**3GPP TSG-CT WG3 Meeting #135 *C3-243414***

**Hyderabad, IN, 27 - 31 May, 2024**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.525** | **CR** | **0340** | **rev** | **1** | **Current version:** | **18.5.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Correction of AMF Relocation scenario | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | C3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | UEP18, UAS\_Ph2 | | | | |  | ***Date:*** | | | 2024-04-24 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19) Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | According to the feature renegotiation procedures described in this TS, the target AMF sends, for each supported feature, the required feature information elements as specified in clause 4.2.2.1, if applicable. A note explains that when a trigger is met the AMF sends the feature information related to that trigger. However, even when there is no trigger met, there could be new features not supported by the old AMF that has information associated and that the PCF ignores. This information, when up to date, needs to be provided even if the trigger is not met.  There is also information that is provided in the creation of the resource and that cannot be modified during the lifetime of the UE Policy Association.  This is the case for pc5Capab & a2xCapab (previous pc5CapA2x,replaced with a2xCapab in C3-243345, CR#0346) attributes. These attributes need to be provided to the PCF if V2X and/or A2X features are features supported by the target AMF that were not supported by the old AMF. Otherwise this functionality will not be supported.  A correction is also required for the PCF invocation of Namf\_Communication\_N1N2MessageTransfer service operation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Clause 4.2.3.4 is updated to clarify what information is provided when feature renegotiation takes place.  Clause 4.2.4.1 is updated to clarify that the PCF invokes invokes the Namf\_Communication\_N1N2MessageTransfer service operation not only for URSP.  Clause 5.6.2.4 is updated to introduce pc5Capab & a2xCapab attributes in the PolicyAssociationUpdateRequest data type.  The OpenAPI is updated accordingly. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Missing information and unclear procedures may bring to interoperability issues. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.2.3.4; 4.2.4.1; 5.6.2.4; 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 a Backward Compatible Correction in Npcf\_UEPolicyControl OpenAPI specification.  The introduction of a2xCapab in the clause 5.6.2.4 depends on CR#0346. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* \* Start of Changes \* \* \* \*

#### 4.2.3.4 Feature renegotiation during AMF relocation

During the AMF relocation, if the new AMF received the resource URI of the individual UE Policy from the old AMF and selects the old (V-)PCF, and the feature "FeatureRenegotiation" is supported, the new AMF shall invoke the update of the UE policy association as described in clause 4.2.3.1 with the following differences:

- The new AMF shall include in the PolicyAssociationUpdateRequest data structure sent in the HTTP POST request:

a. the "FEAT\_RENEG" policy control request trigger within the "triggers" attribute;

b. the "suppFeat" attribute with the AMF supported features; and

c. for each supported feature, the required feature information elements as specified in clauses 4.2.2.1 and 4.2.3.1, if applicable.

NOTE 1: When the new AMF received from the old AMF the subscribedpolicy control request trigger(s) that depend on feature control, and a policy control request trigger is met, the required feature information included in the update request contains the report of the met policy control request trigger within the "triggers" attribute and the associated information in the corresponding attribute as described in clause 4.2.3.1, when applicable. If the new AMF supports features not previously supported by the old AMF, the new AMF will include the available information associated to the supported features, if applicable, as described in clause 4.2.2.1.

- Upon reception of the HTTP POST request, the (V-)PCF shall update the "Individual UE Policy Association" resource, determine the applicable policy and include in the PolicyUpdate data structure sent in the HTTP POST response:

NOTE 2: The determination of the applicable policy can consider the features supported by the new AMF.

a. the "suppFeat" attribute with the negotiated supported features; and

b. the complete "Individual UE Policy Association" resource representation, as specified in clause 4.2.2.1.

\* \* \* \* Next change \* \* \* \*

#### 4.2.4.1 General

The (V-)(H)-PCF may decide to update policy control request triggers, and in the roaming case, the H-PCF may decide to update the UE Policy, the V2X N2 PC5 policy, if the "V2X" feature is supported, and/or the A2X N2 PC5 policy, if the "A2X" feature is supported, and/or the 5G ProSe N2 PC5 policy, if the "ProSe" feature is supported, and/or the Ranging/SL N2 PC5 policy, if the "Ranging\_SL" feature is supported. The PCF (H-PCF in the roaming case) may decide to request the termination of the policy association.

IIf the "EpsUrsp" feature is supported and the NF consumer is a PCF for a PDU session the PCF (H-PCF in the LBO roaming scenario) may decide to update policy control request triggers and/or to update the URSP. The PCF (H-PCF in the LBO roaming scenario) may decide to request the termination of the policy association.

The(V-)(H-)PCF shall then use an Npcf\_UEPolicyControl\_UpdateNotify service operation.

The following procedures using the Npcf\_UEPolicyControl\_UpdateNotify service operation are supported:

- Policy update notification.

- Request the termination of the UE policy association.

