**3GPP TSG-RAN WG3 Meeting #123R3-240832**

**Athens, Greece, 26th Feb – 1st Mar 2024**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **0018** | **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 | **X** |

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| ***Title:*** | Clarification of Trace support for N3IWF | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell, Deutsche Telekom, British Telecommunications, Huawei, Ericsson, ZTE | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI15 | | | | |  | ***Date:*** | | | 2024-02-26 |
|  |  | | | |  | |  | | |  |
| ***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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | SA5 agreed the TS 32.422 CRs to add the missing steps for Trace Start in N3IWF for untrusted non-3GPP access. It is necessary to clarify the Trace is applicable to untrusted non-3GPP access. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Clarify the Trace is applicable to untrusted non-3GPP access.  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) because it adds the missing tracing functionality for N3IWF. | | | | | | | | |
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| ***Consequences if not approved:*** | | Misalignment with TS 32.422, and cannot support Trace for untrusted non-3GPP access. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.1, 5.2, 5.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | |  | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev 1: updated based on online comments. | | | | | | | | |

*Start of Change*

# 5 Non-3GPP access

## 5.1 Use of the NGAP for non-3GPP access

The following NGAP procedures are used between the N3IWF and the AMF:

- PDU Session Management Procedures

- PDU Session Resource Setup

- PDU Session Resource Release

- PDU Session Resource Modify

- PDU Session Resource Notify

- UE Context Management Procedures

- Initial Context Setup

- UE Context Release Request

- UE Context Release

- UE Context Modification

- Transport of NAS Messages Procedures

- Initial UE Message

- Downlink NAS Transport

- Uplink NAS Transport

- NAS Non Delivery Indication

- Reroute NAS Request

- Interface Management Procedures

- NG Setup

- RAN Configuration Update

- AMF Configuration Update

- NG Reset

- Error Indication

- AMF Status Indication

- Overload Start

- Overload Stop

- UE TNLA Binding Procedures

- UE TNLA Binding Release

- Trace Procedures

- Trace Start

- Trace Failure Indication

- Deactivate Trace

For the NGAP procedures used between the N3IWF and the AMF, the N3IWF fulfils the behaviour of the NG-RAN node as specified in clause 8 of TS 38.413 [2], with clarifications as specified in Clause 5.3. The text in clause 8 of TS 38.413 [2] referring to Uu should be understood as referring to the Y2 reference point as specified in TS 23.501 [3].

## 5.2 NGAP messages used for non-3GPP access

The list given below shows the NGAP messages, as specified in TS 38.413 [2] subclause 9.2 (tabular format) and 9.4

(ASN.1 notation) that are used between the N3IWF and the AMF.

- PDU SESSION RESOURCE SETUP REQUEST

- PDU SESSION RESOURCE SETUP RESPONSE

- PDU SESSION RESOURCE RELEASE COMMAND

- PDU SESSION RESOURCE RELEASE RESPONSE

- PDU SESSION RESOURCE MODIFY REQUEST

- PDU SESSION RESOURCE MODIFY RESPONSE

- PDU SESSION RESOURCE NOTIFY

- INITIAL CONTEXT SETUP REQUEST

- INITIAL CONTEXT SETUP RESPONSE

- INITIAL CONTEXT SETUP FAILURE

- UE CONTEXT RELEASE REQUEST

- UE CONTEXT RELEASE COMMAND

- UE CONTEXT RELEASE COMPLETE

- UE CONTEXT MODIFICATION REQUEST

- UE CONTEXT MODIFICATION RESPONSE

- UE CONTEXT MODIFICATION FAILURE

- INITIAL UE MESSAGE

- DOWNLINK NAS TRANSPORT

- UPLINK NAS TRANSPORT

- NAS NON DELIVERY INDICATION

- REROUTE NAS REQUEST

- NG SETUP REQUEST

- NG SETUP RESPONSE

- NG SETUP FAILURE

- RAN CONFIGURATION UPDATE

- RAN CONFIGURATION UPDATE ACKNOWLEDGE

- RAN CONFIGURATION UPDATE FAILURE

- AMF CONFIGURATION UPDATE

- AMF CONFIGURATION UPDATE ACKNOWLEDGE

- AMF CONFIGURATION UPDATE FAILURE

- NG RESET

- NG RESET ACKNOWLEDGE

- ERROR INDICATION

- AMF STATUS INDICATION

- OVERLOAD START

- OVERLOAD STOP

- UE TNLA BINDING RELEASE REQUEST

- TRACE START

- TRACE FAILURE INDICATION

- DEACTIVATE TRACE

## 5.3 Exceptions for NGAP message contents and information element coding when used for non-3GPP access

For the NGAP messages transferred between the N3IWF and the AMF, the following exceptions to the specification in TS 38.413 [2] shall be applied:

PDU SESSION RESOURCE SETUP REQUEST message:

- the following IEs shall be ignored, when received:

- *RAN Paging Priority* IE

PDU SESSION RESOURCE RELEASE COMMAND message:

- the following IEs shall be ignored, when received:

- *RAN Paging Priority* IE

PDU SESSION RESOURCE MODIFY REQUEST message:

- the following IEs shall be ignored, when received:

- *RAN Paging Priority* IE

INITIAL CONTEXT SETUP REQUEST message:

- the following IEs shall be ignored, when received:

- *Core Network Assistance Information* *for RRC INACTIVE* IE

- *MobilityRestriction List* IE

- *UE Radio Capability* IE

- *Index to RAT/Frequency Selection Priority* IE

- *Emergency Fallback Indicator* IE

- *RRC Inactive Transition Report Request* IE

- *UE Radio Capability for Paging* IE

- *Redirection for Voice EPS Fallback* IE

- *Location Reporting Request Type* IE

- *CN Assisted RAN Parameters Tuning* IE

UE CONTEXT RELEASE COMPLETE message:

*End of Change*