**3GPP TSG-CT WG4 Meeting #99eC4-204361**

**E-Meeting, 18th – 28th August 2020 was C4-204103**

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| --- |
| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **29.518** | **CR** | **0377** | **rev** | **1** | **Current version:** | **16.4.0** |  |
|  |
| *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:***  | Transfer N2 SM Info Received from SMF to Target AMF |
|  |  |
| ***Source to WG:*** | ZTE |
| ***Source to TSG:*** | CT4 |
|  |  |
| ***Work item code:*** | eNS |  | ***Date:*** | 2020-08-11 |
|  |  |  |  |  |
| ***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 canbe 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:*** | In EPS to 5GS handover procedure with AMF re-allocation, the initial AMF shall include the N2 SM Info from the SMF (if any) to the target AMF when sending Namf\_Communication\_CreateUEContext message, so that target AMF can forward the N2 SM Info from the SMF to the target RAN. Such N2 SM Info forwarding by the initial AMF to the target AMF are specified in TS23.502 clause 4.11.1.2.2.2 – preparation phase:7. The PGW-C+SMF (default V-SMF in the case of home-routed roaming scenario only) sends a Nsmf\_PDUSession\_CreateSMContext Response (PDU Session ID, S-NSSAI, N2 SM Information (PDU Session ID, S-NSSAI, QFI(s), QoS Profile(s), EPS Bearer Setup List, Mapping between EBI(s) and QFI(s), CN Tunnel-Info, cause code)) to the initial AMF.……8a. Based on the received S-NSSAI from the PGW-C+SMF, the Initial AMF may reselect a target AMF as described in clause 5.15.5.2.1 of TS 23.501 [2], and invokes Namf\_Communication\_CreateUEContext request (SUPI, Target 5GAN Node ID, Source to Target Transparent Container, 5GS MM Context, MME Tunnel Endpoint Identifier for Control Plane, MME Address for Control plane,PDU Session ID and its associated S-NSSAI of the VPLMN value for each PDU Session, the corresponding S-NSSAI of HPLMN value for home routed PDU Session(s), PGW-C+SMF ID of each PDU Session, default V-SMF ID and SM Context ID of each PDU Session, allocated EBIs of each PDU Session, Allowed NSSAI received from NSSF) to the selected target AMF.9. The target AMF sends a Handover Request (Source to Target Transparent Container, Allowed NSSAI, N2 SM Information (PDU Session ID, S-NSSAI, QFI(s), QoS Profile(s), EPS Bearer Setup List, V-CN Tunnel Info, Mapping between EBI(s) and QFI(s)), Mobility Restriction List, UE Radio Capability ID) message to the NG-RAN. The target AMF provides NG-RAN with a PLMN list in the Mobility Restriction List containing at least the serving PLMN, taking into account the last used EPS PLMN ID and the Return preferred indication. The Mobility Restriction List contain information about PLMN IDs as specified by TS 23.501 [2].Currently, the N2 SM Info (from the SMF) is missing from the N1MessageNotify message. As there are some mandatory IEs in UeContextCreateData / UeContextCreatedData which is not useful for the EPS to 5GS handover, it is not possible to directly update the UeContextCreate data structure for the mentioned scenrio. Instead, new service operation – RelocateUeContext is proposed for the EPS to 5GS handover procedure with AMF re-allocation. |
|  |  |
| ***Summary of change:*** | Define new service operation – RelocateUeContext for the initial AMF to request target AMF to create UE context, during EPS to 5GS handover procedure with AMF re-allocation. |
|  |  |
| ***Consequences if not approved:*** | The N2 SM Info sent by SMF to initial AMF cannot be forwarded to the target AMF thus finally not able to reach NG-RAN, during EPS to 5GS handover procedure with AMF re-allocation. |
|  |  |
| ***Clauses affected:*** | 5.2.2.1, 5.2.2.2.3.1, 5.2.2.2.x(new), 6.1.3.1, 6.1.3.2.x(new), 6.1.6.1, 6.1.6.2.41, 6.1.6.2.x1(new), 6.1.6.2.x2(new), A.2 |
|  |  |
|  | **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 introduces backward compatible changes to the OpenAPI file TS29518\_Namf\_Communication. |
|  |  |
| ***This CR's revision history:*** | Rev1:As there are some mandatory IEs in UeContextCreateData / UeContextCreatedData, it is not possible to directly update the UeContextCreate data structure for the mentioned scenrio. Instead, new service operation – RelocateUeContext is proposed for the EPS to 5GS handover procedure with AMF re-allocation. |

*BEGIN OF CHANGES*

#### 5.2.2.1 Introduction

The Namf\_Communication service supports following service operations:

- UEContextTransfer

- RelocateUEContext

- RegistrationStatusUpdate

- N1N2MessageTransfer (UE Specific)

- N1N2TransferFailureNotification (UE Specific)

- N1N2MessageSubscribe (UE Specific)

- N1N2MessageUnsubscribe (UE Specific)

- N1MessageNotify (UE Specific)

- N2InfoNotify (UE Specific)

- NonUeN2MessageTransfer

- NonUeN2InfoSubscribe

- NonUeN2INfoUnsubscribe

- N2InfoNotify

- EBIAssignment

- CreateUEContext

- ReleaseUEContext

- AMFStatusChangeSubscribe

- AMFStatusChangeUnsubscribe

- AMFStatusChangeNotify

*NEXT CHANGES*

##### 5.2.2.2.3 CreateUEContext

###### 5.2.2.2.3.1 General

The CreateUEContext service operation is used during the following procedure:

- Inter NG-RAN node N2 based handover (see 3GPP TS 23.502 [3], clause 4.9.1.3, and clause 4.23.7)

- 5G-SRVCC procedure from NG-RAN to UTRAN (see 3GPP TS 23.216 [39], clause 6.5)

The CreateUEContext service operation is invoked by a NF Service Consumer, e.g. a source AMF, towards the AMF (acting as target AMF), when the source AMF can't serve the UE and selects the target AMF during the handover procedure, to create the UE Context in the target AMF.

