#### 9.1.3.4 NG-RAN NODE CONFIGURATION UPDATE

This message is sent by a NG-RAN node to a neighbouring NG-RAN node to transfer updated information for an Xn-C interface instance.

Direction: NG-RAN node1 🡪 NG-RAN node2.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| Message Type | | M |  | 9.2.3.1 |  | YES | reject |
| TAI Support List | | O |  | 9.2.3.20 | List of supported TAs and associated characteristics. | GLOBAL | reject |
| CHOICE *Initiating NodeType* | | M |  |  |  | YES | ignore |
| *>gNB* | |  |  |  |  |  |  |
| >>Served Cells To Update NR | | O |  | 9.2.2.15 |  | YES | ignore |
| >>Cell Assistance Information NR | | O |  | 9.2.2.17 |  | YES | ignore |
| >>Cell Assistance Information E-UTRA | | O |  | 9.2.2.43 |  | YES | ignore |
| >>Enhanced Cell Assistance Information NR | | O |  | 9.2.2.x |  | YES | ignore |
| *>ng-eNB* | |  |  |  |  |  |  |
| >>Served Cells to Update E-UTRA | | O |  | 9.2.2.16 |  | YES | ignore |
| >>Cell Assistance Information NR | | O |  | 9.2.2.17 |  | YES | ignore |
| >>Cell Assistance Information E-UTRA | | O |  | 9.2.2.43 |  | YES | ignore |
| **TNLA To Add List** |  | | *0..1* |  |  | YES | ignore |
| **>TNLA To Add Item** |  | | *1..<maxnoofTNLAssociations>* |  |  | – |  |
| >>TNLA Transport Layer Information | M | |  | CP Transport Layer Information  9.2.3.31 | CP Transport Layer Information of NG-RAN node1 | – |  |
| >> TNL Association Usage | M | |  | 9.2.3.84 |  | – |  |
| **TNLA To Update List** |  | | *0..1* |  |  | YES | ignore |
| **>TNLA To Update Item** |  | | *1..<maxnoofTNLAssociations>* |  |  | – |  |
| >>TNLA Transport Layer Information | M | |  | CP Transport Layer Information  9.2.3.31 | CP Transport Layer Information of NG-RAN node1 | – |  |
| >> TNL Association Usage | O | |  | 9.2.3.84 |  | – |  |
| **TNLA To Remove List** |  | | *0..1* |  |  | YES | ignore |
| **>TNLA To Remove Item** |  | | *1..<maxnoofTNLAssociations>* |  |  | – |  |
| >>TNLA Transport Layer Information | M | |  | CP Transport Layer Information  9.2.3.31 | CP Transport Layer Information of NG-RAN node1 | – |  |
| Global NG-RAN Node ID | O | |  | 9.2.2.3 |  | YES | reject |
| AMF Region Information To Add | O | |  | AMF Region Information 9.2.3.83 | List of all added AMF Regions to which the NG-RAN node belongs. | YES | reject |
| AMF Region Information To Delete | O | |  | AMF Region Information 9.2.3.83 | List of all deleted AMF Regions to which the NG-RAN node belongs. | YES | reject |
| Interface Instance Indication | O | |  | 9.2.2.39 |  | YES | reject |
| TNL Configuration Info | O | |  | 9.2.3.96 |  | YES | ignore |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofTNLAssociations | Maximum numbers of TNL Associations between the NG RAN nodes. Value is 32. |

#### 9.2.2.x Served Cell Specific Info Request

The *Served Cell Specific Info Request* IE is used by the NG-RAN node to request specific information about NR cells.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
| **List of Requested NR Cells** |  | *1 .. < maxnoofCellsinNG-RAN node>* |  | List of NR cells. |
| >NR CGI | M |  | 9.2.2.7 | NR cell for which specific served NR cell information is requested. |
| Additional Measurement Timing Configuration List Request Indicator | O |  | ENUMERATED (AdditionalMTCListRequested, …) | Included when the NG-RAN node requests the *Additional Measurement Timing Configuration List* IE to be included in the *Served Cell Information NR* IE for the requested cells. |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofCellsinNG-RAN node | Maximum no. cells that can be served by a NG-RAN node. Value is 16384. |

### 9.3.4 PDU Definitions

<<< skip unchanged ASN.1 >>>

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-- NG-RAN NODE CONFIGURATION UPDATE

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

NGRANNodeConfigurationUpdate ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{ NGRANNodeConfigurationUpdate-IEs}},

...

}

NGRANNodeConfigurationUpdate-IEs XNAP-PROTOCOL-IES ::= {

{ ID id-TAISupport-list CRITICALITY reject TYPE TAISupport-List PRESENCE optional }|

{ ID id-ConfigurationUpdateInitiatingNodeChoice CRITICALITY ignore TYPE ConfigurationUpdateInitiatingNodeChoice PRESENCE mandatory}|

{ ID id-TNLA-To-Add-List CRITICALITY ignore TYPE TNLA-To-Add-List PRESENCE optional }|

{ ID id-TNLA-To-Remove-List CRITICALITY ignore TYPE TNLA-To-Remove-List PRESENCE optional }|

{ ID id-TNLA-To-Update-List CRITICALITY ignore TYPE TNLA-To-Update-List PRESENCE optional }|

{ ID id-GlobalNG-RAN-node-ID CRITICALITY reject TYPE GlobalNG-RANNode-ID PRESENCE optional }|

{ ID id-AMF-Region-Information-To-Add CRITICALITY reject TYPE AMF-Region-Information PRESENCE optional }|

{ ID id-AMF-Region-Information-To-Delete CRITICALITY reject TYPE AMF-Region-Information PRESENCE optional }|

{ ID id-InterfaceInstanceIndication CRITICALITY reject TYPE InterfaceInstanceIndication PRESENCE optional }|

{ ID id-TNLConfigurationInfo CRITICALITY ignore TYPE TNLConfigurationInfo PRESENCE optional },

...

}

ConfigurationUpdateInitiatingNodeChoice ::= CHOICE {

gNB ProtocolIE-Container { {ConfigurationUpdate-gNB} },

ng-eNB ProtocolIE-Container { {ConfigurationUpdate-ng-eNB} },

choice-extension ProtocolIE-Single-Container { {ServedCellsToUpdateInitiatingNodeChoice-ExtIEs} }

}

ServedCellsToUpdateInitiatingNodeChoice-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}

ConfigurationUpdate-gNB XNAP-PROTOCOL-IES ::= {

{ ID id-servedCellsToUpdate-NR CRITICALITY ignore TYPE ServedCellsToUpdate-NR PRESENCE optional }|

{ ID id-cellAssistanceInfo-NR CRITICALITY ignore TYPE CellAssistanceInfo-NR PRESENCE optional }|

{ ID id-cellAssistanceInfo-EUTRA CRITICALITY ignore TYPE CellAssistanceInfo-EUTRA PRESENCE optional }|

{ ID id-servedCellSpecificInfoReq-NR CRITICALITY ignore TYPE ServedCellSpecificInfoReq-NR PRESENCE optional },

...

}

ConfigurationUpdate-ng-eNB XNAP-PROTOCOL-IES ::= {

{ ID id-servedCellsToUpdate-E-UTRA CRITICALITY ignore TYPE ServedCellsToUpdate-E-UTRA PRESENCE optional }|

{ ID id-cellAssistanceInfo-NR CRITICALITY ignore TYPE CellAssistanceInfo-NR PRESENCE optional }|

{ ID id-cellAssistanceInfo-EUTRA CRITICALITY ignore TYPE CellAssistanceInfo-EUTRA PRESENCE optional },

...

}

### 9.3.5 Information Element definitions

<<< skip unchanged ASN.1 >>>

AdditionalMTCListRequestIndicator ::= ENUMERATED {AdditionalMTCListRequested, ...}

<<< skip unchanged ASN.1 >>>

ServedCellSpecificInfoReq-NR ::= SEQUENCE {

requestedNRCells-List SEQUENCE (SIZE(1..maxnoofCellsinNG-RANnode)) OF NR-CGI,

additionalMTCListRequestIndicator AdditionalMTCListRequestIndicator OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { ServedCellSpecificInfoReq-NR-ExtIEs} } OPTIONAL,

...

}

CellAssistanceInfo-NR-ExtIEs XNAP-PROTOCOL-IES ::= {

...

}