**3GPP TSG CT WG3 Meeting #135 *C3-243350***

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

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **29.514** | **CR** | **0640** | **rev** | **-** | **Current version:** | **18.5.0** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Correction to Individual QoS parameters and miscellaneous corrections | | | | | | | | | |
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| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | XRM, SBIProtoc18 | | | | |  | ***Date:*** | | | 2024-05-13 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | Reply LS on CT WG3 Reply LS on XRM and TSC QoS requirements [S2-2405495](https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_162_Changsha_2024-04/Docs/S2-2405495.zip) indicates that:  - "In SA2, there is no discussion about whether the bold parameters be included in one message which is used to request XR service and Time sensitive communication. And it is suggested AF can request the different service in different request message".  However, the data model is confusing for individual QoS parameters because gathers in a data type aimed to contain TSN/TSC QoS Flow (called TsnQosContainer data type) any kind of QoS requirement. That is, the absence of other IEs in the data model, makes the TsnQosContainer the container for the individual QoS requirements (different from GBR and MBR info) from any kind of application.  In addition, the following corrections need to be applied to this specification:   * The removable data types (DdddRm data types) are described in 5.6.1 as the Dddd data type but with the property nullable: true in the OpenAPI. However, it is incomplete, since there are other inner attributes which are also defined as removable/nullable. | | | | | | | | |
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| ***Summary of change:*** | | Proposal to individually define the individual 5GS QoS parameters an AF may request to avoid gathering them in the tsnQos attribute. TSC/TSN QoS requirements should be placed in the tsnQos attribute, but if a TSC type of application wants to use the outer individual 5G QoS parameters, in case of collision these outer ones will take precedence. The purpose is to stop evolving tscQosReq attribute, to enable the convergence of QoS requirements for any application within the corresponding individual QoS parameters.  Completion of the definitions of the removable data types | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Unclear growth of the QoS data model for the individual QoS parameters.  Misaligned and incomplete information | | | | | | | | |
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| ***Clauses affected:*** | | 5.6.1, 5.6.2.7, 5.6.26, A.2 | | | | | | | | |
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|  | | **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 contains a backwards compatible correction to the Npcf\_PolicyAuthorization API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