The NF Service Consumer (e.g. the source AMF) shall create the UE Context by using the HTTP PUT method with the URI of the "Individual UeContext" resource (See clause 6.1.3.2.3.1). See also Figure 5.2.2.2.3.1-1.



Figure 5.2.2.2.3.1-1 Create UE Context

1. The NF Service Consumer, e.g. source AMF, shall send a PUT request, to create the ueContext in the target AMF. The payload body of the PUT request shall contain a UeContextCreateData structure, including a N2 Information Notification callback URI.

The UE context shall contain trace control and configuration parameters, if signalling based trace has been activated (see 3GPP TS 32.422 [30]).

For EPS to 5GS Mobility procedure, the NF Service Consumer, i.e. initial AMF, shall carry the S-NSSAI for serving PLMN, and MME Control Plane Address and TEID in the request. In Home Routed roaming case, the S-NSSAI for serving PLMN is derived by the initial AMF based on the S-NSSAI for home PLMN retrieved from SMF+PGW-C, as specified in 3GPP TS 23.502 [3].

For 5G-SRVCC procedure from NG-RAN to UTRAN, the NF Service Consumer (i.e. AMF) carries the Mobile Station Classmark 2, STN-SR, C-MSISDN and Supported Codec List in the request, as specified in 3GPP TS 23.502 [3].

2a. On success, the target AMF shall respond with the status code "201 Created" if the request is accepted, together with a HTTP Location header to provide the location of a newly created resource. The payload body of the PUT response shall contain the representation of the created UE Context. If the target AMF selects a new PCF for AM Policy other than the one which was included in the UeContext by the old AMF, the target AMF shall set pcfReselectionInd to true. If the pcfReselectionInd is set to true, the source AMF shall terminate the AM Policy Association to the old PCF.

The target AMF starts tracing according to the received trace control and configuration parameters, if trace data is received in the UE context indicating that signalling based trace has been activated. Once the AMF receives subscription data, trace requirements received from the UDM supersedes the trace requirements received from the NF Service Consumer.

 The UE context shall contain event subscriptions information in the following cases:

a) Any NF Service Consumer has subscribed for UE specific event; and/or

b) Any NF Service Consumer has subscribed for UE group specific events to which the UE belongs. In this case the event subscriptions provided in the UE context shall contain the event details applicable to this specific UE in the group (e.g maxReports in options IE).

 The target AMF shall:

- in case a) create event subscriptions for the UE specific events;

- in case b) create event subscriptions for the group Id if there are no existing event subscriptions for that group Id, subscription change notification URI (subsChangeNotifyUri) and the subscription change notification correlation Id (subsChangeNotifyCorrelationId). If there is already an existing event subscription for the group Id and for the given subscription change notification URI (subsChangeNotifyUri) and subscription Id change notification correlation Id (subsChangeNotifyCorrelationId), then an event subscription shall not be created at the target AMF. The individual UE specific event details (e.g maxReports in options IE) within that group shall be taken into account.

- for both the cases, for each created event subscription, allocate a new subscription Id, if necessary (see clause 6.5.2 of 3GPP TS 29.500 [4]), and if allocated send the new subscription Id to the notification endpoint for informing the subscription Id creation, along with the notification correlation Id for the subscription Id change.

NOTE: Subscription Id can be reused if the mobility is between AMFs of same AMF Set.

If the UE context being transferred from the NF service consumer (e.g. source AMF) is the last UE context that belongs to a UE group Id related subscription, then the NF service consumer (e.g. source AMF) shall not delete the UE group Id related subscription until the expiry of that event subscription (see clause 5.3.2.2.2).

The source AMF, shall:

- release those PDU sessions not supported by the target AMF and thus not transferred to the target AMF.

2b. On failure or redirection, one of the HTTP status code listed in Table 6.1.3.2.3.1-3 shall be returned. For a 4xx/5xx response, the message body shall contain a UeContextCreateError structure, including:

- a ProblemDetails structure with the "cause" attribute set to one of the application errors listed in Table 6.1.3.2.3.1-3;

- NgAPCause, if available;

- N2 information carrying the Target to Source Failure Transparent Container, if this information has been received from the target NG-RAN and if the source AMF supports the NPN feature.

*NEXT CHANGES*

##### 5.2.2.2.X RelocateUEContext

###### 5.2.2.2.X.1 General

The RelocateUEContext service operation is used during the following procedure:

- EPS to 5GS handover using N26 interface with AMF re-allocation (see 3GPP TS 23.502 [3], clause 4.2.2.2.2) with

The RelocateUEContext service operation is invoked by a NF Service Consumer, e.g. an initial AMF, towards the AMF (acting as tareget AMF), during EPS to 5GS handover with AMF re-allocation, to create the UE Context in the target AMF .

The NF Service Consumer (e.g. the initial AMF) shall create the UE Context by invoking the "relocate" custom method on the URI of an "Individual ueContext" resource identified by UE's 5G-GUTI, see clause 6.1.3.2.4. See also Figure 5.2.2.2.X.1-1.



Figure 5.2.2.2.X.1-1 Create UE Context

1. The NF Service Consumer, e.g. initial AMF, shall send a POST request, to create the ueContext in the target AMF. The payload body of the POST request shall contain a RelocateUeContextCreateData structure, including a N2 Information Notification callback URI.

The UE context shall contain trace control and configuration parameters, if signalling based trace has been activated (see 3GPP TS 32.422 [30]).

For EPS to 5GS Mobility procedure, the NF Service Consumer, i.e. initial AMF, shall carry the S-NSSAI for serving PLMN, and MME Control Plane Address and TEID in the request. In Home Routed roaming case, the S-NSSAI for serving PLMN is derived by the initial AMF based on the S-NSSAI for home PLMN retrieved from SMF+PGW-C, as specified in 3GPP TS 23.502 [3].