- URSP provisioning for background Data Transfer policy.

- UE policy provisioning for V2X communications over PC5 and Uu reference points.

- UE policy provisioning for 5G ProSe.

- UE policy provisioning for Ranging/SL.

- N2 PC5 Policy (e.g. for V2X communications, for A2X communications, for 5G ProSe, for Ranging/SL) provisioning.

- UE policy provisioning for A2X communications over PC5 reference point or A2X communications over Uu reference point or both.

NOTE: The PCF derives the UE policy information and invokes the Namf\_Communication\_N1N2MessageTransfer service operation to provision it to the UE.

- URSP provisioning in EPS.

\* \* \* \* Next change \* \* \* \*

#### 5.6.2.4 Type PolicyAssociationUpdateRequest

Table 5.6.2.4-1: Definition of type PolicyAssociationUpdateRequest

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| notificationUri | Uri | O | 0..1 | Identifies the recipient of Notifications sent by the PCF. |  |
| altNotifIpv4Addrs | array(Ipv4Addr) | O | 1..N | Alternate or backup IPv4 Address(es) where to send Notifications. |  |
| altNotifIpv6Addrs | array(Ipv6Addr) | O | 1..N | Alternate or backup IPv6 Address(es) where to send Notifications. |  |
| altNotifFqdns | array(Fqdn) | O | 1..N | Alternate or backup FQDN(s) where to send Notifications. |  |
| triggers | array(RequestTrigger) | C | 1..N | Request Triggers that the NF service consumer observes. |  |
| praStatuses | map(PresenceInfo) | C | 1..N | If the Trigger "PRA\_CH" is reported, the UE presence status for tracking area for which changes of the UE presence occurred shall be provided. The "praId" attribute within the PresenceInfo data type shall also be the key of the map. The "presenceState" attribute within the PresenceInfo data type shall be supplied. The "additionalPraId" attribute within the PresenceInfo data type shall not be supplied. The "praId" attribute within the PresenceInfo data type shall include the identifier of an individual presence reporting area. |  |
| userLoc | UserLocation | C | 0..1 | The location of the served UE shall be provided for trigger "LOC\_CH". |  |
| uePolDelResult | UePolicyDeliveryResult | C | 0..1 | UE Policy Delivery Result. Shall be provided together with trigger "UE\_POLICY" when a "MANAGE UE POLICY COMPLETE" message or a "MANAGE UE POLICY COMMAND REJECT" message, as defined in Annex D.5 of 3GPP TS 24.501 [15], has been received by the V-PCF and is being forwarded to the H-PCF. |  |
| uePolTransFailNotif | UePolicyTransferFailureNotification | C | 0..1 | The UE policy transfer failure notification. Shall be the provided together with trigger "UE\_POLICY" when a response with HTTP status code 4xx or 5xx as defined in clause 5.2.2.3.1.2 of 3GPP TS 29.518 [14] or a N1N2 Transfer Failure Notification as defined in clause 5.2.2.3.2 of 3GPP TS 29.518 [14] is received after the V-PCF provisioned the UE policy by invoking the Namf\_Communication\_N1N2MessageTransfer service operation to the AMF and is notifying the H-PCF. |  |
| uePolReq | UePolicyRequest | C | 0..1 | A request for UE Policies. Shall be provided together with trigger "UE\_POLICY" when the V-PCF receives an "UE POLICY PROVISIONING REQUEST" message, as defined in clause 7.2.1.1 of 3GPP TS 24.587 [24], if the "V2X" feature is supported, and/or when the V-PCF receives an "UE POLICY PROVISIONING REQUEST" message for 5G ProSe, as defined in clause 10.4.1 of 3GPP TS 24.554 [28], if the "ProSe" feature is supported and/or when the V-PCF receives an "UE POLICY PROVISIONING REQUEST" message for A2X, as defined 3GPP TS 24.577 [32], if the "A2X" feature is supported and/or when the V-PCF receives an "UE POLICY PROVISIONING REQUEST" message for Ranging/SL, as defined 3GPP TS 24.514 [42], if the "Ranging\_SL" feature is supported.. | V2X, A2X, ProSe, Ranging\_SL |
| guami | Guami | C | 0..1 | The Globally Unique AMF Identifier (GUAMI) shall be provided by an AMF as NF service consumer during the AMF relocation. |  |
| servingNfId | NfInstanceId | C | 0..1 | It shall contain the identifier of the new AMF during the AMF relocation. |  |
| plmnId | PlmnIdNid | C | 0..1 | The serving network identity (a PLMN or an SNPN) of the served UE shall be provided for trigger "PLMN\_CH". | PlmnChange |
| connectState | CmState | C | 0..1 | The connectivity state of the served UE shall be provided for trigger "CON\_STATE\_CH". | ConnectivityStateChange |
| groupIds | array(GroupId) | C | 1..N | Internal Group Identifier(s) of the served UE. Shall be provided for trigger "GROUP\_ID\_LIST\_CHG". | GroupIdListChange |
