**3GPP TSG CT WG3 Meeting #142 *C3-253xxx***

**Goteborg, SE, 25th – 29th August, 2025 was C3-253354**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **0352** | **rev** | **1** | **Current version:** |  |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | |
| ***Title:*** | Updates to complete the support of providing the CHF Group ID | | | | | | | | |
|  |  | | | | | | | | |
| ***Source to WG:*** | Huawei, China Telecom, Ericsson, Verizon | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | |
|  |  | | | | | | | | |
| ***Work item code:*** | TEI19, 5GS\_Ph1-CT | | | | |  | ***Date:*** | | 2025-08-xx |
|  |  | | | |  | |  | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | |  |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  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:*** | | | As per the reply LSs from SA2 in S2-2505936 (and the related agreed CR#1558 to TS 23.503 in S2-2506094) and SA5 in S5-253101, the CHF group ID information is defined as a seprate additional information outside of the charging information (i.e., CHF address information).  This needs hence to be reflected in stage 3. | | | | | | |
|  | | |  | | | | | | |
| ***Summary of change:*** | | | This CR proposes to:   * Address the above-detailed necessary updates/corrections. | | | | | | |
|  | | |  | | | | | | |
| ***Consequences if not approved:*** | | | * The above-detailed necessary updates/corrections are not addressed and the new functionality to provide the CHF Group ID to the SMF is not completed in stage 3. | | | | | | |
|  | |  | | | | | | | |
| ***Clauses affected:*** | | 4.2.2.4, 5.6.1, 5.6.2.2, 5.8, 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 backwards compatible new feature and corrections to the OpenAPI descriptions of the following APIs:   * TS29507\_Npcf\_AMPolicyControl.yaml | | | | | | | |
|  | |  | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | |

\* \* \* \* Start of changes \* \* \* \*

4.2.2.4 Provisioning of charging related information

This functionality only applies to non-roaming scenarios.

When the "SLAMUP" feature is supported, the PCF may provide the AMF with the charging function information for the UE, i.e., the CHF address(es), and if available, the associated CHF instance ID(s) and CHF set ID(s), during the AM Policy Association establishment procedure based on the home operator policy.

The PCF may retrieve the charging function information as described in 3GPP TS 29.512 [27], clause 4.2.2.3.1.

In order to provision the CHF information to the AMF, the PCF shall include within the PolicyAssociation data structure the "chfInfo" attribute containing the CHF address information. When the "SLAMUP" feature is supported, the "ChargingInformation" data type shall include the primary CHF address, within the "primaryChfAddress" attribute and, if available, the secondary CHF address, within the "secondaryChfAddress" attribute. When the PCF is aware that the CHF supports redundancy based on NF Set concepts as described in 3GPP TS 29.500 [5] (e.g. based on configuration), the "chfInfo" attribute shall include the CHF address, encoded within the"primaryChfAddress" attribute and the CHF instance, encoded within the "primaryChfInstanceId" attribute, and primary CHF set id, encoded within the "primaryChfSetId". The primary CHF information may be also complemented by secondary CHF information, if available.

The PCF provided CHF information shall overwrite any predefined CHF information configured at the AMF.

If there is no home operator policy indicating that the same CHF shall be selected by the PCF for the UE and by the AMF then no charging information is provisioned by the PCF, and the AMF shall select the charging function as specified in 3GPP TS 32.256 [34], clause 5.1.3.

\* \* \* \* Next changes \* \* \* \*

### 5.6.1 General

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

Table 5.6.1-1 specifies the data types defined for the Npcf\_AMPolicyControl service based interface protocol.

Table 5.6.1-1: Npcf\_AMPolicyControl specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Section defined | Description | Applicability |
| AmRequestedValueRep | 5.6.2.9 | Contains the current applicable values corresponding to the policy control request triggers. | ImmediateReport |
| AsTimeDistributionParam | 5.6.2.10 | Contains the 5G access stratum time distribution parameters. | 5GAccessStratumTime |
| CandidateForReplacement | 5.6.2.8 | Contains the list of candidate DNNs for replacement per S-NSSAI. | DNNReplacementControl |
| PolicyAssociation | 5.6.2.2 | Description of a policy association that is returned by the PCF when a policy Association is created, or read. |  |
| PolicyAssociationReleaseCause | 5.6.3.4 | The cause why the PCF requests the termination of the policy association. |  |
| PolicyAssociationRequest | 5.6.2.3 | Information that NF service consumer provides when requesting the creation of a policy association. |  |
| PolicyAssociationUpdateRequest | 5.6.2.4 | Information that NF service consumer provides when requesting the update of a policy association. |  |
| PolicyUpdate | 5.6.2.5 | Updated policies that the PCF provides in a notification or in the reply to an Update Request. |  |
| RequestTrigger | 5.6.3.3 | Enumeration of possible Request Triggers. |  |
| SliceUsgCtrlInfo | 5.6.2.12 | Represents network slice usage control related information. | NetSliceUsageCtrl |
| SmfSelectionData | 5.6.2.7 | Includes the SMF Selection information that may be replaced by the PCF. | DNNReplacementControl |
| SnssaiPartRejected | 5.6.2.13 | Represents a S-NSSAI rejected partially in the RA. | PartNetSliceSupport |
| TerminationNotification | 5.6.2.6 | Request to terminate a policy Association that the PCF provides in a notification. |  |
| UeSliceMbr | 5.6.2.11 | Contains a UE-Slice-MBR and the related information. | UE-Slice-MBR\_Authorization |