2a. On success, the target AMF shall respond with the status code "201 Created" if the request is accepted, together with a HTTP Location header to provide the location of a newly created resource. The payload body of the PUT response shall contain the representation of the created UE Context.

The target AMF starts tracing according to the received trace control and configuration parameters, if trace data is received in the UE context indicating that signalling based trace has been activated. Once the AMF receives subscription data, trace requirements received from the UDM supersedes the trace requirements received from the NF Service Consumer.

The source AMF, shall:

- release those PDU sessions not supported by the target AMF and thus not transferred to the target AMF.

2b. On failure or redirection, one of the HTTP status code listed in Table 6.1.3.2.3.1-3 shall be returned. For a 4xx/5xx response, the message body shall contain a UeContextCreateError structure, including:

- a ProblemDetails structure with the "cause" attribute set to one of the application errors listed in Table 6.1.3.2.3.1-3;

- NgAPCause, if available;

*NEXT CHANGES*

#### 6.1.3.1 Overview



Figure 6.1.3.1-1: Resource URI structure of the Namf\_Communication API

Table 6.1.3.1-1 provides an overview of the resources and applicable HTTP methods.

Table 6.1.3.1-1: Resources and methods overview

|  |  |  |  |
| --- | --- | --- | --- |
| Resource name | Resource URI | HTTP method or custom operation | Description(Mapped Service Operations) |
| Individual ueContext | /ue-contexts/{ueContextId} |  |  |
| PUT | CreateUEContext |
| /ue-contexts/{ueContextId}/release | release(POST) | ReleaseUEContext |
| /ue-contexts/{ueContextId}/assign-ebi | assign-ebi(POST) | EBIAssignment |
| /ue-contexts/{ueContextId}/transfer | transfer(POST) | UEContextTransfer |
| /ue-contexts/{ueContextId}/transfer-update | transfer-update(POST) | RegistrationStatusUpdate |
| /ue-contexts/{ueContextId}/relocate | relocate(POST) | RelocateUEContext |
| n1N2Message collection | /ue-contexts/{ueContextId}/n1-n2-messages | POST | N1N2MessageTransfer |
| N1N2 Subscriptions Collection for Individual UE Contexts | /ue-contexts/{ueContextId}/n1-n2-messages/subscriptions | POST | N1N2MessageSubscribe |
| N1N2 Individual Subscription | /ue-contexts/{ueContextId}/n1-n2-messages/subscriptions/{subscriptionId} | DELETE | N1N2MessageUnSubscribe |
| n1N2Message transfer status notification callback | {n1N2MessageTransferFailureNotifyUrl}(NF Service Consumer provided callback reference) | POST | N1N2Transfer Failure Notification |
| subscriptionscollection | /subscriptions | POST | AMFStatusChangeSubscribe |
| individualsubscription | /{subscriptionId} | PUT | AMFStatusChangeSubscribe |
| DELETE | AMFStatusChangeUnSubscribe |
| Non UE N2Messages collection  | /non-ue-n2-messages/transfer | transfer(POST) | NonUEN2MessageTransfer |
| Non UE N2Messages Subscriptions collection | /non-ue-n2-messages/subscriptions | POST | NonUEN2InfoSubscribe |
| Non UE N2 Message Notification Individual Subscription | /non-ue-n2-messages/subscriptions/{n2NotifySubscriptionId} | DELETE | NonUEN2InfoUnsubscribe |

*NEXT CHANGES*

###### 6.1.3.2.4.x Operation: relocate (POST)

6.1.3.2.4.x.1 Description

This ueContextId identifies the individual ueContext resource is composed by UE's 5G-GUTI, see Table 6.1.3.2.2-1.

6.1.3.2.4.x.2 Operation Definition

This operation shall support the request data structures specified in table 6.1.3.2.4.x.2-1 and the response data structure and response codes specified in table 6.1.3.2.4.5.2-2.

Table 6.1.3.2.4.x.2-1: Data structures supported by the (POST) relocate Request Body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| RelocateUeContextCreateData | M | 1 | Defines the UE Context to be created. |

Table 6.1.3.2.4.x.2-2: Data structures supported by the (POST) relocate Response Body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Responsecodes | Description |
| RelocateUeContextCreatedData | M | 1 | 201 Created | This case represents the successful creation of a new UE Context.Upon success, a response body is returned containing the newly created UE Context. |
| UeContextCreateError | O | 0..1 | 403 Forbidden | This case represents the creation of a new UE Context is not successful.The "cause" attribute may be used to indicate one of the following application errors:- HANDOVER\_FAILURE |

*NEXT CHANGES*

#### 6.1.6.1 General

This clause specifies the application data model supported by the API.

Table 6.1.6.1-1 specifies the data types defined for the Namf\_Communication service based interface protocol.