\*\*\* First Change \*\*\*

### 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\_PolicyAuthorization service based interface protocol.

Table 5.6.1-1: Npcf\_PolicyAuthorization specific Data Types

| Data type | Section defined | Description | Applicability |
| --- | --- | --- | --- |
| AcceptableServiceInfo | 5.6.2.30 | Acceptable maximum requested bandwidth. |  |
| AccessNetChargingIdentifier | 5.6.2.32 | Contains the access network charging identifier. | IMS\_SBI |
| AddFlowDescriptionInfo | 5.6.2.55 | Contains additional flow description information, as the flow label and the IPsec SPI. | AddFlowDescriptionInformation |
| AfAppId | 5.6.3.2 | Contains an AF application identifier. |  |
| AfEvent | 5.6.3.7 | Represents an event to notify to the NF service consumer. |  |
| AfEventNotification | 5.6.2.11 | Represents the notification of an event. |  |
| AfEventSubscription | 5.6.2.10 | Represents the subscription to events. |  |
| AfNotifMethod | 5.6.3.8 | Represents the notification methods that can be subscribed for an event. |  |
| AfRequestedData | 5.6.3.18 | Represents the information the NF service consumer requested to be exposed. | IMS\_SBI |
| AfRoutingRequirement | 5.6.2.13 | Describes the routing requirements for the application traffic flows. | InfluenceOnTrafficRouting |
| AfRoutingRequirementRm | 5.6.2.24 | This data type is defined in the same way as the "AfRoutingRequirement" data type, but:  - with the OpenAPI "nullable: true" property; and  - with individual attribute(s) defined as removable as specified in clause 5.6.2.24. | InfluenceOnTrafficRouting |
| AfSfcRequirement | 5.6.2.49 | Describes the requirements to steer the traffic to a pre-configured chain of service functions on N6-LAN. | SFC |
| AlternativeServiceRequirementsData | 5.6.2.47 | Contains alternative QoS related parameter sets. | AltSerReqsWithIndQoS |
| AnGwAddress | 5.6.2.20 | Carries the control plane address of the access network gateway. |  |
| AppDetectionReport | 5.6.2.44 | Indicates the start or stop of the detected application traffic and the detected AF application identifier. | ApplicationDetectionEvents |
| AppDetectionNotifType | 5.6.3.23 | Represents the types of reports bound to the notification of application detection information. | ApplicationDetectionEvents |
| AppSessionContext | 5.6.2.2 | Represents an Individual Application Session Context resource. |  |
| AppSessionContextReqData | 5.6.2.3 | Represents the Individual Application Session Context resource data received in an HTTP POST request message. |  |
| AppSessionContextRespData | 5.6.2.4 | Represents the Individual Application Session Context resource data produced by the server and returned in an HTTP response message. |  |
| AppSessionContextUpdateData | 5.6.2.5 | Describes the modifications to the "ascReqData" property of an Individual Application Session Context resource. |  |
| AppSessionContextUpdateDataPatch | 5.6.2.43 | Describes the modifications to an Individual Application Session Context resource | PatchCorrection |
| AspId | 5.6.3.2 | Contains an identity of an application service provider. | SponsoredConnectivity |
| BatOffsetInfo | 5.6.2.50 | Contains the offset of the BAT and the optionally adjusted periodicity. | EnTSCAC |
| CodecData | 5.6.3.2 | Contains a codec related information. |  |
| ContentVersion | 5.6.3.2 | Represents the version of a media component. | MediaComponentVersioning |
| DirectNotificationReport | 5.6.2.57 | Represents the QoS monitoring parameter that is not authorized to be directly notified for the indicated flows. | EnQoSMon |
| EthFlowDescription | 5.6.2.17 | Defines a packet filter for an Ethernet flow. |  |
| EventsNotification | 5.6.2.9 | Describes the notification about the events occurred within an Individual Application Session Context resource. |  |
| EventsSubscPutData | 5.6.2.42 | Identifies the events the application subscribes to within an Events Subscription sub-resource data. It may also include the attributes of the notification about the events already met at the time of subscription.  It is represented as a non-exclusive list of two data types: EventsSubscReqData and EventsNotification. |  |