| pc5Capab | Pc5Capability | C | 0..1 | Indicates the PC5 Capability for V2X communications supported by the UE. It shall be provided when available at the NF service consumer.  It shall be included by the target AMF only in inter-AMF mobility scenarios and for trigger "FEAT\_RENEG". It requires that the "V2X" feature is supported. | FeatureRenegotiation |
| a2xCapab | array(A2xCapability) | C | 1..N | Indicates the A2X capabilities supported by the UE. It shall be provided when available at the NF service consumer.  It shall be included by the target AMF only in inter-AMF mobility scenarios and for trigger "FEAT\_RENEG". It requires that the "A2X" feature is supported. | FeatureRenegotiation |
| proSeCapab | array(ProSeCapability) | O | 1..N | Indicates whether the UE is capable of one or more of the the following 5G ProSe Capabilities: 5G ProSe Direct Discovery, 5G ProSe Direct Communication, Layer-2 and/or Layer 3 5G ProSe UE-to-Network Relay and Layer-2 and/or Layer 3 5G ProSe Remote UE, and when the "ProSe\_Ph2" feature is supported, Layer-2 and/or Layer-3 5G ProSe UE-to-UE Relay and Layer-2 and/or Layer-3 5G ProSe End UE. | ProSe |
| confSnssais | array(ConfiguredSnssai) | C | 1..N | The Configured NSSAI for the serving PLMN, and optionally the mapped S-NSSAI value of home network corresponding to the configured S-NSSAI in the serving PLMN. It shall be provided in case of roaming for trigger "CONF\_NSSAI\_CH" or for trigger "NON\_3GPP\_NODE\_RESELECTION". (NOTE) | SliceAwareANDSP, NssaiChange |
| n3gNodeReSel | Non3gppAccess | O | 0..1 | A wrongly selected non-3gpp access node. It shall be provided when available at the NF service consumer and the "NON\_3GPP\_NODE\_RESELECTION" trigger is reported within the "triggers" attribute. | SliceAwareANDSP |
| satBackhaulCategory | SatelliteBackhaulCategory | C | 0..1 | Indicates types of the satellite backhaul based on satellite types (when satellite backhaul is used) or non-satellite backhaul (when satellite backhaul is not used).  It shall be provided for trigger "SAT\_CATEGORY\_CHG". | EnSatBackhaulCategoryChg |
| urspEnfReport | map(UrspEnforcementPduSession) | O | 1..N | Represents information about the enforced URSP rule(s) in one or more PDU sessions for the affected UE.  The key of the map is a character string that represents an integer value (it may correspond with a PDU session identifier).  It shall be present when the notified policy control request trigger is "URSP\_ENF\_INFO". | URSPEnforcement |
| vpsUePolGuidance | map(UePolicyParameters) | O | 1..N | Contains the service parameter used to guide the VPLMN-specific URSP rule determination and may contain the subscription to VPLMN-specific URSP delivery outcome. The key of the map represents the AF request to guide VPLMN-specific URSP rules.  This attribute only applies in roaming and when the V-PCF is the NF service consumer. | VPLMNSpecificURSP |
| lboRoamInfo | array(LboRoamingInformation) | O | 1..N | Contains LBO roaming information for a DNN and S-NSSAI combination(s).  This attribute only applies in roaming and when the AMF is the NF service consumer. | VPLMNSpecificURSP |
| accessTypes | array(AccessType) | C | 1..N | The Access Type(s) where the served UE is camping. It shall be provided for trigger "ACCESS\_TYPE\_CH" when the access type(s) changes or when the access type(s) is initially reported as consequence of the provisioning of the trigger. | AccessChange |
| ratTypes | array(RatType) | C | 1..N | The RAT Type(s), if available, for the reported "accessTypes" where the served UE is camping. It shall be provided, if available, for trigger "ACCESS\_TYPE\_CH" when the access type(s) changes or when the access type(s) is initially reported as consequence of the provisioning of the trigger. | AccessChange |
| suppFeat | SupportedFeatures | C | 0..1 | Indicates the features supported by the NF service consumer. It shall be included by the target AMF in inter-AMF mobility scenarios for trigger "FEAT\_RENEG". | FeatureRenegotiation |
| rangSlCapab | array(RangSLCapability) | O | 1..N | Contains the Ranging/SL related UE capabilities. | Ranging\_SL |
| NOTE: The "mappedHomeSnssai" attribute within the ConfiguredSnssai data type may only be provided if the "NssaiChange" feature is supported. | | | | | |

\* \* \* \* Next change \* \* \* \*

# A.2 Npcf\_UEPolicyControl API

openapi: 3.0.0

info:

version: 1.3.0-alpha.6

title: Npcf\_UEPolicyControl

description: |

UE Policy Control Service.