Table 6.1.6.1-1: Namf\_Communication specific Data Types

|  |  |  |
| --- | --- | --- |
| Data type | Clause defined | Description |
| SubscriptionData | 6.1.6.2.2 | Information within AMFStatusChangeSubscribe |
| AmfStatusChangeNotification | 6.1.6.2.3 | Information within AMFStatusChangeNotify |
| AmfStatusInfo | 6.1.6.2.4 | Information within AMFStatusChangeNotify |
| AssignEbiData | 6.1.6.2.5 | Represents information needed for AMF to assign EBIs. |
| AssignedEbiData | 6.1.6.2.6 | Represents successful assignment of EBI(s). |
| AssignEbiFailed | 6.1.6.2.7 | Represents failed assignment of EBI(s) |
| UEContextRelease | 6.1.6.2.8 | Information within ReleaseUeContext |
| N2InformationTransferReqData | 6.1.6.2.9 | N2 information requested to be transferred to 5G AN. |
| NonUeN2InfoSubscriptionCreateData | 6.1.6.2.10 | Subscription information for non UE specific N2 information notification. |
| NonUeN2InfoSubscriptionCreatedData | 6.1.6.2.11 | The created subscription for non UE specific N2 information notification. |
| UeN1N2InfoSubscriptionCreateData | 6.1.6.2.12 | Subscription information for UE specific N1 and/or N2 information notification. |
| UeN1N2InfoSubscriptionCreatedData | 6.1.6.2.13 | The created subscription for UE specific N1 and/or N2 information notification. |
| N2InformationNotification | 6.1.6.2.14 | N2 information for notification. |
| N2InfoContainer | 6.1.6.2.15 | N2 information container. |
| N1MessageNotification | 6.1.6.2.16 | N1 message notification data structure. |
| N1MessageContainer | 6.1.6.2.17 | N1 Message Container |
| N1N2MessageTransferReqData | 6.1.6.2.18 | N1/N2 message container |
| N1N2MessageTransferRspData | 6.1.6.2.19 | N1/N2 message transfer response |
| RegistrationContextContainer | 6.1.6.2.20 | Registration Context Container used to send the UE context information, N1 message from UE, AN address etc during Registration with AMF re-allocation procedure. |
| AreaOfValidity | 6.1.6.2.21 | Area of validity information for N2 information transfer |
| UeContextTransferReqData | 6.1.6.2.23 | Represents to start transferring of an individual ueContext resource from old AMF to new AMF. |
| UeContextTransferRspData | 6.1.6.2.24 | Indicates the transferring of the individual ueContext resource is started successfully. |
| UeContext | 6.1.6.2.25 | Represents an individual ueContext resource |
| N2SmInformation | 6.1.6.2.26 | Represents the session management SMF related N2 information data part. |
| N2InfoContent | 6.1.6.2.27 | Represents a transparent N2 information content to be relayed by AMF. |
| NrppaInformation | 6.1.6.2.28 | Represents a NRPPa related N2 information data part. |
| PwsInformation | 6.1.6.2.29 | Represents a PWS related information data part. |
| N1N2MsgTxfrFailureNotification | 6.1.6.2.30 | N1/N2 Message Transfer Failure Notification |
| N1N2MessageTransferError | 6.1.6.2.31 | N1/N2 Message Transfer Error |
| N1N2MsgTxfrErrDetail | 6.1.6.2.32 | N1/N2 Message Transfer Error Details |
| N2InformationTransferRspData | 6.1.6.2.33 | Indicates a successful delivery of N2 Information to the AN. |
| MmContext | 6.1.6.2.34 | Represents a Mobility Management Context in UE Context |
| SeafData | 6.1.6.2.35 | Represents SEAF data derived from data received from AUSF |
| NasSecurityMode | 6.1.6.2.36 | Indicates the NAS Security Mode |
| PduSessionContext | 6.1.6.2.37 | Represents a PDU Session Context in UE Context |
| NssaiMapping | 6.1.6.2.38 | Represents a map of a S-NSSAI in serving PLMN to a S-NSSAI in home PLMN. |
| UeRegStatusUpdateReqData | 6.1.6.2.39 | Provides information on the UE registration completion at a target AMF. |
| AssignEbiError | 6.1.6.2.40 | Represents the details regarding EBI assignment failure. |
| UeContextCreateData | 6.1.6.2.41 | Indicates a request to create an individual ueContext resource |
| UeContextCreatedData | 6.1.6.2.42 | Indicates a successful creation of an individual ueContext resource |
| UeContextCreateError | 6.1.6.2.43 | Represents an error when creating a UE context |
| NgRanTargetId | 6.1.6.2.44 | Indicates a NG RAN as target of the handover |
| N2InformationTransferError | 6.1.6.2.45 | Error within NonUeN2MessageTransfer response |
| PWSResponseData | 6.1.6.2.46 | Represents the type of PWS |
| PWSErrorData | 6.1.6.2.47 | Represents the type of PWS error |
| NgKsi | 6.1.6.2.49 | Represents the ngKSI (see 3GPP TS 33.501 [27]) |
| KeyAmf | 6.1.6.2.50 | Represents the Kamf or K'amf. (see 3GPP TS 33.501 [27]). |
| ExpectedUeBehavior | 6.1.6.2.51 | Represents the expected UE behavior (e.g. UE moving trajectory) and its validity period. |
| UeRegStatusUpdateRspData | 6.1.6.2.52 | Provides the status of UE context transfer status update at a source AMF. |
| N2RanInformation | 6.1.6.2.53 | Represents the RAN related N2 information data part. |
| N2InfoNotificationRspData | 6.1.6.2.54 | N2 information notification response data |
| SmallDataRateStatusInfo | 6.1.6.2.55 | Represents the small data rate status |
| SmfChangeInfo | 6.1.6.2.56 |  |
| V2xContext | 6.1.6.2.57 | Represents the V2X services related parameters |
| ImmediateMdtConf | 6.1.6.2.58 | Immediate MDT Configuration |
| V2xInformation | 6.1.6.2.59 | V2X related N2 information |
| RelocateUeContextCreateData | 6.1.6.2.x1 | UE Context requested to be created, during EPS to 5GS handover with AMF re-allocation |
| RelocateUeContextCreatedData | 6.1.6.2.x2 | UE context created data, during EPS to 5GS handover with AMF re-allocation |
| EpsBearerId | 6.1.6.3.2 | EPS Bearer Identifier |
| Ppi | 6.1.6.3.2 | Paging Policy Indicator |
| NasCount | 6.1.6.3.2 | Represents a NAS COUNT |
| 5GMmCapability | 6.1.6.3.2 | Represents a 5GMM capability |
| UeSecurityCapability | 6.1.6.3.2 | Represents a UE Security Capability |
| S1UeNetworkCapability | 6.1.6.3.2 | Represents a S1 UE Network Capability |
| DrxParameter | 6.1.6.3.2 | Indicates the UE DRX Parameters |
| OmcIdentifier | 6.1.6.3.2 | Represents the OMC Identifier |
| MSClassmark2 | 6.1.6.3.2 | Indicates the MS Classmark 2 of a 5G SRVCC UE |
| SupportedCodec | 6.1.6.3.2 | Indicates the supported codec of a 5G SRVCC UE |
| StatusChange | 6.1.6.3.3 |  |
| N2InformationClass | 6.1.6.3.4 |  |
| N1MessageClass | 6.1.6.3.5 |  |
| N1N2MessageTransferCause | 6.1.6.3.6 |  |
| UeContextTransferStatus | 6.1.6.3.7 | Describes the status of an individual ueContext resource in UE Context Transfer procedures |
| N2InformationTransferResult | 6.1.6.3.8 | Describes the result of N2 information transfer by AMF to the AN. |
| CipheringAlgorithm | 6.1.6.3.9 | Indicates the supported Ciphering Algorithm |
| IntegrityAlgorithm | 6.1.6.3.10 | Indicates the supported Integrity Algorithm |
| SmsSupport | 6.1.6.3.11 | Indicates the supported SMS delivery of a UE. |
| ScType | 6.1.6.3.12 | Indicates the security context type. |
| KeyAmfType | 6.1.6.3.13 | Indicates the Kamf type. |
| TransferReason | 6.1.6.3.14 | Indicates UE Context Transfer Reason |
| PolicyReqTrigger | 6.1.6.3.15 | Policy Request Triggers |
| RatSelector | 6.1.6.3.16 | Indicates the RAT type for the transfer of N2 information |
| NgapIeType | 6.1.6.3.17 | Indicates the supported NGAP IE types |
| N2InfoNotifyReason | 6.1.6.3.18 | N2 Information Notify Reason |
| SmfChangeIndication | 6.1.6.3.19 | Indicates the I-SMF or V-SMF change or removal |
| SbiBindingLevel | 6.1.6.3.20 | SBI Binding Level |