| EventsSubscReqData | 5.6.2.6 | Identifies the events the application subscribes to within an Individual Application Session Context resource. |  |
| EventsSubscReqDataRm | 5.6.2.25 | Describes the possible modifications to Events Subscription Data.  This data type is defined in the same way as the "EventsSubscReqData" data type, but:  - with the OpenAPI "nullable: true" property; and  - with individual attribute(s) defined as removable as specified in clause 5.6.2.25. |  |
| ExtendedProblemDetails | 5.6.2.29 | Data type that extends ProblemDetails. |  |
| FlowDescription | 5.6.3.2 | Defines a packet filter for an IP flow. |  |
| Flows | 5.6.2.21 | Identifies the flows related to a media component. |  |
| FlowStatus | 5.6.3.12 | Describes whether the IP flow(s) are enabled or disabled. |  |
| FlowUsage | 5.6.3.14 | Describes the flow usage of the flows described by a media subcomponent. |  |
| L4sNotifType | 5.6.3.25 | Indicates whether the ECN marking for L4S support for the indicated SDFs is "NOT\_AVAILABLE" or "AVAILABLE" again. | L4S |
| L4sSupport | 5.6.2.56 | Indicates whether the ECN marking for L4S is available in 5GS for the indicated service data flows. | L4S |
| MediaComponent | 5.6.2.7 | Contains service information for a media component of an AF session. |  |
| MediaComponentRm | 5.6.2.26 | Describes the possible modifications to a Media Component.  This data type is defined in the same way as the "MediaComponent" data type, but:  - with the OpenAPI "nullable: true" property; and  - with individual attribute(s) defined as removable as specified in clause 5.6.2.26. |  |
| MediaComponentResourcesStatus | 5.6.3.13 | Indicates whether the media component is active or inactive. |  |
| MediaSubComponent | 5.6.2.8 | Contains the requested bitrate and filters for the set of IP flows identified by their common flow identifier. |  |
| MediaSubComponentRm | 5.6.2.27 | Describes the possible modifications to a Media Subcomponent.  This data type is defined in the same way as the "MediaSubComponent" data type, but:  - with the OpenAPI "nullable: true" property; and  - with individual attribute(s) defined as removable as specified in clause 5.6.2.27. |  |
| MediaType | 5.6.3.3 | Indicates the media type of a media component. |  |
| MpsAction | 5.6.3.22 | Indicates whethe it is an invocation, a revocation or an invocation with authorization of the MPS for DTS service. | MPSforDTS |
| MultiModalId | 5.6.3.2 | Contains a multi-modal service identifier. | MultiMedia |
| OutOfCreditInformation | 5.6.2.33 | Indicates the service data flows without available credit and the corresponding termination action. | IMS\_SBI |
| PcfAddressingInfo | 5.6.2.46 | Contains PCF address information. |  |
| PcscfRestorationRequestData | 5.6.2.36 | Indicates P-CSCF restoration. | PCSCF-Restoration-Enhancement |
| PduSessionEventNotification | 5.6.2.45 | Indicates PDU session information for the established/terminated PDU session. |  |
| PduSessionStatus | 5.6.3.24 | Indicates whether the PDU session is established or terminated. |  |
| PduSessionTsnBridge | 5.6.2.40 | Contains the TSC user plane node Information and DS-TT port and/or NW-TT ports management information of a new detected TSC user plane node in the context of a new PDU session. | TimeSensitiveNetworking |
| PdvMonitoringReport | 5.6.2.53 | Packet Delay Variation reporting information. | EnQoSMon |
| PeriodicityRange | 5.6.2.48 | Contains the acceptable range (which is formulated as lower bound and upper bound of the periodicity of the start two bursts in reference to the external GM) or acceptable periodicity value(s) (which is formulated as a list of values for the periodicity). | EnTSCAC |
| PreemptionControlInformation | 5.6.3.19 | Pre-emption control information. | MCPTT-Preemption |
| PreemptionControlInformationRm | 5.6.3.21 | This data type is defined in the same way as the "PreemptionControlInformation" data type, but with the OpenAPI "nullable: true" property. | MCPTT-Preemption |