Table 5.6.1-2 specifies data types re-used by the Npcf\_AMPolicyControl 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 Npcf\_AMPolicyControl service based interface.

Table 5.6.1-2: Npcf\_AMPolicyControl re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| AccessType | 3GPP TS 29.571 [11] | Represents an access type. |  |
| Ambr | 3GPP TS 29.571 [11] | Aggregated Maximum Bit Rate. | UE-AMBR\_Authorization |
| ChargingInformation | 3GPP TS 29.512 [27] | Represents the charging address information. | SLAMUP |
| ClockQualityAcceptanceCriterionRm | 3GPP TS 29.571 [11] | Indicates the Clock quality acceptance criteria information. | NetTimeSyncStatus |
| ClockQualityDetailLevelRm | 3GPP TS 29.571 [11] | Contains the clock quality detail level information, that indicates whether it consists of clock quality metrics or acceptance indication. | NetTimeSyncStatus |
| Dnn | 3GPP TS 29.571 [11] | DNN | DNNReplacementControl |
| DurationSec | 3GPP TS 29.571 [11] | Duration in number of seconds. | RFSPValidityTime |
| DurationSecRm | 3GPP TS 29.571 [11] | This data type is defined in the same way as the "DurationSec" data type, but with the OpenAPI "nullable: true" property. |  |
| EnergySavingIndicator | 3GPP TS 29.571 [11] | Represents different Energy Saving indication values. | Energy |
| Fqdn | 3GPP TS 29.571 [11] | FQDN |  |
| Gpsi | 3GPP TS 29.571 [11] | Generic Public Subscription Identifier |  |
| GroupId | 3GPP TS 29.571 [11] | Represents the identifier of a group of UEs. |  |
| Guami | 3GPP TS 29.571 [11] | Globally Unique AMF Identifier |  |
| Ipv4Addr | 3GPP TS 29.571 [11] | Represents an IPv4 address. |  |
| Ipv6Addr | 3GPP TS 29.571 [11] | Represents an IPv6 address. |  |
| MappingOfSnssai | 3GPP TS 29.531 [24] | Identifies the mapping of an S-NSSAI of the Allowed NSSAI or the Partially Allowed NSSAI to the corresponding S-NSSAI of the HPLMN. | DNNReplacementControl  PartNetSliceSupport |
| NfGroupId | 3GPP TS 29.571 [11] | Represents the NF Group identifier. | CHFGroup |
| NwdafData | 3GPP TS 29.512 [27] | Indicates an NWDAF instance ID used for the UE and its associated Analytics ID(s) consumed by the NF service consumer. | EneNA |
| PartiallyAllowedSnssai | 3GPP TS 29.571 [11] | Represents the S-NSSAI that is partially allowed in the Registration Area, | NetSliceRepl  PartNetSliceSupport |
| PcfUeCallbackInfo | 3GPP TS 29.571 [11] | Contains the PCF for the UE information necessary for the PCF for the PDU session to send Establishment and Termination event. | AMInfluence |
| PduSessionInfo | 3GPP TS 29.571 [11] | Contains information related to a PDU session. | AMInfluence |
| Pei | 3GPP TS 29.571 [11] | Permanent Equipment Identifier |  |
| PlmnIdNid | 3GPP TS 29.571 [11] | Identifies the network: PLMN Identifier or the SNPN Identifier (the PLMN Identifier and the NID). |  |
| PresenceInfo | 3GPP TS 29.571 [11] | Presence reporting area information |  |
| PresenceInfoRm | 3GPP TS 29.571 [11] | This data type is defined in the same way as the "PresenceInfo" data type, but with the OpenAPI "nullable: true" property. |  |
| ProblemDetails | 3GPP TS 29.571 [11] | Represents error related information. |  |
| RedirectResponse | 3GPP TS 29.571 [11] | Contains redirection related information. | ES3XX |
| Uri | 3GPP TS 29.571 [11] | Represents a URI. |  |
| UserLocation | 3GPP TS 29.571 [11] | Represents user location information. |  |
| RatType | 3GPP TS 29.571 [11] | Represent a RAT type. |  |
| RfspIndex | 3GPP TS 29.571 [11] | Represent an RFSP Index. |  |
| ServiceAreaRestriction | 3GPP TS 29.571 [11] | Within the areas attribute, only tracking area codes shall be included. |  |
| ServiceName | 3GPP TS 29.510 [13] | Name of the service instance. |  |
| SliceMbr | 3GPP TS 29.571 [11] | Contains the slice Maximum Bit Rate including UL and DL. | UE-Slice-MBR\_Authorization |
| SliceReplReq | 3GPP TS 29.534 [26] | Represents the requested Network Slice Replacement requirements. | AfNetSliceRepl |
| SliceReplOutcomeInfo | 3GPP TS 29.534 [26] | Represents the the AF requested Network Slice Replacement outcome related information. | AfNetSliceRepl |
| Snssai | 3GPP TS 29.571 [11] | Identifies an S-NSSAI. | SliceSupport, TargetNSSAI, DNNReplacementControl  UE-Slice-MBR\_Authorization  NetSliceRepl  PartNetSliceSupport |
| SnssaiReplaceInfo | 3GPP TS 29.571 [11] | Represents the network slice replacement information. | NetSliceRepl |
| Supi | 3GPP TS 29.571 [11] | Subscription Permanent Identifier |  |
| SupportedFeatures | 3GPP TS 29.571 [11] | Used to negotiate the applicability of the optional features defined in table 5.8-1. |  |
| TimeZone | 3GPP TS 29.571 [11] | Represents a time zone. |  |
| TraceData | 3GPP TS 29.571 [11] | Represents trace data. |  |
| UintegerRm | 3GPP TS 29.571 [11] | Indicates Unsigned Integer, but with the OpenAPI "nullable: true" property. | 5GAccessStratumTime |
| WirelineServiceAreaRestriction | 3GPP TS 29.571 [11] | Represent wireline service area restriction information. | WirelineWirelessConvergence |