Table 6.1.6.1-2 specifies data types re-used by the Namf service based interface protocol from other specifications, including a reference to their respective specifications and when needed, a short description of their use within the Namf service based interface.

Table 6.1.6.1-2: Namf re-used Data Types

|  |  |  |
| --- | --- | --- |
| Data type | Reference | Comments |
| Snssai | 3GPP TS 29.571 [6] |  |
| Arp | 3GPP TS 29.571 [6] |  |
| PduSesisonId | 3GPP TS 29.571 [6] |  |
| Guami | 3GPP TS 29.571 [6] | Globally Unique AMF Identifier |
| AmfName | 3GPP TS 29.571 [6] | The name of the AMF |
| Supi | 3GPP TS 29.571 [6] | Subscription Permanent Identifier |
| IndicationFlags | 3GPP TS 29.502 [16] | Indication Flags |
| Cause | 3GPP TS 29.571 [6] | 5G-AN Cause |
| ProblemDetails | 3GPP TS 29.571 [6] | Detailed problems in failure case |
| supportedFeatures | 3GPP TS 29.571 [6] | Supported Features |
| TimeZone | 3GPP TS 29.571 [6] |  |
| UserLocation | 3GPP TS 29.571 [6] |  |
| AccessType | 3GPP TS 29.571 [6] |  |
| AllowedNssai | 3GPP TS 29.531 [18] |  |
| NfInstanceId | 3GPP TS 29.571 [6] |  |
| Uri | 3GPP TS 29.571 [6] |  |
| Ecgi | 3GPP TS 29.571 [6] | EUTRA Cell Identifier |
| Ncgi | 3GPP TS 29.571 [6] | NR Cell Identifier |
| Uint16 | 3GPP TS 29.571 [6] |  |
| 5Qi | 3GPP TS 29.571 [6] | 5G QoS Identifier |
| CorrelationID | 3GPP TS 29.572 [25] | LCS Correlation ID |
| Pei | 3GPP TS 29.571 [6] |  |
| Dnn | 3GPP TS 29.571 [6] |  |
| Gpsi | 3GPP TS 29.571 [6] |  |
| GroupId | 3GPP TS 29.571 [6] |  |
| PlmnId | 3GPP TS 29.571 [6] |  |
| RfspIndex | 3GPP TS 29.571 [6] |  |
| EbiArpMapping | 3GPP TS 29.502 [16] | EBI - ARP mapping |
| NsiId | 3GPP TS 29.531 [18] |  |
| TraceData | 3GPP TS 29.571 [6] | Trace control and configuration parameters |
| ConfiguredSnssai | 3GPP TS 29.531 [18] |  |
| NgApCause | 3GPP TS 29.571 [6] | Represents the NG AP cause IE |
| Area | 3GPP TS 29.571 [6] |  |
| ServiceAreaRestriction | 3GPP TS 29.571 [6] |  |
| CoreNetworkType | 3GPP TS 29.571 [6] |  |
| Ambr | 3GPP TS 29.571 [6] |  |
| GlobalRanNodeId | 3GPP TS 29.571 [6] |  |
| NfGroupId | 3GPP TS 29.571 [6] | Network Function Group Id |
| DurationSec | 3GPP TS 29.571 [6] |  |
| StnSr | 3GPP TS 29.571 [6] | Session Transfer Number for SRVCC |
| CMsisdn | 3GPP TS 29.571 [6] | Correlation MSISDN |
| DateTime | 3GPP TS 29.571 [6] |  |
| SmallDataRateStatus | 3GPP TS 29.571 [6] |  |
| NfSetId | 3GPP TS 29.571 [13] | NF Set ID |
| NfServiceSetId | 3GPP TS 29.571 [13] | NF Service Set ID |
| LMFIdentification | 3GPP TS 29.572 [25] | LMF Identification |
| PlmnAssiUeRadioCapId | 3GPP TS 29.571 [6] |  |
| ManAssiUeRadioCapId | 3GPP TS 29.571 [6] |  |
| NrV2xAuth | 3GPP TS 29.571 [6] | NR V2X services authorized |
| LteV2xAuth | 3GPP TS 29.571 [6] | LTE V2X services authorized |
| BitRate | 3GPP TS 29.571 [6] | Bit Rate |
| Pc5QoSPara | 3GPP TS 29.571 [6] | PC5 QoS parameters |
| CnAssistedRanPara | 3GPP TS 29.502 [16] | SMF derived CN assisted RAN Parameters Tuning |
| MoExpDataCounter | 3GPP TS 29.571 [6] | MO Exception Data Counter |
| CagData | 3GPP TS 29.503 [35] | Closed Access Group Data |
| NssaaStatus | 3GPP TS 29.571 [6] | Subscribed S-NSSAI subject to NSSAA procedure and the status |