| PrioritySharingIndicator | 5.6.3.20 | Priority sharing indicator. | PrioritySharing |
| QosMonitoringInformation | 5.6.2.34 | QoS monitoring information (e.g. UL, DL or round trip packet delay). | QoSMonitoring |
| QosMonitoringInformationRm | 5.6.2.41 | Describes the possible modifications to QoS monitoring data.  This data type is defined in the same way as the "QosMonitoringInformation" data type, but:  - with the OpenAPI "nullable: true" property; and  - when the "EnQoSMon" feature is supported, with individual attribute(s) defined as removable as specified in clause 5.6.2.41. | QoSMonitoring |
| QosMonitoringReport | 5.6.2.37 | Contains QoS monitoring reporting information. | QoSMonitoring |
| QosNotificationControlInfo | 5.6.2.15 | Indicates whether the QoS targets related to certain media component are not guaranteed or are guaranteed again. |  |
| QosNotifType | 5.6.3.9 | Indicates type of notification for QoS Notification Control. |  |
| RequiredAccessInfo | 5.6.3.15 | Indicates the access network information required for an AF session. | NetLoc |
| ReservPriority | 5.6.3.4 | Indicates the reservation priority. |  |
| ResourcesAllocationInfo | 5.6.2.14 | Indicates the status of the PCC rule(s) related to certain media component. |  |
| ServAuthInfo | 5.6.3.5 | Indicates the result of the Policy Authorization service request from the NF service consumer. |  |
| ServiceInfoStatus | 5.6.3.16 | Preliminary or final service information status. | IMS\_SBI |
| ServiceUrn | 5.6.3.2 | Service URN. | IMS\_SBI |
| SipForkingIndication | 5.6.3.17 | Describes if several SIP dialogues are related to an "Individual Application Session Context" resource. | IMS\_SBI |
| SpatialValidity | 5.6.2.16 | Describes the spatial validity of an NF service consumer request for influencing traffic routing. | InfluenceOnTrafficRouting |
| SpatialValidityRm | 5.6.2.28 | This data type is defined in the same way as the "SpatialValidity" data type, but with the OpenAPI "nullable: true" property. | InfluenceOnTrafficRouting |
| SponId | 5.6.3.2 | Contains an Identity of a sponsor. | SponsoredConnectivity |
| SponsoringStatus | 5.6.3.6 | Represents whether sponsored data connectivity is enabled or disabled/not enabled. | SponsoredConnectivity |
| TemporalValidity | 5.6.2.22 | Indicates the time interval during which the NF service consumer request is to be applied. | InfluenceOnTrafficRouting |
| TerminationCause | 5.6.3.10 | Indicates the cause for requesting the deletion of the Individual Application Session Context resource. |  |
| TerminationInfo | 5.6.2.12 | Includes information related to the termination of the Individual Application Session Context resource. |  |
| TosTrafficClass | 5.6.3.2 | Contains the IPv4 Type-of-Service or the IPv6 Traffic-Class field and the ToS/Traffic Class mask field. |  |
| TosTrafficClassRm | 5.6.3.2 | This data type is defined in the same way as the "TosTrafficClass" data type, but with the OpenAPI "nullable: true" property. |  |
| TscPriorityLevel | 5.6.3.2 | Priority of TSC Flows | TimeSensitiveNetworking |
| TscPriorityLevelRm | 5.6.3.2 | This data type is defined in the same way as the "TscPriorityLevel" data type, but with the OpenAPI "nullable: true" property | TimeSensitiveNetworking |
| TscaiInputContainer | 5.6.2.39 | TSCAI Input information container. | TimeSensitiveNetworking |
| TsnQosContainer | 5.6.2.35 | TSC traffic QoS parameters. | TimeSensitiveNetworking  XRM\_5G |
| TsnQosContainerRm | 5.6.2.38 | This data type is defined in the same way as the "TsnQosContainer" data type, but with the OpenAPI "nullable: true" property. | TimeSensitiveNetworking  XRM\_5G |
| UeIdentityInfo | 5.6.2.31 | Represents 5GS-Level UE Identities. | IMS\_SBI |
| UrspEnforcementReport | 5.6.2.53 | Indicates the UE reporting Connection Capabilities from associated URSP rule(s). | URSPEnforcement |
| UplinkDownlinkSupport | 5.6.3.25 | Represents whether a capability is supported for the UL, the DL or both UL and DL service data flows | L4S |