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externalDocs:

description: 3GPP TS 29.525 V18.5.0; 5G System; UE Policy Control Service.

url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.525/'

servers:

- url: '{apiRoot}/npcf-ue-policy-control/v1'

variables:

apiRoot:

default: https://example.com

description: apiRoot as defined in clause 4.4 of 3GPP TS 29.501

security:

- {}

- oAuth2ClientCredentials:

- npcf-ue-policy-control

paths:

/policies:

post:

operationId: CreateIndividualUEPolicyAssociation

summary: Create individual UE policy association.

tags:

- UE Policy Associations (Collection)

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Created

content:

application/json:

schema:

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

headers:

Location:

description: >

Contains the URI of the newly created resource, according to the structure

{apiRoot}/npcf-ue-policy-control/v1/policies/{polAssoId}'

required: true

schema:

type: string

'400':

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

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'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'

'502':

$ref: 'TS29571\_CommonData.yaml#/components/responses/502'

'503':

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

default:

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

callbacks:

policyUpdateNotification:

'{$request.body#/notificationUri}/update':

post:

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'200':

description: >

OK. The current applicable values corresponding to the policy control request

trigger is reported

content:

application/json:

schema:

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

'204':

description: No Content, Notification was successful

'307':

$ref: 'TS29571\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29571\_CommonData.yaml#/components/responses/308'

'400':

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

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'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'

'502':

$ref: 'TS29571\_CommonData.yaml#/components/responses/502'

'503':

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

default:

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

policyAssocitionTerminationRequestNotification:

'{$request.body#/notificationUri}/terminate':

post:

requestBody:

required: true

content:

application/json:

schema:

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

responses:

'204':

description: No Content, Notification was successful

'307':

$ref: 'TS29571\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29571\_CommonData.yaml#/components/responses/308'

'400':

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

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'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'

'502':

$ref: 'TS29571\_CommonData.yaml#/components/responses/502'

'503':

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

default:

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

/policies/{polAssoId}:

get:

operationId: ReadIndividualUEPolicyAssociation

summary: Read individual UE policy association.

tags:

- Individual UE Policy Association (Document)

parameters:

- name: polAssoId

in: path

description: Identifier of a policy association

required: true

schema:

type: string

responses:

'200':

description: OK. Resource representation is returned

content:

application/json:

schema:

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

'307':

$ref: 'TS29571\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29571\_CommonData.yaml#/components/responses/308'

'400':

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

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'406':

$ref: 'TS29571\_CommonData.yaml#/components/responses/406'

'429':

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

'500':

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

'502':

$ref: 'TS29571\_CommonData.yaml#/components/responses/502'

'503':

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

default:

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

delete:

operationId: DeleteIndividualUEPolicyAssociation

summary: Delete individual UE policy association.

tags:

- Individual UE Policy Association (Document)

parameters:

- name: polAssoId

in: path

description: Identifier of a policy association

required: true

schema:

type: string

responses:

'204':

description: No Content. Resource was successfully deleted

'307':

$ref: 'TS29571\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29571\_CommonData.yaml#/components/responses/308'

'400':

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

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'403':

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

'404':

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

'429':

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

'500':

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

'502':

$ref: 'TS29571\_CommonData.yaml#/components/responses/502'

'503':

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

default:

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

/policies/{polAssoId}/update:

post:

operationId: ReportObservedEventTriggersForIndividualUEPolicyAssociation

summary: >

Report observed event triggers and possibly obtain updated policies for an individual UE

policy association.

tags:

- Individual UE Policy Association (Document)

requestBody:

required: true

content:

application/json:

schema:

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

parameters:

- name: polAssoId

in: path

description: Identifier of a policy association

required: true

schema:

type: string

responses:

'200':

description: OK. Updated policies are returned

content:

application/json:

schema:

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

'307':

$ref: 'TS29571\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29571\_CommonData.yaml#/components/responses/308'

'400':

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

'401':

$ref: 'TS29571\_CommonData.yaml#/components/responses/401'

'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'

'502':

$ref: 'TS29571\_CommonData.yaml#/components/responses/502'

'503':

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

default:

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

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{nrfApiRoot}/oauth2/token'

scopes:

npcf-ue-policy-control: Access to the Npcf\_UEPolicyControl API

schemas:

PolicyAssociation:

description: >

Contains the description of a policy association that is returned by the PCF when a policy

Association is created, updated, or read.

type: object

properties:

request:

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

uePolicy:

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

n2Pc5Pol:

$ref: 'TS29518\_Namf\_Communication.yaml#/components/schemas/N2InfoContent'

n2Pc5PolA2x:

$ref: 'TS29518\_Namf\_Communication.yaml#/components/schemas/N2InfoContent'

n2Pc5ProSePol:

$ref: 'TS29518\_Namf\_Communication.yaml#/components/schemas/N2InfoContent'

triggers:

type: array

items:

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

minItems: 1

description: >

Request Triggers that the PCF subscribes.

pras:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the presence reporting area(s) for which reporting was requested.