*NEXT CHANGES*

##### 6.1.6.2.41 Type: UeContextCreateData

Table 6.1.6.2.41-1: Definition of type UeContextCreateData

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| ueContext | UeContext | M | 1 | Represents an individual ueContext resource to be created |  |
| targetId | NgRanTargetId | M | 1 | Represents the identification of target RAN |  |
| sourceToTargetData | N2InfoContent | M | 1 | This IE shall be included to contain the "Source to Target Transparent Container". |  |
| pduSessionList | array(N2SmInformation) | M | 1..N | This IE shall be included to contain the list of N2SmInformation, where each N2SmInformation includes the "Handover Required Transfer" received from the source RAN per PDU session ID. |  |
| n2SmInfoFromSmf | array(N2SmInformation) | C | 0..N | This IE shall be included to contain the list of N2SmInformation if N2 SM Info is received from the SMF received by the initial AMF, during EPS to 5GS handover procedure with AMF re-allocation. |  |
| n2NotifyUri | Uri | M | 1 | This IE shall contain a callback URI to receive the N2 Information Notification. |  |
| ueRadioCapability | N2InfoContent | C | 0..1 | This IE shall be included to contain the "UE Radio Capability Information" if available. |  |
| ngapCause | NgApCause | C | 0..1 | This IE shall be present, if available. When present, it shall represent the NGAP Cause received from RAN. |  |
| supportedFeatures | SupportedFeatures | C | 0..1 | This IE shall be present if at least one optional feature defined in clause 6.1.8 is supported. |  |
| mmeControlFteid<need to be removed> | Bytes | C | 0..1 | Base64-encoded characters, encoding the MME F-TEID for Control Plane as specified in Figure 8.22-1 of 3GPP TS 29.274 [41] (starting from octet 1).This IE shall be included during EPS to 5GS handover procedure, if a new target AMF is reselected by the initial AMF. | ENS |

*NEXT CHANGES*

##### 6.1.6.2.x1 Type: RelocateUeContextCreateData

Table 6.1.6.2.x1-1: Definition of type RelocateUeContextCreateData

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| ueContext | UeContext | M | 1 | Represents an individual ueContext resource to be created |  |
| targetId | NgRanTargetId | M | 1 | Represents the identification of target RAN |  |
| sourceToTargetData | N2InfoContent | M | 1 | This IE shall be included to contain the "Source to Target Transparent Container". |  |
| pduSessionList<not needed> | array(N2SmInformation) | M | 1..N | This IE shall be included to contain the list of N2SmInformation, where each N2SmInformation includes the "Handover Required Transfer" received from the source RAN per PDU session ID. |  |
| n2SmInfoFromSmf | array(N2SmInformation) | C | 0..N | This IE shall be included to contain the list of N2SmInformation if N2 SM Info is received from the SMF received by the initial AMF, during EPS to 5GS handover procedure with AMF re-allocation. |  |
| n2NotifyUri | Uri | M | 1 | This IE shall contain a callback URI to receive the N2 Information Notification. |  |
| ueRadioCapability | N2InfoContent | C | 0..1 | This IE shall be included to contain the "UE Radio Capability Information" if available. |  |
| ngapCause | NgApCause | C | 0..1 | This IE shall be present, if available. When present, it shall represent the NGAP Cause received from RAN. |  |
| supportedFeatures | SupportedFeatures | C | 0..1 | This IE shall be present if at least one optional feature defined in clause 6.1.8 is supported. |  |
| mmeControlFteid | Bytes | C | 0..1 | Base64-encoded characters, encoding the MME F-TEID for Control Plane as specified in Figure 8.22-1 of 3GPP TS 29.274 [41] (starting from octet 1).This IE shall be included during EPS to 5GS handover procedure, if a new target AMF is reselected by the initial AMF. | ENS |

*NEXT CHANGES*

##### 6.1.6.2.x2 Type: UeContextCreatedData

Table 6.1.6.2.42-1: Definition of type UeContextCreatedData

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| ueContext | UeContext | M | 1 | Represents the newly created individual ueContext resource |
| targetToSourceData | N2InfoContent | M | 1 | This IE shall contain the "Target to Source Transparent Container". |
| pduSessionList<to be removed> | array(N2SmInformation) | M | 1..N | This IE shall be included to contain the list of N2SmInformation, where each N2SmInformation includes the "Handover Command Transfer" received from the SMF, per PDU session ID. |
| pcfReselectedInd<may be removed> | boolean | C | 0..1 | This IE shall be present and set to true if the target AMF has decided to select a new PCF for AM Policy other than the one which was included in the UeContext by the old AMF. |
| failedSessionList | array(N2SmInformation) | C | 1..N | This IE shall be included to contain a list of N2SmInformation, where each N2SmInformation includes the "Handover Preparation Unsuccessful Transfer" N2 SM content either received from the SMF for a PDU session failed to be handed over or generated by the target AMF for a PDU session not accepted by the target AMF (e.g. due to no response from the SMF within a maximum wait timer or due to non-available S-NSSAI in the target AMF). See NOTE. |
| supportedFeatures | SupportedFeatures | C | 0..1 | This IE shall be present if at least one optional feature defined in clause 6.1.8 is supported.  |
| NOTE: As an exception, the AMF generates N2 SM Information (Handover Preparation Unsuccessful Transfer IE) for a PDU session not accepted by the AMF, since this N2 SM IE needs to be included in the Handover Command sent by the source AMF to the source NG-RAN; this N2 SM IE carries a Cause value. |

