**3GPP TSG RAN WG1 Meeting #114 R1-230xxxx**

Toulouse, France, August 21 – 25, 2023

**Agenda item: 9.17**

**Source: Nokia, Nokia Shanghai Bell**

**Title: Summary on email discussion on NR\_Mob\_enh2**

**Document for: Discussion and Decision**

# 1 Introduction

This document contains company observations on the draft CR to 38.214 for the Rel18 NR\_Mob\_end2.

First checkpoint for this discussion: **September 5th, 6:00am UTC**!

# 2 Discussion – first round

The comments in this section are based on the version 0 of the draft CR

 .

|  |  |  |
| --- | --- | --- |
| Company | Comments | Editor reply/Notes |
| vivo | For section 5.2.1.4.2, the definition of SSBRI is based on the order of SSBs included in the *LTM-csi-SSB-ResourceList*. Therefore, SSBRI is unique value for a report. It seems “different” for SSBRI for each reported cell is not needed:If a UE is configured with a [*LTM-CSI-ReportConfig*],- the UE shall report in a single reporting instance *[noOfReportedRSPerCell] SSBRI* for each of the *[noOfReportedCells]* cells, for each report setting.- if the UE is configured with [*SpCellInclusion* set to ‘enabled’], the UE shall report in a single reporting instance [*noOfReportedRSPerCell SSBRI* for the current SpCell and each of the *nrofReportedCells -1* cells], for each report setting. - the UE shall report SSBRI, where SSBRI *k* (*k* ≥ 0) corresponds to the configured (*k*+1)-th entry of the associated [*LTM-csi-SSB-ResourceList*] in the corresponding[*LTM-CSI-SSB-ResourceSet*]*.* |  |
| ZTE | **Clause 5.2.1.1 Reporting settings**Comments for the following paragragh are as below:

|  |
| --- |
| Each Reporting Setting [*LTM-CSI-ReportConfig]* is associated with a [*LTM-CSI-ResourceConfig*] for channel measurement and contains the parameters(s) for time-domain behavior, number of quantities to be reported by the UE such as [*noOfReportedCells*]*,* and [*noOfReportedRSPerCell*]. |

* Comment #1: It is unclear for us to wording of “number of” in sentence “number of quantities to be reported by the UE such as [*noOfReportedCells*]*,* and [*noOfReportedRSPerCell*]”. From our perspective, similar legacy wording can be used for LTM, like “.....the CSI-related quantities to be reported by the UE such as L1-RSRP, SSBRI (SSB Resource Indicator)”. As for the information on the reported content (such as noOfReportedCells, noOfReportedRSPerCell, SpCellInclusion that has been included in RRC list agreed in RAN1), it can be reflected in Clause 5.2.1.4.2 Report Quantity Configurations and 5.2.1.4.3 L1-RSRP Reporting.

|  |  |  |  |
| --- | --- | --- | --- |
| CSI-ReportConfig | LTM-ReportContent | This IE defines the content of the LTM measurement report | SEQUENCE {noOfReportedCells, noOfReportedRSPerCell,SpCellInclusion}  |

  **Proposed change:**

|  |
| --- |
| Each Reporting Setting [*LTM-CSI-ReportConfig]* is associated with a [*LTM-CSI-ResourceConfig*] for channel measurement and contains the parameters(s) for time-domain behavior, ~~number of~~ quantities to be reported by the UE such as ~~[~~*~~noOfReportedCells~~*~~]~~*~~,~~* ~~and [~~*~~noOfReportedRSPerCell~~*~~]~~ L1-RSRP, SSBRI (SSB Resource Indicator). |

* Comment #2: In order to clarify relationship between “time-domain behavior” for the first change of current clause and “[*reportConfigType]*” for the change modified in last post-meeting and align with wording and style of other places, the following change can be considered:

  **Proposed change:**

|  |
| --- |
| The time domain behavior of  ~~[~~*~~reportConfigType]~~* ~~in~~ *[LTM-CSI-ReportConfig]* is indicated by the higher layer parameter [*reportConfigType]*  and can be set to 'aperiodic', 'semiPersistentOnPUCCH', 'semiPersistentOnPUSCH', or 'periodic'. For 'periodic' and 'semiPersistentOnPUCCH'/'semiPersistentOnPUSCH' CSI reporting, the configured periodicity and slot offset applies in the numerology of the UL BWP in which the CSI report is configured to be transmitted on. |

**Clause 5.2.1.4.2 Report Quantity Configurations**Comments for the following paragragh are as below:

|  |
| --- |
| If a UE is configured with a [*LTM-CSI-ReportConfig*],- the UE shall report in a single reporting instance *[noOfReportedRSPerCell] different SSBRI* for each of the *[noOfReportedCells]* cells, for each report setting.- if the UE is configured with [*SpCellInclusion* set to ‘enabled’], the UE shall report in a single reporting instance [*noOfReportedRSPerCell different SSBRI* for the current SpCell and each of the *nrofReportedCells -1* cells], for each report setting. - the UE shall report SSBRI, where SSBRI *k* (*k* ≥ 0) corresponds to the configured (*k*+1)-th entry of the associated [*LTM-csi-SSB-ResourceList*] in the corresponding[*LTM-CSI-SSB-ResourceSet*]*.* |

* Comment #3: Link relationship between “SSB index” given by [*LTM-csi-SSB-ResourceList*] and “PCI index” given by [*LTM-CandidateId-list*] is not reflected in the current spec since “PCI index” given by [*LTM-CandidateId-list*] may be an optional configuration.
* Comment #4: “where SSBRI *k* (*k* ≥ 0) corresponds to the configured (*k*+1)-th entry of the associated [*LTM-csi-SSB-ResourceList*] in the corresponding[*LTM-CSI-SSB-ResourceSet*]” is shared for “the UE shall report in a single reporting instance *[noOfReportedRSPerCell] different SSBRI* for each of the *[noOfReportedCells]* cells, for each report setting.” and “if the UE is configured with [*SpCellInclusion* set to ‘enabled’], the UE shall report in a single reporting instance [*noOfReportedRSPerCell different SSBRI* for the current SpCell and each of the *nrofReportedCells -1* cells], for each report setting.”

Thus, according to the above comments, the following change is proposed for reference: **Proposed change:**

|  |
| --- |
| If a UE is configured with a [*LTM-CSI-ReportConfig*],- ~~the UE shall report in a single reporting instance~~ *~~[noOfReportedRSPerCell] different SSBRI~~* ~~for each of the~~ *~~[noOfReportedCells]~~* ~~cells, for each report setting.~~- if the UE is configured with [*SpCellInclusion* set to ‘enabled’], the UE shall report in a single reporting instance [*noOfReportedRSPerCell different SSBRI* for the current SpCell and each of the *nrofReportedCells -1* cells], for each report setting.Otherwise, the UE shall report in a single reporting instance *[noOfReportedRSPerCell] different SSBRI* for each of the *[noOfReportedCells]* cells, for each report setting.- ~~the UE shall report SSBRI,~~ where SSBRI *k* (*k* ≥ 0) corresponds to the configured (*k*+1)-th entry of the associated [*LTM-csi-SSB-ResourceList*] in the corresponding[*LTM-CSI-SSB-ResourceSet*]*.*- if the UE is configured with the higher layer parameter [LTM-CandidateId-list], SSB indices given by [*LTM-csi-SSB-ResourceList*]) are associated with PCI indices referring to the PCI of the serving cell and PCI(s) different from the PCI of the serving cell within the set of PCIs configured.  |

 |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |