3GPP TSG RAN3#124 R3-243827

**Fukuoka, Japan, 20 - 24 May, 2024**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **1309** | **rev** | **1** | **Current version:** |  |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network |  |

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|  | | | | | | | | | | |
| ***Title:*** | Correction to QMC support in NR-DC for session status | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung, Ericsson, Xiaomi, China Unicom, Qualcomm Incorporated | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_QoE\_enh-Core | | | | |  | ***Date:*** | | | 2024-05-22 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | |  |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)* ***S*** *(adding to the sourcing companies’ CR statistics)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19) Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | RAN2 has defined a session status information in the QoE report to indicate whether the application layer session has started or stopped. However, if the QoE report is received over the non QoE configuring node, the QoE configuring node cannot obtain the session status information according to the current spec. As a consequence, the QoE configuring node has no clue on whether to release the QoE/RVQoE configurations even if the application session has stopped.  Moreover, there was comment that if the QoE configuring node would like to understand the session status while the QoE report is received over non QoE configuring node, the QoE configuring node can instead request to receive the QoE report over QoE configuring node in order to obtain the session status. However, such mechanism brings more complexity on coordination, considering the fact that the QoE configuring node only needs to know the application layer session status.  Therefore, transferring the application layer session status is needed. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | * Add Application Layer Session Status IE in RRC TRANSFER message. * Update the semantics for SRB ID in SDT SRB between New NG-RAN node and Old NG-RAN node.   Impact Analysis:  Impact assessment towards the previous version of the specification (same release):  This CR has isolated impact with the previous version of the specification (same release) on the QMC coordination. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Some sub-feature for QMC in NR-DC is not fully supported. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.1.2.20, 9.3.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev 1:   * Update the Semantics description of Application Layer Session Status. | | | | | | | | |

-------------------------------------------Start of changes-------------------------------------------

#### 9.1.2.20 RRC TRANSFER

This message is sent by the M-NG-RAN-NODE to the S-NG-RAN-NODE to transfer an RRC message or from the S-NG-RAN-NODE to the M-NG-RAN-NODE to report the DL RRC message delivery status.

This message is also sent by the new NG-RAN-NODE to the old NG-RAN-NODE or from the old NG-RAN-NODE to the new NG-RAN-NODE to transfer an RRC message containing the SDT SRB in case of RACH based SDT without UE context relocation.

This message is also sent by the M-NG-RAN-NODE to the S-NG-RAN node or from the S-NG-RAN node to the M-NG-RAN node to forward QoE measurement results and/or the RAN visible QoE measurement results received from the UE.

Direction: M-NG-RAN node → S-NG-RAN node or S-NG-RAN node → M-NG-RAN node (Dual Connectivity).

Direction: new NG-RAN node → old NG-RAN node or old NG-RAN node → new NG-RAN node (SDT).

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| Message Type | M |  | 9.2.3.1 |  | YES | reject |
| M-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID  9.2.3.16 | Allocated at the M-NG-RAN node | YES | reject |
| S-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID  9.2.3.16 | Allocated at the S-NG-RAN node | YES | reject |
| >>>>>>>>>>>>>>>>>>Unchanged parts are skipped<<<<<<<<<<<<<<<<<< | | | | | | |
| **SDT SRB between New NG-RAN node and Old NG-RAN node** |  | *0..1* |  |  | YES | ignore |
| >RRC Container | M |  | OCTET STRING | Contains a PDCP-C PDU encapsulating an RRC message as defined in subclause 6.2.1 of TS 38.331 [10]. | – |  |
| >SRB ID | M |  | 9.2.3.165 | In this version of the specification, values "0", "1", "3", “4” and "5" are not set by the sender and ignored by the receiver. | – |  |
| **QoE Measurement Results** |  | *0..1* |  |  | YES | ignore |
| >QoE Reference | M |  | OCTET STRING(SIZE(6)) | *QoE Reference*, as defined in clause 5.2 of TS 28.405 [55]. It consists of MCC+MNC+QMC ID, where the MCC and MNC are coming with the QMC activation request from the management system to identify one PLMN containing the management system, and QMC ID is a 3 bytes Octet String. | – |  |
| >RRC Container for RAN Visible QoE Report | O |  | OCTET STRING | Contains the RAN-VisibleMeasurements IE of the MeasurementReportAppLayer message as defined in TS 38.331 [10]. | – |  |
| >RRC Container for QoE Report | O |  | OCTET STRING | Contains the measReportAppLayerContainer IE of the MeasurementReportAppLayer message as defined in TS 38.331 [10]. | – |  |
| >Application Layer Session Status | O |  | ENUMERATED (start, stop, ...) | Corresponds to information provided in the *appLayerSessionStatus* contained in the MeasurementReportAppLayer message as defined in TS 38.331 [10]. |  |  |

-------------------------------------------Next change-------------------------------------------

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### 9.3.4 PDU Definitions

-- ASN1START

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

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-- PDU definitions for XnAP.

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

XnAP-PDU-Contents {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) xnap (2) version1 (1) xnap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

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-- IE parameter types from other modules.

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

IMPORTS

ActivationIDforCellActivation,

AMF-Region-Information,

AMF-UE-NGAP-ID,

>>>>>>>>>>>>>>>>>>Unchanged parts are skipped<<<<<<<<<<<<<<<<<<

QoE-Measurement-Results ::= SEQUENCE {

qOEReference OCTET STRING (SIZE(6)),

rrcContainerForRVQoEReport OCTET STRING OPTIONAL,

rrcContainerForQoEReport OCTET STRING OPTIONAL,

appLayerSessionStatus ENUMERATED {start, stop, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { {QoE-Measurement-Results-ExtIEs} } OPTIONAL,

...

}

QoE-Measurement-Results-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

-------------------------------------------End of changes-------------------------------------------