\* \* \* \* Next changes \* \* \* \*

#### 5.6.2.2 Type PolicyAssociation

Table 5.6.2.2-1: Definition of type PolicyAssociation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| request | PolicyAssociationRequest | O | 0..1 | The information provided by the NF service consumer when requesting the creation of a policy association |  |
| triggers | array(RequestTrigger) | O | 1..N | Request Triggers that the PCF subscribes.  (NOTE 1) |  |
| servAreaRes | ServiceAreaRestriction | O | 0..1 | Service Area Restriction as part of the AMF Access and Mobility Policy as determined by the PCF |  |
| wlServAreaRes | WirelineServiceAreaRestriction | O | 0..1 | Wireline Service Area Restriction as part of the AMF Access and Mobility Policy as determined by the PCF | WirelineWirelessConvergence |
| rfsp | RfspIndex | O | 0..1 | RFSP Index as part of the AMF Access and Mobility Policy as determined by the PCF. |  |
| rfspValTime | DurationSec | O | 0..1 | Validity time of the RFSP Index value provided within the "rfsp" attribute.  It may be provided when the RFSP Index value within the "rfsp" attribute indicates the EPC/E-UTRAN access is prioritized over 5GS access. It shall be omitted for other RFSP Index values. | RFSPValidityTime |
| targetRfsp | RfspIndex | C | 0..1 | RFSP Index associated with the Target NSSAI. It shall be present if the Target NSSAI was received in the request and the trigger "TARGET\_NSSAI" is provided. | TargetNSSAI |
| pras | map(PresenceInfo) | C | 1..N | If the Trigger "PRA\_CH" is provided, the presence reporting area(s) for which reporting is requested shall be provided. The "praId" attribute within the PresenceInfo data type shall also be the key of the map. The "presenceState" and the "additionalPraId" attributes within the PresenceInfo data type shall not be supplied. The "praId" attribute within the PresenceInfo data type shall include the identifier of either a presence reporting area or a presence reporting area set. |  |
| smfSelInfo | SmfSelectionData | C | 0..1 | If the trigger "SMF\_SELECT\_CH" is provided, the conditions for SMF selection information replacement, as determined by the PCF shall be provided. | DNNReplacementControl |
| ueAmbr | Ambr | O | 0..1 | UE-AMBR as part of the AMF Access and Mobility Policy as determined by the PCF. | UE-AMBR\_Authorization |
| ueSliceMbrs | array(UeSliceMbr) | O | 1..N | One or more UE-Slice-MBR(s) for S-NSSAI(s) of serving PLMN as part of the AMF Access and Mobility Policy as determined by the PCF. | UE-Slice-MBR\_Authorization |
| pcfUeInfo | PcfUeCallbackInfo | O | 0..1 | Contains the PCF for the UE information necessary for the PCF for the PDU session to send events notifications to the PCF for the UE. | AMInfluence |
| matchPdus | array(PduSessionInfo) | C | 1..N | Indicates the matched PDU session(s) for which the PCF for the UE information in the "pcfUeInfo" attribute shall be forwarded to the SMF. It shall be present when the "pcfUeInfo" attribute is present.  (NOTE 2) | AMInfluence |
| asTimeDisParam | AsTimeDistributionParam | O | 0..1 | Contains the 5G acess stratum time distribution parameters. | 5GAccessStratumTime |
| sliceUsgCtrlInfoSets | map(SliceUsgCtrlInfo) | O | 1..N | Represents the network slice usage control information.  The key of the map shall be set to the on-demand S-NSSAI (provided within the "snssai" attribute of the corresponding map entry encoded using the SliceUsgCtrlInfo data structure) to which the network slice usage control information is related. | NetSliceUsageCtrl |
| chfInfo | ChargingInformation | O | 0..1 | Contains the CHF address information.  (NOTE 3) | SLAMUP |
| chfGroupId | NfGroupId | O | 0..1 | Contains the identity of the CHF group that manages charging.  (NOTE 3) | CHFGroup |
| afSliceReplReq | SliceReplReq | O | 0..1 | Contains the requested Network Slice Replacement requirements. | AfNetSliceRepl |
| suppFeat | SupportedFeatures | M | 1 | Indicates the negotiated supported features. |  |
| NOTE 1: Only the RequestTrigger enumeration values corresponding to PCRTs that require explicit subscription as defined in clause 5.6.3.3 shall be applicable within the "triggers" attribute.  NOTE 2: The DNN encoded within the PduSessionInfo element(s) of the "matchPdus" array contains a full DNN or only the DNN Network Identifier based on the DNN provided by the AF to the PCF in the AmInfluence API, as specified in 3GPP TS 29.522 [32]. When the DNN contains the Network Identifier only, the AMF shall match a PDU session for the received Network Identifier and for any value of the Operator Identifier.  NOTE 3: This attribute may only be supplied by the PCF in the response to the POST request that requested the creation of an individual AM policy resource. | | | | | |

\* \* \* \* Next changes \* \* \* \*

## 5.8 Feature negotiation

The optional features in table 5.8-1 are defined for the Npcf\_AMPolicyControl API. They shall be negotiated using the extensibility mechanism defined in clause 6.6 of 3GPP TS 29.500 [5].