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

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

| Data type | Reference | Comments | Applicability |
| --- | --- | --- | --- |
| AccNetChargingAddress | 3GPP TS 29.512 [8] | Indicates the IP address of the network entity within the access network performing charging. | IMS\_SBI |
| AccessType | 3GPP TS 29.571 [12] | The identification of the type of access network. |  |
| AccumulatedUsage | 3GPP TS 29.122 [15] | Accumulated Usage. | SponsoredConnectivity |
| AdditionalAccessInfo | 3GPP TS 29.512 [8] | Indicates the combination of additional Access Type and RAT Type for MA PDU session | ATSSS |
| AfSigProtocol | 3GPP TS 29.512 [8] | Represents the protocol used for signalling between the UE and the NF service consumer. | ProvAFsignalFlow |
| ApplicationChargingId | 3GPP TS 29.571 [12] | Application provided charging identifier allowing correlation of charging information. | IMS\_SBI |
| AverWindow | 3GPP TS 29.571 [12] | Averaging Window. | EnQoSMon |
| AverWindowRm | 3GPP TS 29.571 [12] | This data type is defined in the same way as the "AverWindow" data type, but with the OpenAPI "nullable: true" property. | EnQoSMon |
| BdtReferenceId | 3GPP TS 29.122 [15] | Identifies transfer policies. |  |
| BitRate | 3GPP TS 29.571 [12] | Specifies bitrate in kbits per second. |  |
| BitRateRm | 3GPP TS 29.571 [12] | This data type is defined in the same way as the "BitRate" data type, but with the OpenAPI "nullable: true" property. |  |
| BridgeManagementContainer | 3GPP TS 29.512 [8] | Contains TSC user plane node management information. | TimeSensitiveNetworking |
| ChargingId | 3GPP TS 29.571 [12] | Charging identifier allowing correlation of charging information. | IMS\_SBI |
| DateTime | 3GPP TS 29.571 [12] | String with format "date-time" as defined in OpenAPI Specification [11]. | InfluenceOnTrafficRouting, TimeSensitiveNetworking |
| Dnn | 3GPP TS 29.571 [12] | Data Network Name. |  |
| DurationSec | 3GPP TS 29.571 [12] | Identifies a period of time in units of seconds. | TimeSensitiveNetworking, EnhancedSubscriptionToNotification,  SimultConnectivity |
| DurationSecRm | 3GPP TS 29.571 [12] | This data type is defined in the same way as the "DurationSec" data type, but with the OpenAPI "nullable: true" property. | SimultConnectivity |
| EasIpReplacementInfo | 3GPP TS 29.571 [12] | Contains EAS IP replacement information for a Source and a Target EAS. | EASIPreplacement |
| FinalUnitAction | 3GPP TS 32.291 [22] | Indicates the action to be taken when the user's account cannot cover the service cost. |  |
| Float | 3GPP TS 29.571 [12] | Number with format "float" as defined in OpenAPI Specification [11]. | FLUS |
| FloatRm | 3GPP TS 29.571 [12] | This data type is defined in the same way as the "Float" data type, but with the OpenAPI "nullable: true" property. | FLUS |
| FlowDirection | 3GPP TS 29.512 [8] | Flow Direction. |  |
| Fqdn | 3GPP TS 29.571 [12] | Contains a FQDN |  |
| ExtMaxDataBurstVol | 3GPP TS 29.571 [12] | Maximum Burst Size. | TimeSensitiveNetworking |
| ExtMaxDataBurstVolRm | 3GPP TS 29.571 [12] | This data type is defined in the same way as the "ExtMaxDataBurstVol" data type, but with the OpenAPI "nullable: true" property | TimeSensitiveNetworking |
| Gpsi | 3GPP TS 29.571 [12] | Identifies the GPSI. |  |
| Ipv4Addr | 3GPP TS 29.571 [12] | Identifies an IPv4 address. |  |
| Ipv4AddrMask | 3GPP TS 29.571 [12] | IPv4 address mask | ExtraUEaddrReport |
| Ipv6Addr | 3GPP TS 29.571 [12] | Identifies an IPv6 address. |  |
| IpEndPoint | 3GPP TS 29.510 [27] | Contains a NF IPv4 and/or IPv6 end points. |  |
| MacAddr48 | 3GPP TS 29.571 [12] | MAC Address. |  |
| Metadata | 3GPP TS 29.571 [12] | This datatype contains opaque information for the service functions in the N6-LAN that is provided by AF and transparently sent to UPF. | SFC |
| NetLocAccessSupport | 3GPP TS 29.512 [8] | Indicates the access network does not support the report of the requested access network information. | NetLoc |
| NullValue | 3GPP TS 29.571 [12] | JSON's null value, used as an explicit value of an enumeration. | MCPTT-Preemption |
| PacketDelBudget | 3GPP TS 29.571 [12] | Packet Delay Budget. | TimeSensitiveNetworking |
| PacketDelBudgetRm | 3GPP TS 29.571 [12] | This data type is defined in the same way as the "PacketDelBudget" data type, but with the OpenAPI "nullable: true" property | TimeSensitiveNetworking |
| PacketErrRate | 3GPP TS 29.571 [12] | String representing Packet Error Rate (see clauses 5.7.3.5 and 5.7.4 of 3GPP TS 23.501 [8]), expressed as a "*scalar* x 10-k" where the scalar and the *exponent k are each encoded as one decimal digit*.  Pattern: '^([0-9]E-[0-9])$'  Examples:  Packer Error Rate 4x10-6 shall be encoded as "4E-6".  Packer Error Rate 10-2 shall be encoded as "1E-2". | ExtQoS |
| PacketErrRateRm | 3GPP TS 29.571 [12] | This data type is defined in the same way as the "PacketErrRate" data type, but with the OpenAPI "nullable: true" property. | ExtQoS |