The praId attribute within the PresenceInfoRm data type is the key of the map.

andspDelInd:

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

andspInd:

description: >

Indication of UE support of ANDSP. When set to true, it indicates the UE supports ANDSP,

when set to false it indicates the UE does not support ANDSP.

type: boolean

pduSessions:

type: array

items:

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

minItems: 1

description: Combination of DNN and S-NSSAIs for which LBO information is requested.

suppFeat:

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

n2Pc5RsppPol:

$ref: 'TS29518\_Namf\_Communication.yaml#/components/schemas/N2InfoContent'

required:

- suppFeat

PolicyAssociationRequest:

description: >

Represents information that the NF service consumer provides when requesting the creation of

a policy association.

type: object

properties:

notificationUri:

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

altNotifIpv4Addrs:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'

minItems: 1

description: Alternate or backup IPv4 Address(es) where to send Notifications.

altNotifIpv6Addrs:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Addr'

minItems: 1

description: Alternate or backup IPv6 Address(es) where to send Notifications.

altNotifFqdns:

type: array

items:

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

minItems: 1

description: Alternate or backup FQDN(s) where to send Notifications.

supi:

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

gpsi:

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

accessType:

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

accessTypes:

type: array

items:

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

minItems: 1

pei:

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

userLoc:

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

timeZone:

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

servingPlmn:

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

ratType:

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

ratTypes:

type: array

items:

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

minItems: 1

groupIds:

type: array

items:

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

minItems: 1

hPcfId:

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

uePolReq:

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

guami:

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

serviceName:

$ref: 'TS29510\_Nnrf\_NFManagement.yaml#/components/schemas/ServiceName'

servingNfId:

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

pc5Capab:

$ref: '#/components/schemas/Pc5Capability'

pc5CapA2x:

$ref: '#/components/schemas/Pc5Capability'

proSeCapab:

type: array

items:

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

minItems: 1

confSnssais:

type: array

items:

$ref: 'TS29531\_Nnssf\_NSSelection.yaml#/components/schemas/ConfiguredSnssai'

minItems: 1

description: >

The Configured NSSAI for the serving PLMN, and the mapped S-NSSAI value of home

network corresponding to the configured S-NSSAI in the serving PLMN.

n3gNodeReSel:

$ref: '#/components/schemas/Non3gppAccess'

satBackhaulCategory:

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

5gsToEpsMob:

type: boolean

description: >

It indicates the UE Policy Association is triggered by a 5GS to EPS mobility

scenario.

vpsUePolGuidance:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the service parameter used to guide the VPLMN-specific URSP and may contain

the subscription to VPLMN-specific URSP delivery outcome.

The key of the map represents the AF request to guide VPLMN-specific URSP rules.

This attribute only applies in roaming and when the V-PCF is the NF service consumer.

lboRoamInfo:

type: array

items:

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

minItems: 1

description: >

Contains LBO roaming information for DNN and S-NSSAI combination(s).

This attribute only applies in roaming and when the AMF is the NF service consumer.

chfInfo:

$ref: 'TS29512\_Npcf\_SMPolicyControl.yaml#/components/schemas/ChargingInformation'

suppFeat:

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

rangSlCapab:

type: array

items:

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

minItems: 1

required:

- notificationUri

- suppFeat

- supi

PolicyAssociationUpdateRequest:

description: >

Represents Information that the NF service consumer provides when requesting the update of

a policy association.

type: object

properties:

notificationUri:

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

altNotifIpv4Addrs:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'

minItems: 1

description: Alternate or backup IPv4 Address(es) where to send Notifications.

altNotifIpv6Addrs:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Addr'

minItems: 1

description: Alternate or backup IPv6 Address(es) where to send Notifications.

altNotifFqdns:

type: array

items:

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

minItems: 1

description: Alternate or backup FQDN(s) where to send Notifications.

triggers:

type: array

items:

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

minItems: 1

description: Request Triggers that the NF service consumer observes.

praStatuses:

type: object

additionalProperties:

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

description: >

Contains the UE presence status for tracking area for which changes of the UE presence

occurred. The praId attribute within the PresenceInfo data type is the key of the map.

minProperties: 1

userLoc:

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

uePolDelResult:

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

uePolTransFailNotif:

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

uePolReq:

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

guami:

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

servingNfId:

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

plmnId:

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

connectState:

$ref: 'TS29518\_Namf\_EventExposure.yaml#/components/schemas/CmState'

groupIds:

type: array

items:

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

minItems: 1

pc5Capab:

$ref: '#/components/schemas/Pc5Capability'

a2xCapab:

type: array

items:

$ref: '#/components/schemas/A2xCapability'

minItems: 1

proSeCapab:

type: array

items:

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

minItems: 1

confSnssais:

type: array

items:

$ref: 'TS29531\_Nnssf\_NSSelection.yaml#/components/schemas/ConfiguredSnssai'

minItems: 1

description: >

The Configured NSSAI for the serving PLMN, and the mapped S-NSSAI value of home

network corresponding to the configured S-NSSAI in the serving PLMN.

satBackhaulCategory:

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

urspEnfRep:

type: object

additionalProperties:

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

description: >

Contains information about the enforced URSP rule(s) in one or more PDU sessions.