Table 5.8-1: Supported Features

|  |  |  |
| --- | --- | --- |
| Feature number | Feature Name | Description |
| 1 | SliceSupport | Indicates the support of AM policies differentiation based on the awareness of the allowed NSSAI. |
| 2 | PendingTransaction | This feature indicates support for the race condition handling as defined in 3GPP TS 29.513 [7]. |
| 3 | UE-AMBR\_Authorization | Indicates the support of UE-AMBR control by the PCF in the serving network. |
| 4 | DNNReplacementControl | Indicates the support of DNN replacement control. |
| 5 | MultipleAccessTypes | Indicates the support of AM policies for the multiple (i.e. 3GPP and non-3GPP) access and RAT types where the served UE is camping. |
| 6 | WirelineWirelessConvergence | Indicates the support of Wireline and Wireless access convergence. |
| 7 | ImmediateReport | Indicates the support of the current applicable values report corresponding to the policy control request triggers for policy update notification. |
| 8 | ES3XX | Extended Support for 3xx redirections. This feature indicates the support of redirection for any service operation, according to Stateless NF procedures as specified in clauses 6.5.3.2 and 6.5.3.3 of 3GPP TS 29.500 [5] and according to HTTP redirection principles for indirect communication, as specified in clause 6.10.9 of 3GPP TS 29.500 [5]. |
| 9 | UE-Slice-MBR\_Authorization | Indicates the support of UE-Slice-MBR control by the PCF in the serving network. |
| 10 | AMInfluence | Indicates the support of the alternative mechanism to support informing the PCF for the UE of PDU session(s) established/terminated events via the delivery of the PCF for the UE information necessary for the PCF for the PDU session to send notifications on PDU session(s) established/terminated events through the AMF and the SMF. |
| 11 | EneNA | This feature indicates the support of NWDAF data reporting. |
| 12 | TargetNSSAI | Indicates the support for RFSP Index associated with the Target NSSAI. |
| 13 | 5GAccessStratumTime | This feature indicates the support of 5G acess stratum time distribution parameters provisioning. |
| 14 | FeatureRenegotiation | This feature indicates the support of feature renegotiation during the update of a policy association triggered by UE mobility with AMF change. |
| 15 | NetSliceRepl | This feature indicates the support of the network slice replacement functionality as part of the enhancements of the network slicing functionality.  The following functionalities are supported:  - Support the network slice replacement information management. |
| 16 | RFSPValidityTime | This feature indicates the support of the provisioning of a validity time for the RFSP Index value that indicates the EPC/E-UTRAN access is prioritized over 5GS access. |
| 17 | NetTimeSyncStatus | This feature indicates the support of network timing synchronization status and reporting. This feature requires the support of the 5GAccessStratumTime feature as well. |
| 18 | NetSliceUsageCtrl | This feature indicates the support of the network slice usage control functionality as part of the enhancements of the network slicing functionality.  The following functionalities are supported:  - Support the provisioning by the PCF of the network slice usage control information (e.g., slice deregistration inactivity timer value).  This feature requires the support of the "SliceSupport" and/or "DNNReplacementControl" features. |
| 19 | PartNetSliceSupport | This feature indicates the partial network slice support in a Registration Area functionality as part of the enhancements of the network slicing functionality.  The following functionalities are supported:  - Support the reporting of the changes in the Partially Allowed NSSAI, S-NSSAI(s) rejected partially in the RA, Rejected S-NSSAI(s) in the RA and/or the Pending NSSAI to the PCF. |
| 20 | SLAMUP | This feature indicates the support of the provisioning to the AMF of the CHF information of the CHF selected by the PCF. |
