**3GPP TSG-WG SA2 Meeting #137E e-meeting  *S2-2002243***

**Elbonia, February 24 – 27, 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **23.502** | **CR** | **2156** | **rev** | **-** | **Current version:** | **16.3.0** |  |
|  | | | | | | | | |
| *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 |  | Core Network | **x** |

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| ***Title:*** | Update the service operation of AMF | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | SA2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GS\_Ph1 | | | | |  | ***Date:*** | | | **2020-02-17** |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | **Rel-16** |
|  | *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)*  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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | CT4 has agreed a new AMF service operation, “Namf\_Communication\_NonUeN2MessageTransfer”, which is used by the 5GC NF to deliver a non-UE message to the NG-RAN.  The example of using this service operation is defined in location service:  For Obtaining Non-UE Associated Network Assistance Data Procedure in the location service, the procedure is used by the LMF to obtain network assistance data from a NG-RAN node.  Another known NF service consumer is the AMF. Source AMF may transfer the RIM information to target AMF.  Therefore, it is proposed to update the service operation of AMF to include the service operation of “Namf\_Communication\_NonUEN2MessageTransfer”. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Update the service operation of AMF by addig Namf\_Communication\_NonUeN2MessageTransfer. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Mis-alignment between SA2 and CT4 on AMF service operation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2.2.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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| ***This CR's revision history:*** |  |

*FIRST CHANGE*

#### 5.2.2.1 General

The following table shows the AMF Services and AMF Service Operations.

Table 5.2.2.1-1: List of AMF Services

|  |  |  |  |
| --- | --- | --- | --- |
| Service Name | Service Operations | Operation  Semantic | Known Consumer(s) |
| Namf\_Communication | UEContextTransfer | Request/ Response | Peer AMF |
|  | CreateUEContext | Request/ Response | Peer AMF |
|  | ReleaseUEContext | Request/ Response | Peer AMF |
|  | RegistrationCompleteNotify | Subscribe / Notify | Peer AMF |
|  | N1MessageNotify | Subscribe / Notify | SMF, SMSF, PCF, LMF, Peer AMF |
|  | N1MessageSubscribe |  | SMF, SMSF, PCF |
|  | N1MessageUnSubscribe |  | SMF, SMSF, PCF |
|  | N1N2MessageTransfer | Request/ Response | SMF, SMSF, PCF, LMF |
|  | NonUeN2MessageTransfer | Request/Response | LMF, AMF |
|  | N1N2TransferFailureNotification | Subscribe / Notify | SMF, SMSF, PCF, LMF |
|  | N2InfoSubscribe | Subscribe / Notify | NOTE 1 |
|  | N2InfoUnSubscribe |  | NOTE 1 |
|  | N2InfoNotify |  | AMF, LMF |
|  | EBIAssignment | Request/Response | SMF |
|  | AMFStatusChangeSubscribe | Subscribe / Notify | SMF, PCF, NEF, SMSF, UDM |
|  | AMFStatusChangeUnSubscribe | Subscribe / Notify | SMF, PCF, NEF, SMSF, UDM |
|  | AMFStatusChangeNotify | Subscribe / Notify | SMF, PCF, NEF, SMSF, UDM |
| Namf\_EventExposure | Subscribe | Subscribe / Notify | NEF, SMF, UDM |
|  | Unsubscribe | Subscribe / Notify | NEF, SMF, UDM |
|  | Notify | Subscribe / Notify | NEF, SMF, UDM |
| Namf\_MT | EnableUEReachability | Request/Response | SMSF |
|  | ProvideDomainSelectionInfo | Request/Response | UDM |
| Namf\_Location | ProvidePositioningInfo | Request/Response | GMLC |
|  | EventNotify | Subscribe / Notify | GMLC |
|  | ProvideLocationInfo | Request/Response | UDM |
|  | CancelLocation | Request/Response | GMLC |
| NOTE 1: In this Release of the specification no known consumer is identified to use this service operation. | | | |

##### 5.2.2.2.17 Namf\_Communication\_NonUeN2MessageTransfer service operation

**Service operation name:** Namf\_Communication\_NonUeN2MessageTransfer.

**Description:** CN NF request to transfer downlink N2 message to the AN through the AMF. The N2 message does not correlate to any UE.

**Input, Required:**, N2 Message Container

**Input, Optional:** NG RAN Node IDs, RAT selector, Tracking Area List.

**Output, Required:** Result indication*.*

**Output, Optional:** Redirection information, Estimated Maximum wait time*.*

\*\*\*\*\* End of CHANGE \*\*\*\*\*