The key of the map is a character string that represents an integer value.

minProperties: 1

vpsUePolGuidance:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the service parameter used to guide the VPLMN-specific URSP and may contain

the subscription to VPLMN-specific URSP delivery outcome.

The key of the map represents the AF request to guide VPLMN-specific URSP rules.

This attribute only applies in roaming and when the V-PCF is the NF service consumer.

lboRoamInfo:

type: array

items:

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

minItems: 1

description: >

Contains LBO roaming information for DNN and S-NSSAI combination(s).

This attribute only applies in roaming and when the AMF is the NF service consumer.

accessTypes:

type: array

items:

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

minItems: 1

ratTypes:

type: array

items:

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

minItems: 1

suppFeat:

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

rangSlCapab:

type: array

items:

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

minItems: 1

PolicyUpdate:

description: >

Represents updated policies that the PCF provides in a notification or in the reply to an

Update Request.

type: object

properties:

resourceUri:

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

uePolicy:

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

n2Pc5Pol:

$ref: 'TS29518\_Namf\_Communication.yaml#/components/schemas/N2InfoContent'

n2Pc5PolA2x:

$ref: 'TS29518\_Namf\_Communication.yaml#/components/schemas/N2InfoContent'

n2Pc5ProSePol:

$ref: 'TS29518\_Namf\_Communication.yaml#/components/schemas/N2InfoContent'

triggers:

type: array

items:

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

minItems: 1

nullable: true

description: >

Request Triggers that the PCF subscribes.

pras:

type: object

additionalProperties:

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

description: >

Contains the presence reporting area(s) for which reporting was requested.

The praId attribute within the PresenceInfo data type is the key of the map.

minProperties: 1

nullable: true

andspDelInd:

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

delivReport:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the delivery outcome of the VPLMN-specific URSP.

The key of the map represents the AF request of the corresponding subscription, i.e. its

value shall match the key that was previously provided by the V-PCF in the

vpsUePolGuidance attribute.

This attribute only applies in roaming and when the V-PCF is the NF service consumer.

pduSessions:

type: array

items:

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

minItems: 1

description: >

Combination of DNN and S-NSSAIs for which LBO information is requested.

nullable: true

suppFeat:

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

n2Pc5RsppPol:

$ref: 'TS29518\_Namf\_Communication.yaml#/components/schemas/N2InfoContent'

required:

- resourceUri

TerminationNotification:

description: >

Represents a request to terminate a policy association that the PCF provides in a

notification.

type: object

properties:

resourceUri:

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

cause:

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

required:

- resourceUri

- cause

UePolicyTransferFailureNotification:

description: >

Represents information on the failure of a UE policy transfer to the UE because the UE is not

reachable.

type: object

properties:

cause:

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

retryAfter:

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

ptis:

type: array

items:

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

minItems: 1

required:

- cause

- ptis

UeRequestedValueRep:

description: >

Contains the current applicable values corresponding to the policy control request triggers.

type: object

properties:

userLoc:

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

praStatuses:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the UE presence statuses for tracking areas. The praId attribute within the

PresenceInfo data type is the key of the map.

plmnId:

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

connectState:

$ref: 'TS29518\_Namf\_EventExposure.yaml#/components/schemas/CmState'

confSnssais:

type: array

items:

$ref: 'TS29531\_Nnssf\_NSSelection.yaml#/components/schemas/ConfiguredSnssai'

minItems: 1

description: >

The Configured NSSAI for the serving PLMN, and the mapped S-NSSAI value of home

network corresponding to the configured S-NSSAI in the serving PLMN.

satBackhaulCategory:

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

urspEnfRep:

type: object

additionalProperties:

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

description: >

Contains information about the enforced URSP rule(s) in one or more PDU sessions.

The key of the map is a character string that represents an integer value.

minProperties: 1

lboRoamInfo:

type: array

items:

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

minItems: 1

description: >

Contains LBO roaming information for DNN and S-NSSAI combination(s).

accessTypes:

type: array

items:

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

minItems: 1

ratTypes:

type: array

items:

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

minItems: 1

UePolicyParameters:

description: >

Contains the service parameters used to guide the VPLMN-specific URSP rule determination.

type: object

properties:

urspGuidance:

type: array

items:

$ref: 'TS29522\_ServiceParameter.yaml#/components/schemas/UrspRuleRequest'

minItems: 1

description: >

Contains the service parameter used to guide the VPLMN-specific URSP.

deliveryEvents:

type: array

items:

$ref: 'TS29522\_ServiceParameter.yaml#/components/schemas/Event'

minItems: 1

description: >

AF subscribed event(s) notifications related to AF provisioned guidance

for VPLMN-specific URSP rules.