| 21 | RatTypeChange | This feature indicates the support of provisioning the AM policies to the UE for the change in the RAT type within the same Access type. |
| 22 | AfNetSliceRepl | This feature indicates the support of the enhancements to support AF requested Network Slice Replacement services.  The following functionalities are supported:  - Support the provisioning and management of the AF requested Network Slice Replacement requirements. |
| 23 | Energy | Indicates the support of reporting the subscribed Energy Saving Indicator value changes. |
| 24 | CHFGroup | This feature indicates the support of provisioning the CHF Group ID. |

\* \* \* \* Next changes \* \* \* \*

# A.2 Npcf\_AMPolicyControl API

openapi: 3.0.0

info:

version: 1.4.0-alpha.2

title: Npcf\_AMPolicyControl

description: |

Access and Mobility Policy Control Service.

© 2025, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).

All rights reserved.

externalDocs:

description: 3GPP TS 29.507 V19.3.0; 5G System; Access and Mobility Policy Control Service.

url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.507/'

servers:

- url: '{apiRoot}/npcf-am-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-am-policy-control

paths:

/policies:

post:

operationId: CreateIndividualAMPolicyAssociation

summary: Create individual AM policy association.

tags:

- AM 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-am-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/AmRequestedValueRep'

'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: ReadIndividualAMPolicyAssociation

summary: Read individual AM policy association.

tags:

- Individual AM 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: DeleteIndividualAMPolicyAssociation

summary: Delete individual AM policy association.

tags:

- Individual AM 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: ReportObservedEventTriggersForIndividualAMPolicyAssociation

summary: >

Report observed event triggers and obtain updated policies for an individual AM

policy association.

tags:

- Individual AM 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-am-policy-control: Access to the Npcf\_AMPolicyControl API

schemas:

PolicyAssociation:

description: Represents an individual AM Policy Association resource.

type: object

properties:

request:

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

triggers:

type: array

items:

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

minItems: 1

description: Request Triggers that the PCF subscribes.

servAreaRes:

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

wlServAreaRes:

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

rfsp:

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

rfspValTime:

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

targetRfsp:

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

smfSelInfo:

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

ueAmbr:

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

ueSliceMbrs:

type: array

items:

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

minItems: 1

description: >

One or more UE-Slice-MBR(s) for S-NSSAI(s) of serving PLMN as part of the

AMF Access and Mobility Policy as determined by the PCF.

pras:

type: object

additionalProperties:

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

minProperties: 1

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.

pcfUeInfo:

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

matchPdus:

type: array

items:

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

description: >

Indicates the matched PDU session(s) for which the PCF for the UE information apply.

nullable: true

asTimeDisParam:

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

sliceUsgCtrlInfoSets:

type: object

additionalProperties:

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

minProperties: 1

description: >

Represents the network slice usage control information.