| PacketLossRateRm | 3GPP TS 29.571 [12] | This data type is defined in the same way as the "PacketLossRate" data type, but with the OpenAPI "nullable: true" property. | CHEM |
| PduSessionId | 3GPP TS 29.571 [12] | The identification of the PDU session. | URSPEnforcement |
| PduSetQosPara | 3GPP TS 29.571 [12] | PDU Set related QoS parameters. | PDUSetHandling |
| PduSetQosParaRm | 3GPP TS 29.571 [12] | This data type is defined in the same way as the "PduSetQosPara" data type, but with the OpenAPI "nullable: true" property. | PDUSetHandling |
| Pei | 3GPP TS 29.571 [12] | Identifies the PEI. | IMS\_SBI |
| PlmnIdNid | 3GPP TS 29.571 [12] | Identifies the network: the PLMN Identifier (the mobile country code and the mobile network code) or the SNPN Identifier (the PLMN Identifier and the NID). |  |
| PreemptionCapability | 3GPP TS 29.571 [12] | Pre-emption capability. | MCPTT-Preemption |
| PreemptionVulnerability | 3GPP TS 29.571 [12] | Pre-emption vulnerability. | MCPTT-Preemption |
| PreemptionCapabilityRm | 3GPP TS 29.571 [12] | It is defined in the same way as the "PreemptionCapability" data type, but with the OpenAPI "nullable: true" property. | MCPTT-Preemption |
| PreemptionVulnerabilityRm | 3GPP TS 29.571 [12] | It is defined in the same way as the "PreemptionVulnerability" data type, but with the OpenAPI "nullable: true" property. | MCPTT-Preemption |
| PresenceInfo | 3GPP TS 29.571 [12] | Represents an area of interest, e.g. a Presence Reporting Area. | InfluenceOnTrafficRouting |
| PortManagementContainer | 3GPP TS 29.512 [8] | Contains port management information for a related port. | TimeSensitiveNetworking |
| ProblemDetails | 3GPP TS 29.571 [12] | Contains a detailed information about an error. |  |
| ProtocolDescription | 3GPP TS 29.571 [12] | Represents Protocol description of the media flow | PDUSetHandling PowerSaving |
| QosMonitoringParamType | 3GPP TS 29.512 [8] | Contains the QoS monitoring parameter to be monitored. | EnQosMon |
| RanNasRelCause | 3GPP TS 29.512 [8] | Indicates RAN and/or NAS release cause code information. | RAN-NAS-Cause |
| RatType | 3GPP TS 29.571 [12] | RAT Type. |  |
| RedirectResponse | 3GPP TS 29.571 [12] | Contains redirection related information. | ES3XX |
| RedundantPduSessionInformation | 3GPP TS 29.502 [57] | Contains the Redundant PDU session information, i.e, the RSN and the PDU Session Pair ID. | URSPEnforcement |
| RequestedQosMonitoringParameter | 3GPP TS 29.512 [8] | Indicate the QoS information to be monitored, e.g. UL packet delay, DL packet delay or round trip packet delay between the UE and the UPF is to be monitored when the QoS Monitoring for packet delay is enabled for the service data flow. | QoSMonitoring |
| RouteToLocation | 3GPP TS 29.571 [12] | Identifies routes to locations of applications. | InfluenceOnTrafficRouting |
| SatelliteBackhaulCategory | 3GPP TS 29.571 [12] | Indicates the satellite or non-satellite backhaul category | SatelliteBackhaul |
| Snssai | 3GPP TS 29.571 [12] | Identifies the S-NSSAI. |  |
| SscMode | 3GPP TS 29.571 [12] | Service and session continuity mode. | URSPEnforcement |
| Supi | 3GPP TS 29.571 [12] | Identifies the SUPI. |  |
| SupportedFeatures | 3GPP TS 29.571 [12] | Used to negotiate the applicability of the optional features defined in table 5.8-1. |  |
| TimeWindow | 3GPP TS 29.122 [15] | Time window identified by a start time and a stop time. | EnTSCAC |
| TrafficCorrelationInfo | 3GPP TS 29.519 [53] | Contains the information for traffic correlation. | CommonEASDNAI |
| TimeZone | 3GPP TS 29.571 [12] | Time Zone. | NetLoc |
| TsnBridgeInfo | 3GPP TS 29.512 [8] | TSC user plane node information. | TimeSensitiveNetworking |
| Uint32 | 3GPP TS 29.571 [12] | Unsigned 32-bit integers, i.e. only value 0 and 32-bit integers above 0 are permissible. | ResourceSharing |
| Uint32Rm | 3GPP TS 29.571 [12] | This data type is defined in the same way as the "Uint32" data type, but with the OpenAPI "nullable: true" property. | ResourceSharing |
| Uinteger | 3GPP TS 29.571 [12] | Unsigned Integer, i.e. only value 0 and integers above 0 are permissible.  Minimum = 0. | TimeSensitiveNetworking |
| UintegerRm | 3GPP TS 29.571 [12] | This data type is defined in the same way as the "Uint32" data type, but with the OpenAPI "nullable: true" property. | AF\_latency, QoSMonitoring |
| UpPathChgEvent | 3GPP TS 29.512 [8] | Contains the subscription information to be delivered to SMF for the UP path management events. | InfluenceOnTrafficRouting |
| Uri | 3GPP TS 29.571 [12] | String providing an URI. |  |
| UsageThreshold | 3GPP TS 29.122 [15] | Usage Thresholds. | SponsoredConnectivity |
| UsageThresholdRm | 3GPP TS 29.122 [15] | This data type is defined in the same way as the "UsageThreshold" data type, but with the OpenAPI "nullable: true" property. | SponsoredConnectivity |
| UserLocation | 3GPP TS 29.571 [12] | User Location(s). | NetLoc |