LboRoamingInformation:

description: >

Contains LBO roaming information for a DNN and S-NSSAI.

type: object

properties:

lboRoamAllowed:

type: boolean

description: >

Indicates whether LBO for the DNN and S-NSSAI is allowed when roaming.

dnn:

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

snssai:

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

required:

- dnn

- snssai

UrspEnforcementPduSession:

description: >

Represents URSP rule enforcement information for a PDU session.

type: object

required:

- urspEnfInfo

properties:

urspEnfInfo:

$ref: 'TS29512\_Npcf\_SMPolicyControl.yaml#/components/schemas/UrspEnforcementInfo'

sscMode:

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

ueReqDnn:

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

redundantPduSessionInfo:

$ref: 'TS29502\_Nsmf\_PDUSession.yaml#/components/schemas/RedundantPduSessionInformation'

accessType:

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

ratType:

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

pduSessInfo:

$ref: 'TS29523\_Npcf\_EventExposure.yaml#/components/schemas/PduSessionInformation'

UePolicyNotification:

description: >

Contains the delivery outcome of VPLMN-specific URSP rules.

type: object

properties:

eventNotifs:

type: array

items:

$ref: 'TS29523\_Npcf\_EventExposure.yaml#/components/schemas/PcEventNotification'

minItems: 1

description: >

Represents the events to be reported according to the subscription to notifications

of VPLMN-specific URSP delivery outcome events.

UePolicy:

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

UePolicyDeliveryResult:

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

UePolicyRequest:

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

RequestTrigger:

anyOf:

- type: string

enum:

- LOC\_CH

- PRA\_CH

- UE\_POLICY

- PLMN\_CH

- CON\_STATE\_CH

- GROUP\_ID\_LIST\_CHG

- UE\_CAP\_CH

- SAT\_CATEGORY\_CHG

- NON\_3GPP\_NODE\_RESELECTION

- CONF\_NSSAI\_CH

- LBO\_INFO\_CH

- FEAT\_RENEG

- URSP\_ENF\_INFO

- ACCESS\_TYPE\_CH

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents the possible request triggers.

Possible values are:

- LOC\_CH: Location change (tracking area). The tracking area of the UE has changed.

- PRA\_CH: Change of UE presence in PRA. The AMF reports the current presence status

of the UE in a Presence Reporting Area, and notifies that the UE enters/leaves the

Presence Reporting Area.

- UE\_POLICY: A MANAGE UE POLICY COMPLETE message or a MANAGE UE POLICY COMMAND REJECT

message, as defined in Annex D.5 of 3GPP TS 24.501 or a "UE POLICY PROVISIONING REQUEST"

message, as defined in clause 7.2.1.1 of 3GPP TS 24.587, has been received by the AMF

and is being forwarded.

- PLMN\_CH: PLMN change. the serving PLMN of UE has changed.

- CON\_STATE\_CH: Connectivity state change: the connectivity state of UE has changed.

- GROUP\_ID\_LIST\_CHG: UE Internal Group Identifier(s) has changed. This policy

control request

trigger does not require a subscription.

- UE\_CAP\_CH: UE Capabilities change: the UE provided 5G ProSe capabilities have changed.

This policy control request trigger does not require subscription.

- SAT\_CATEGORY\_CHG: Indicates that the AMF has detected a change between different satellite

category, or non-satellite backhaul.

- NON\_3GPP\_NODE\_RESELECTION: The UE has connected to a wrong non-3GPP access node that

does not match its subscribed S-NSSAI(s). This policy control request trigger does not

require a subscription.

- CONF\_NSSAI\_CH: Configured NSSAI change. Indicates that the configured NSSAI has changed.

- LBO\_INFO\_CH: LBO information change. The AMF reports LBO roaming allowed or not allowed

for the requested DNN(s) and S-NSSAI(s). This policy control request trigger only applies

in roaming scenarios when the NF service consumer is the AMF.

- FEAT\_RENEG: The NF service consumer notifies that the target AMF is requesting feature

re-negotiation.

- URSP\_ENF\_INFO: The V-PCF has received URSP rule enforcement information for one or more

URSP rules. This trigger applies in roaming scenarios and to the V-PCF.

- ACCESS\_TYPE\_CH: Access Type change. The registered access type and RAT type

has changed, an access type and RAT type is added or removed.

PolicyAssociationReleaseCause:

anyOf:

- type: string

enum:

- UNSPECIFIED

- UE\_SUBSCRIPTION

- INSUFFICIENT\_RES

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents the cause why the PCF requests the policy association termination.