The key of the map shall be set to the on-demand S-NSSAI (within the "snssai" attribute

of the corresponding map entry encoded using the SliceUsgCtrlInfo data structure) to

which the network slice usage control information is related.

chfInfo:

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

chfGroupId:

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

sliceReplReq:

$ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/SliceReplReq'

suppFeat:

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

required:

- suppFeat

PolicyAssociationRequest:

description: >

Information which the NF service consumer provides when requesting the creation of a policy

association. The serviveName property corresponds to the serviceName in the main body

of the specification.

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

servAreaRes:

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

wlServAreaRes:

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

rfsp:

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

ueAmbr:

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

ueSliceMbrs:

type: array

items:

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

minItems: 1

description: >

The subscribed UE Slice-MBR for each subscribed S-NSSAI of the home PLMN mapping to

a S-NSSAI of the serving PLMN Shall be provided when available.

allowedSnssais:

description: array of allowed S-NSSAIs for the 3GPP access.

type: array

items:

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

minItems: 1

partAllowedNssai:

type: object

additionalProperties:

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

minProperties: 1

description: >

Represents the Partially Allowed NSSAI.

The key of the map shall be set to the value of the "snssai" attribute of the

corresponding map entry (encoded using the PartiallyAllowedSnssai data

structure).

snssaisPartRejected:

type: object

additionalProperties:

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

minProperties: 1

description: >

Represents the set of S-NSSAI(s) rejected partially in the RA.

The key of the map shall be set to the value of the "snssai" attribute of the

corresponding map entry (encoded using the SnssaiPartRejected data structure).

rejectedSnssais:

type: array

items:

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

minItems: 1

pendingNssai:

type: array

items:

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

minItems: 1

targetSnssais:

description: array of target S-NSSAIs.

type: array

items:

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

minItems: 1

mappingSnssais:

description: >

mapping of each S-NSSAI of the Allowed NSSAI to the corresponding S-NSSAI of the HPLMN.

type: array

items:

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

minItems: 1

n3gAllowedSnssais:

description: array of allowed S-NSSAIs for the Non-3GPP access.

type: array

items:

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

minItems: 1

guami:

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

serviveName:

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

traceReq:

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

nwdafDatas:

type: array

items:

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

minItems: 1

enrgSavInd:

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

suppFeat:

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

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.

servAreaRes:

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

wlServAreaRes:

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

rfsp:

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

smfSelInfo:

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

ueAmbr:

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

ueSliceMbrs:

type: array

items:

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

minItems: 1

description: >

The subscribed UE-Slice-MBR for each subscribed S-NSSAI of the home PLMN mapping

to a S-NSSAI of the serving PLMN Shall be provided for the "UE\_SLICE\_MBR\_CH"

policy control request trigger.

praStatuses:

type: object

additionalProperties:

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

minProperties: 1

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.

userLoc:

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

allowedSnssais:

description: array of allowed S-NSSAIs for the 3GPP access.

type: array

items:

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

minItems: 1

partAllowedNssai:

type: object

additionalProperties:

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

minProperties: 1

description: >

Represents the Partially Allowed NSSAI.

The key of the map shall be set to the value of the "snssai" attribute of the

corresponding map entry (encoded using the PartiallyAllowedSnssai data

structure).

snssaisPartRejected:

type: object

additionalProperties:

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

minProperties: 1

description: >

Represents the set of S-NSSAI(s) rejected partially in the RA.

The key of the map shall be set to the value of the "snssai" attribute of the

corresponding map entry (encoded using the SnssaiPartRejected data structure).

rejectedSnssais:

type: array

items:

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

minItems: 1

pendingNssai:

type: array

items:

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

minItems: 1

targetSnssais:

description: array of target S-NSSAIs.

type: array

items:

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

minItems: 1

mappingSnssais:

description: >

mapping of each S-NSSAI of the Allowed NSSAI to the corresponding S-NSSAI of the HPLMN.

type: array

items:

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

minItems: 1

snssaiReplInfos:

description: >

Change or removal of Mapping of (replaced) S-NSSAI(s) with Alternative S-NSSAI(s)

for one or more S-NSSAI(s) of the UE's Allowed NSSAI and/or Partially Allowed NSSAI.

type: array

items:

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

minItems: 1

nullable: true

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

n3gAllowedSnssais:

description: array of allowed S-NSSAIs for the Non-3GPP access.

type: array

items:

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

minItems: 1

unavailSnssais:

description: >

Represents the unavailable S-NSSAI(s) from the UE's Allowed NSSAI and/or

Partially Allowed NSSAI that require network slice replacement.

type: array

items:

