**3GPP TSG-RAN3 Meeting # 114-e *R3-21xxxx***

**1st - 11th November 2021**

**Agenda Item: 31.1.6**

**Source: Ericsson**

**Title: TP to previously endorsed R3-213861**

**Document for: Other**

TP to R3-213861 endorsed TEI CR

**START OF CHANGES**

9.2.98 NR Neighbour Information

This IE contains cell configuration information of NR cells that a neighbour node may need for the X2 AP interface.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| **NR** **Neighbour Information** |  | *1 .. <maxnoofNRNeighbours>* |  |  | – |  |
| >**NR Neighbour Information Item** |  |  |  |  | – |  |
|  >>NRPCI | M |  | INTEGER (0..1007) | NR Physical Cell ID | – |  |
| >>NR CGI | M |  | 9.2.111 |  | – |  |
| >>5GS-TAC | O |  | OCTET STRING (3) | Broadcast 5GS Tracking Area Code | – |  |
| >>Configured TAC | O |  | OCTET STRING (2) | This is the TAC configured in the en-gNB, different from the 5GS TAC broadcast in the NR cell and enables application of Roaming and Access Restrictions for EN-DC as specified in TS 37.340 [32]. | – |  |
| >>Measurement Timing *Configuration* | M |  | OCTET STRING | Contains the MeasurementTimingConfiguration inter-node message for the neighbour cell, as defined in TS 38.331 [31]. | – |  |
| >>CHOICE *NR-Neighbour-Mode-Info* | M |  |  |  | – |  |
| >>>*FDD* |  |  |  |  |  |  |
| >>>>**FDD Info** |  | *1* |  |  | – |  |
| >>>>>UL ARFCNFreqInfo | M |  | NR ARFCN Frequency Info9.2.106 |  | – |  |
| >>>>>DL ARFCNFreqInfo | M |  | NR ARFCN Frequency Info9.2.106 |  | – |  |
| >>>*TDD* |  |  |  |  |  |  |
| >>>>**TDD Info** |  | *1* |  |  | – |  |
| >>>>>ARFCNNRFreqInfo | M |  | NR ARFCN Frequency Info9.2.106 |  | – |  |
| >>>>>Intended TDD DL-UL Configuration NR | O |  | OCTET STRING | Contains the *Intended TDD DL-UL Configuration NR* IE as defined in TS 38.423 [49]. | YES | ignore |
| >>CSI-RS Transmission Indication | O |  | ENUMERATED {activated, deactivated, ...} | This IE indicates the CSI-RS transmission status of the given cell.If the *Additional Measurement Timing Configuration List* IE is present in the *NR Neighbour Information* IE, this IE is ignored. | YES | ignore |
| **Additional Measurement Timing Configuration List** | O | *1 .. <maxnoofMTCItems>* |  |  | YES | ignore |
| >Measurement Timing Configuration Index | M |  | INTEGER (0..16) | “0” refers to the configuration contained in the Measurement Timing Configuration IE.Any value between “1” and “16” refers to a configuration within the *Additional* *Measurement Timing Configuration List* IE. | – |  |
| >CSI-RS MTC Configuration List | M | *1 .. <maxnoofCSIRSconfigurations>* |  | This list explicitly expresses the CSI-RS configurations contained in the MTC | – |  |
| >>CSI-RS Index | M |  | INTEGER (0..95) | Index of CSI-RS as in MTC | – |  |
| >>CSI-RS Status | M |  | ENUMERATED (activated, deactivated, …) | This IE indicates the CSI-RS transmission status of the configuration. | – |  |
| >>**CSI-RS Neighbour List** | O | *1 .. <maxnoofCSIRSneighbourCells>* |  | This list expresses the cells and CSI-RSs neighbouring the CSI-RS in the CSI-RS Index IE | – |  |
| >>>NR CGI | M |  | 9.2.111 |  | – |  |
| >>>**CSI-RS MTC Neighbour List** | O | *1 .. <maxnoofCSIRSneighbourCellsInMTC>* |  | This list expresses the CSI-RSs served by the CGI, which are neighbouring the CSI-RS of the neighbour cell | – |  |
| >>>> CSI-RS Index | M |  | INTEGER (0..95) |  | – |  |

|  |  |
| --- | --- |
| **Range bound** | **Explanation** |
| maxnoofNRNeighbours | Maximum no. of neighbour NR cells associated to a given served cell. Value is 1024. |
| maxnoofMTCItems | Maximum no. of measurement timing configurations associated with the neighbour cell. Value is 16. |
| maxnoofCSIRSconfigurations | Maximum number of CSI-RS configurations reported in the MTC. Value is 96 |
| maxnoofCSIRSneighbourCells | Maximum number of cells neighbouring a CSI-RS coverage area. Value is 16 |
| maxnoofCSIRSneighbourCellsInMTC | Maximum number of CSI-RS coverage areas neighbouring a specific CSI-RS coverage area. Value is 16 |

**NEXT CHANGE**

NRNeighbour-Information ::= SEQUENCE (SIZE (1.. maxofNRNeighbours))OF SEQUENCE {

 nrpCI NRPCI,

 nrCellID NRCGI,

 fiveGS-TAC FiveGS-TAC OPTIONAL,

 configured-TAC TAC OPTIONAL,

 measurementTimingConfiguration OCTET STRING,

 nRNeighbourModeInfo CHOICE {

 fdd FDD-InfoNeighbourServedNRCell-Information,

 tdd TDD-InfoNeighbourServedNRCell-Information,

 ...

 },

 iE-Extensions ProtocolExtensionContainer { {NRNeighbour-Information-ExtIEs} } OPTIONAL,

 ...

}

NRNeighbour-Information-ExtIEs X2AP-PROTOCOL-EXTENSION ::= {

 {ID id-CSI-RSTransmissionIndication CRITICALITY ignore EXTENSION EARFCNExtension PRESENCE optional}|

 { ID id-Additional-Measurement-Timing-Configuration-List CRITICALITY ignore EXTENSION Additional-Measurement-Timing-Configuration-List PRESENCE optional },

 ...

}

**END OF CHANGE**