Possible values are:

- UNSPECIFIED: This value is used for unspecified reasons.

- UE\_SUBSCRIPTION: This value is used to indicate that the policy association needs to be

terminated because the subscription of UE has changed (e.g. was removed).

- INSUFFICIENT\_RES: This value is used to indicate that the server is overloaded and needs

to abort the policy association.

Pc5Capability:

anyOf:

- type: string

enum:

- LTE\_PC5

- NR\_PC5

- LTE\_NR\_PC5

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents the specific PC5 RAT(s) which the UE supports for V2X or A2X communications over

PC5 reference point.

Possible values are:

- LTE\_PC5: This value is used to indicate that UE supports PC5 LTE RAT for V2X

communications or A2X communications over the PC5 reference point

over the PC5 reference point.

- NR\_PC5: This value is used to indicate that UE supports PC5 NR RAT for V2X communications

or A2X communications over the PC5 reference point.

- LTE\_NR\_PC5: This value is used to indicate that UE supports both PC5 LTE and NR RAT for

V2X communications or A2X communications over the PC5 reference point.

ProSeCapability:

anyOf:

- type: string

enum:

- PROSE\_DD

- PROSE\_DC

- PROSE\_L2\_U2N\_RELAY

- PROSE\_L3\_U2N\_RELAY

- PROSE\_L2\_REMOTE\_UE

- PROSE\_L3\_REMOTE\_UE

- PROSE\_L2\_U2U\_RELAY

- PROSE\_L3\_U2U\_RELAY

- PROSE\_L2\_END\_UE

- PROSE\_L3\_END\_UE

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

the content defined in the present version of this API.

description: |

Represents the 5G ProSe capabilities.

Possible values are:

- PROSE\_DD: This value is used to indicate that 5G ProSe Direct Discovery is supported

by the UE.

- PROSE\_DC: This value is used to indicate that 5G ProSe Direct Communication is supported

by the UE.

- PROSE\_L2\_U2N\_RELAY: This value is used to indicate that Layer-2 5G ProSe UE-to-Network

Relay is supported by the UE.

- PROSE\_L3\_U2N\_RELAY: This value is used to indicate that Layer-3 5G ProSe UE-to-Network

Relay is supported by the UE.

- PROSE\_L2\_REMOTE\_UE: This value is used to indicate that Layer-2 5G ProSe Remote UE is

supported by the UE.

- PROSE\_L3\_REMOTE\_UE: This value is used to indicate that Layer-3 5G ProSe Remote UE is

supported by the UE.

- PROSE\_L2\_U2U\_RELAY: This value is used to indicate that Layer-2 5G ProSe UE-to-UE

Relay is supported by the UE.

- PROSE\_L3\_U2U\_RELAY: This value is used to indicate that Layer-3 5G ProSe UE-to-UE

Relay is supported by the UE.

- PROSE\_L2\_END\_UE: This value is used to indicate that Layer-2 5G ProSe End UE is

supported by the UE.

- PROSE\_L3\_END\_UE: This value is used to indicate that Layer-3 5G ProSe End UE is

supported by the UE.

Non3gppAccess:

anyOf:

- type: string

enum:

- N3IWF

- TNGF

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents a non-3gpp access node.

Possible values are:

- N3IWF: Non-3gpp Interworking Function.

- TNGF: Trusted Non-3gpp Gateway Function.

N1N2MessTransferErrorReply:

anyOf:

- type: string

enum:

- UE\_NOT\_REACHABLE

- UNSPECIFIED

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents an N1N2 Message Transfer error.

Possible values are:

- UE\_NOT\_REACHABLE: The UE is not reachable for paging.

- UNSPECIFIED: Unspecified error.

RangSLCapability:

anyOf:

- type: string

enum:

- PC5\_RANGING\_SL

- type: string

description: >

This string provides forward-compatibility with future extensions to the enumeration

but is not used to encode content defined in the present version of this API.

description: |

Indicates the Ranging and Sidelink Capability.

Possible values are:

- PC5\_RANGING\_SL: Indicates that the PC5 Capability for Ranging and Sidelink is supported

by the UE.

PolicyStatus:

anyOf:

- type: string

enum:

- CONFIGURED

- NOT\_CONFIGURED

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents the configuration status of a UE Policy in the UE.

Possible values are:

- CONFIGURED: The UE Policy is configured in the UE.

- NOT\_CONFIGURED: The UE Policy is not configured in the UE.

#

UePolicyTransferFailureCause:

description: UE Policy Transfer Failure Cause.

anyOf:

- $ref: 'TS29518\_Namf\_Communication.yaml#/components/schemas/N1N2MessageTransferCause'

- $ref: '#/components/schemas/N1N2MessTransferErrorReply'

\* \* \* \* End of change \* \* \* \*