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

minItems: 1

traceReq:

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

guami:

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

nwdafDatas:

type: array

items:

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

minItems: 1

nullable: true

afSliceReplOut:

$ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/SliceReplOutcomeInfo'

enrgSavInd:

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

suppFeat:

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

PolicyUpdate:

description: >

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

Update Request.

type: object

properties:

resourceUri:

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

triggers:

type: array

items:

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

minItems: 1

nullable: true

description: Request Triggers that the PCF subscribes.

servAreaRes:

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

wlServAreaRes:

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

rfsp:

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

rfspValTime:

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

targetRfsp:

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

smfSelInfo:

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

ueAmbr:

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

ueSliceMbrs:

type: array

items:

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

minItems: 1

description: >

One or more UE-Slice-MBR(s) for S-NSSAI(s) of serving PLMN the allowed NSSAI as

part of the AMF Access and Mobility Policy as determined by the PCF.

pras:

type: object

additionalProperties:

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

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

pcfUeInfo:

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

matchPdus:

type: array

items:

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

description: >

Indicates the matched PDU session(s) for which the PCF for the UE information apply.

nullable: true

asTimeDisParam:

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

snssaiReplInfos:

nullable: true

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the network slice replacement information.

The key of the map shall be set to the concerned unavailable S-NSSAI provided within the

"snssai" attribute of the corresponding map entry (encoded using the SnssaiReplaceInfo

data structure) to which the network slice replacement information is related.

sliceUsgCtrlInfoSets:

type: object

additionalProperties:

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

minProperties: 1

description: >

Represents the updated network slice usage control information.

The key of the map shall be set to the on-demand S-NSSAI (within the "snssai" attribute

of the corresponding map entry encoded using the SliceUsgCtrlInfo data structure) to

which the network slice usage control information is related.

sliceReplReq:

$ref: 'TS29534\_Npcf\_AMPolicyAuthorization.yaml#/components/schemas/SliceReplReq'

suppFeat:

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

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

SmfSelectionData:

description: Represents the SMF Selection information that may be replaced by the PCF.

type: object

properties:

unsuppDnn:

type: boolean

candidates:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the list of DNNs per S-NSSAI that are candidates for replacement. The snssai

attribute within the CandidateForReplacement data type is the key of the map.

nullable: true

snssai:

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

mappingSnssai:

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

dnn:

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

nullable: true

CandidateForReplacement:

description: Represents a list of candidate DNNs for replacement for an S-NSSAI.

type: object

properties:

snssai:

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

dnns:

type: array

items:

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

minItems: 1

nullable: true

required:

- snssai

nullable: true

AmRequestedValueRep:

description: >

Represents 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.

accessTypes:

type: array

items:

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

minItems: 1

description: >

The Access Types where the served UE is camping.

ratTypes:

type: array

items:

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

description: >

The 3GPP RAT Type and non-3GPP RAT Type where the served UE is camping.

allowedSnssais:

description: array of allowed S-NSSAIs for the 3GPP access.

type: array

items:

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

n3gAllowedSnssais:

description: array of allowed S-NSSAIs for the Non-3GPP access.

type: array

items:

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

partAllowedNssai:

type: object

additionalProperties:

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

minProperties: 1

description: >

Represents the Partially Allowed NSSAI.

The key of the map shall be set to the value of the "snssai" attribute of the

corresponding map entry (encoded using the PartiallyAllowedSnssai data

structure).

snssaisPartRejected:

type: object

additionalProperties:

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

minProperties: 1

description: >

Represents the set of S-NSSAI(s) rejected partially in the RA.

The key of the map shall be set to the value of the "snssai" attribute of the

corresponding map entry (encoded using the SnssaiPartRejected data structure).

rejectedSnssais:

type: array

items:

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

minItems: 1

pendingNssai:

type: array

items:

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

minItems: 1

AsTimeDistributionParam:

description: Contains the 5G acess stratum time distribution parameters.

type: object

properties:

asTimeDistInd:

type: boolean

description: >

Indicates the access stratum time distribution via Uu reference point is

Activated or not.

uuErrorBudget:

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

clkQltDetLvl:

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

clkQltAcptCri:

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

nullable: true

UeSliceMbr:

description: Contains a UE-Slice-MBR and the related information.

type: object

properties:

sliceMbr:

type: object

additionalProperties:

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

minProperties: 1

description: Contains the MBR for uplink and the MBR for downlink.

servingSnssai:

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

mappedHomeSnssai:

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

required:

- sliceMbr

- servingSnssai

nullable: true

SliceUsgCtrlInfo:

description: Represents network slice usage control information.

type: object

properties:

snssai:

