timing reference is in the same or different frequency band as the cell (i.e. the SpCell or the SCell, respectively) from which the UE obtains the timing reference.

**[Comments]:**

Instructions:

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