*NEXT CHANGE*

## A.2 Namf\_Communication API

\*\*\*\*\*\*\*\*TEXT SKIPPED\*\*\*\*\*\*\*\*

 /ue-contexts/{ueContextId}/transfer-update:

 post:

 summary: Namf\_Communication RegistrationStatusUpdate service Operation

 tags:

 - Individual ueContext (Document)

 operationId: RegistrationStatusUpdate

 parameters:

 - name: ueContextId

 in: path

 description: UE Context Identifier

 required: true

 schema:

 type: string

 pattern: '^(5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-.+|gli-.+|gci-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)$'

 requestBody:

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/UeRegStatusUpdateReqData'

 required: true

 responses:

 '200':

 description: UE context transfer status successfully updated.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/UeRegStatusUpdateRspData'

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29571\_CommonData.yaml#/components/responses/default'

 /ue-contexts/{ueContextId}/n1-n2-messages:

 post:

 summary: Namf\_Communication N1N2 Message Transfer (UE Specific) service Operation

 tags:

 - n1N2Message collection (Document)

 operationId: N1N2MessageTransfer

 parameters:

 - name: ueContextId

 in: path

 description: UE Context Identifier

 required: true

 schema:

 type: string

 pattern: '^(imsi-[0-9]{5,15}|nai-.+|gli-.+|gci-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|cid-.{1,255}|.+)$'

 requestBody:

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/N1N2MessageTransferReqData'

 multipart/related: # message with binary body part(s)

 schema:

 type: object

 properties: # Request parts

 jsonData:

 $ref: '#/components/schemas/N1N2MessageTransferReqData'

 binaryDataN1Message:

 type: string

 format: binary

 binaryDataN2Information:

 type: string

 format: binary

 binaryMtData:

 type: string

 format: binary

 encoding:

 jsonData:

 contentType: application/json

 binaryDataN1Message:

 contentType: application/vnd.3gpp.5gnas

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2Information:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryMtData:

 contentType: application/vnd.3gpp.5gnas

 headers:

 Content-Id:

 schema:

 type: string

 required: true

 responses:

 '202':

 description: N1N2 Message Transfer accepted.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/N1N2MessageTransferRspData'

 headers:

 Location:

 description: 'The URI of the resource located on the AMF to which the status of the N1N2 message transfer is held'

 required: true

 schema:

 type: string

 '200':

 description: N1N2 Message Transfer successfully initiated.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/N1N2MessageTransferRspData'

 '307':

 description: Temporary Redirect

 content:

 application/problem+json:

 schema:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/ProblemDetails'

 headers:

 Location:

 description: 'The URI of the resource located on the target NF Service Consumer (e.g. AMF) to which the request is redirected'

 required: true

 schema:

 type: string

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/404'

 '409':

 description: Conflicts

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/N1N2MessageTransferError'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 '504':

 description: Gateway Timeout

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/N1N2MessageTransferError'

 default:

 description: Unexpected error

 /ue-contexts/{ueContextId}/relocate:

 put:

 summary: Namf\_Communication RelocateUEContext service Operation

 tags:

 - Individual ueContext (Document)

 operationId: RelocateUEContext

 parameters:

 - name: ueContextId

 in: path

 description: UE Context Identifier

 required: true

 schema:

 type: string

 pattern: '^(5g-guti-[0-9]{5,6}[0-9a-fA-F]{14}|imsi-[0-9]{5,15}|nai-.+|gli-.+|gci-.+|imei-[0-9]{15}|imeisv-[0-9]{16}|.+)$'

 requestBody:

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/RelocateUeContextCreateData'

 multipart/related: # message with binary body part(s)

 schema:

 type: object

 properties: # Request parts

 jsonData:

 $ref: '#/components/schemas/RelocateUeContextCreateData'

 binaryDataN2Information:

 type: string

 format: binary

 binaryDataN2InformationExt1:

 type: string

 format: binary

 binaryDataN2InformationExt2:

 type: string

 format: binary

 binaryDataN2InformationExt3:

 type: string

 format: binary

 binaryDataN2InformationExt4:

 type: string

 format: binary

 binaryDataN2InformationExt5:

 type: string

 format: binary

 binaryDataN2InformationExt6:

 type: string

 format: binary

 binaryDataN2InformationExt7:

 type: string

 format: binary

 binaryDataN2InformationExt8:

 type: string

 format: binary

 binaryDataN2InformationExt9:

 type: string

 format: binary

 binaryDataN2InformationExt10:

 type: string

 format: binary

 binaryDataN2InformationExt11:

 type: string

 format: binary

 binaryDataN2InformationExt12:

 type: string

 format: binary

 binaryDataN2InformationExt13:

 type: string

 format: binary

 binaryDataN2InformationExt14:

 type: string

 format: binary

 binaryDataN2InformationExt15:

 type: string

 format: binary

 binaryDataN2InformationExt16:

 type: string

 format: binary

 encoding:

 jsonData:

 contentType: application/json

 binaryDataN2Information:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt1:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt2:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt3:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt4:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt5:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt6:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt7:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt8:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt9:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt10:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt11:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt12:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt13:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt14:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt15:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt16:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 required: true

 callbacks:

 onN2MessageNotify:

 '{$request.body#/n2NotifyUri}':

 post:

 summary: Namf\_Communication N2 Info Notify (UE Specific) service Operation

 tags:

 - N2 Info Notify

 operationId: N2InfoNotify

 requestBody:

 description: UE Specific N2 Information Notification

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/N2InformationNotification'

 responses:

 '200':

 description: N2 Information Notification Response.