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

deregInactivTimer:

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

required:

- snssai

SnssaiPartRejected:

description: Represents the list of the S-NSSAI(s) rejected partially in the RA.

type: object

properties:

snssai:

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

allowedTaiList:

type: array

items:

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

minItems: 1

rejectedTaiList:

type: array

items:

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

minItems: 1

required:

- snssai

oneOf:

- required: [ allowedTaiList ]

- required: [ rejectedTaiList ]

RequestTrigger:

anyOf:

- type: string

enum:

- LOC\_CH

- PRA\_CH

- SERV\_AREA\_CH

- RFSP\_CH

- ALLOWED\_NSSAI\_CH

- UE\_AMBR\_CH

- UE\_SLICE\_MBR\_CH

- SMF\_SELECT\_CH

- ACCESS\_TYPE\_CH

- NWDAF\_DATA\_CH

- TARGET\_NSSAI

- SLICE\_REPLACE\_MGMT

- FEAT\_RENEG

- PARTIALLY\_ALLOWED\_NSSAI\_CH

- SNSSAIS\_PARTIALLY\_REJECTED\_CH

- REJECTED\_SNSSAIS\_CH

- PENDING\_NSSAI\_CH

- RAT\_TYPE\_CH

- SLICE\_REPLACE\_OUTCOME

- ENERGY\_SAV\_IND\_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.

- SERV\_AREA\_CH: Service Area Restriction change. The UDM notifies the AMF that the

subscribed service area restriction information has changed.

- RFSP\_CH: RFSP index change. The UDM notifies the AMF that the subscribed RFSP index has

changed.

- ALLOWED\_NSSAI\_CH: Allowed NSSAI change. The AMF notifies that the set of UE allowed

S-NSSAIs has changed.

- UE\_AMBR\_CH: UE-AMBR change. The UDM notifies the AMF that the subscribed UE-AMBR has

changed.

- SMF\_SELECT\_CH: SMF selection information change. The UE requested for an unsupported

DNN or UE requested for a DNN within the list of DNN candidates for replacement per

S-NSSAI.

- ACCESS\_TYPE\_CH: Access Type change. The AMF notifies that the access type and the RAT

type for a UE has changed.

- UE\_SLICE\_MBR\_CH: UE-Slice-MBR change. The NF service consumer notifies any changes

in the subscribed UE-Slice-MBR for each subscribed S-NSSAI of the home PLMN mapping

to a S-NSSAI of the serving PLMN.

- NWDAF\_DATA\_CH: NDWAF DATA CHANGE. The AMF notifies that the NWDAF instance IDs used

for the UE and/or associated Analytics IDs used for the UE and available in the AMF

have changed.

- TARGET\_NSSAI: Generation of Target NSSAI. The NF service consumer notifies that the

Target NSSAI was generated.

- SLICE\_REPLACE\_MGMT: Indicates that slice replacement is needed for one or more S-NSSAI(s)

of the UE's Allowed NSSAI and/or Partially Allowed NSSAI and the AMF cannot determine the

Alternative S-NSSAI(s) for these S-NSSAI(s).

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

re-negotiation.

- PARTIALLY\_ALLOWED\_NSSAI\_CH: Partially Allowed NSSAI change. The NF service consumer

notifies that the set of Partially Allowed S-NSSAI(s) of the UE has changed.

- SNSSAIS\_PARTIALLY\_REJECTED\_CH: Change of the S-NSSAI(s) rejected partially in the RA. The

NF service consumer notifies that the set of S-NSSAI(s) rejected partially in the RA for

the UE has changed.

- REJECTED\_SNSSAIS\_CH: Change of the Rejected S-NSSAI(s) in the RA. The NF service consumer

notifies that the set of the Rejected S-NSSAI(s) in the RA for the UE has changed.

- PENDING\_NSSAI\_CH: Pending NSSAI change. The NF service consumer notifies that the set of

Pending S-NSSAI(s) of the UE has changed.

- RAT\_TYPE\_CH: RAT Type change. The AMF notifies that the RAT type within same Access type

has changed for the UE.

- SLICE\_REPLACE\_OUTCOME: Outcome of the AF requested Network Slice Replacement initiation

or the AF requested Network Slice Replacement termination.

- ENERGY\_SAV\_IND\_CH: Energy Saving Indicator change. The NF consumer notifies that

the subscribed Energy Saving Indicator value has changed for the UE.

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 termination of the policy association.

Possible values are:

- UNSPECIFIED: This value is used for unspecified reasons.

- UE\_SUBSCRIPTION: This value is used to indicate that the session 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 session.

\* \* \* \* End of changes \* \* \* \*