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/N2InfoNotificationRspData'

 multipart/related: # message with binary body part(s)

 schema:

 type: object

 properties: # Request parts

 jsonData:

 $ref: '#/components/schemas/N2InfoNotificationRspData'

 binaryDataN2Information:

 type: string

 format: binary

 encoding:

 jsonData:

 contentType: application/json

 binaryDataN2Information:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 '204':

 description: Expected response to a successful callback processing

 '400':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/400'

 '403':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/403'

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 responses:

 '201':

 description: UE context successfully created.

 headers:

 Location:

 description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/namf-comm/<apiVersion>/ue-contexts/{ueContextId}'

 required: true

 schema:

 type: string

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/RelocateUeContextCreatedData'

 multipart/related: # message with binary body part(s)

 schema:

 type: object

 properties: # Request parts

 jsonData:

 $ref: '#/components/schemas/RelocateUeContextCreatedData'

 binaryDataN2Information:

 type: string

 format: binary

 binaryDataN2InformationExt1:

 type: string

 format: binary

 binaryDataN2InformationExt2:

 type: string

 format: binary

 binaryDataN2InformationExt3:

 type: string

 format: binary

 binaryDataN2InformationExt4:

 type: string

 format: binary

 binaryDataN2InformationExt5:

 type: string

 format: binary

 binaryDataN2InformationExt6:

 type: string

 format: binary

 binaryDataN2InformationExt7:

 type: string

 format: binary

 binaryDataN2InformationExt8:

 type: string

 format: binary

 binaryDataN2InformationExt9:

 type: string

 format: binary

 binaryDataN2InformationExt10:

 type: string

 format: binary

 binaryDataN2InformationExt11:

 type: string

 format: binary

 binaryDataN2InformationExt12:

 type: string

 format: binary

 binaryDataN2InformationExt13:

 type: string

 format: binary

 binaryDataN2InformationExt14:

 type: string

 format: binary

 binaryDataN2InformationExt15:

 type: string

 format: binary

 encoding:

 jsonData:

 contentType: application/json

 binaryDataN2Information:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt1:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt2:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt3:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt4:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt5:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt6:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt7:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt8:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt9:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt10:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt11:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt12:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt13:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt14:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 binaryDataN2InformationExt15:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 '400':

 description: Bad Request

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/UeContextCreateError'

 '403':

 description: Forbidden

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/UeContextCreateError'

 multipart/related: # message with binary body part(s)

 schema:

 type: object

 properties: # Response parts

 jsonData:

 $ref: '#/components/schemas/UeContextCreateError'

 binaryDataN2Information:

 type: string

 format: binary

 encoding:

 jsonData:

 contentType: application/json

 binaryDataN2Information:

 contentType: application/vnd.3gpp.ngap

 headers:

 Content-Id:

 schema:

 type: string

 '411':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/429'

 '500':

 description: Internal Server Error

 content:

 application/json:

 schema:

 $ref: '#/components/schemas/UeContextCreateError'

 '503':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/503'

 default:

 description: Unexpected error

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 UeContextCreateData:

 type: object

 properties:

 ueContext:

 $ref: '#/components/schemas/UeContext'

 targetId:

 $ref: '#/components/schemas/NgRanTargetId'

 sourceToTargetData:

 $ref: '#/components/schemas/N2InfoContent'

 pduSessionList:

 type: array

 items:

 $ref: '#/components/schemas/N2SmInformation'

 minItems: 1

 n2NotifyUri:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'

 ueRadioCapability:

 $ref: '#/components/schemas/N2InfoContent'

 ngapCause:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/NgApCause'

 supportedFeatures:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

 required:

 - ueContext

 - targetId

 - sourceToTargetData

 - pduSessionList

 UeContextCreatedData:

 type: object

 properties:

 ueContext:

 $ref: '#/components/schemas/UeContext'

 targetToSourceData:

 $ref: '#/components/schemas/N2InfoContent'

 pduSessionList:

 type: array

 items:

 $ref: '#/components/schemas/N2SmInformation'

 minItems: 1

 failedSessionList:

 type: array

 items:

 $ref: '#/components/schemas/N2SmInformation'

 minItems: 1

 supportedFeatures:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

 pcfReselectedInd:

 type: boolean

 required:

 - ueContext

 - targetToSourceData

 - pduSessionList

 RelocateUeContextCreateData:

 type: object

 properties:

 ueContext:

 $ref: '#/components/schemas/UeContext'

 targetId:

 $ref: '#/components/schemas/NgRanTargetId'

 sourceToTargetData:

 $ref: '#/components/schemas/N2InfoContent'

 n2SmInfoFromSmf:

 type: array

 items:

 $ref: '#/components/schemas/N2SmInformation'

 minItems: 1

 mmeControlFteid:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Bytes'

 n2NotifyUri:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/Uri'

 ueRadioCapability:

 $ref: '#/components/schemas/N2InfoContent'

 ngapCause:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/NgApCause'

 supportedFeatures:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

 required:

 - ueContext

 - targetId

 - sourceToTargetData

 UeContextCreatedData:

 type: object

 properties:

 ueContext:

 $ref: '#/components/schemas/UeContext'

 targetToSourceData:

 $ref: '#/components/schemas/N2InfoContent'

 pduSessionList:

 type: array

 items:

 $ref: '#/components/schemas/N2SmInformation'

 minItems: 1

 failedSessionList:

 type: array

 items:

 $ref: '#/components/schemas/N2SmInformation'

 minItems: 1

 supportedFeatures:

 $ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

 pcfReselectedInd:

 type: boolean

 required:

 - ueContext

 - targetToSourceData

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*END OF CHANGES*