\*\*\* Next Change \*\*\*

#### 5.6.2.7 Type MediaComponent

Table 5.6.2.7-1: Definition of type MediaComponent

| Attribute name | | Data type | | P | | Cardinality | | Description | | Applicability | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| afAppId | | AfAppId | | O | | 0..1 | | Contains information that identifies the particular service the AF session belongs to. | |  | |
| afRoutReq | | AfRoutingRequirement | | O | | 0..1 | | Indicates the AF traffic routing requirements. | | InfluenceOnTrafficRouting | |
| afSfcReq | | AfSfcRequirement | | O | | 0..1 | | Indicates the AF requirements on steering traffic to a pre-configured chain of service functions on N6-LAN. | | SFC | |
| qosReference | | string | | O | | 0..1 | | Identifies a pre-defined QoS information. | | AuthorizationWithRequiredQoS | |
| altSerReqs | | array(string) | | O | | 1..N | | Ordered list of alternative service requirements that include a set of QoS references. The lower the index of the array for a given entry, the higher the priority.(NOTE 1) | | AuthorizationWithRequiredQoS | |
| altSerReqsData | | array(AlternativeServiceRequirementsData) | | O | | 1..N | | Ordered list of alternative service requirements that include individual QoS parameter sets. The lower the index of the array for a given entry, the higher the priority. (NOTE 1) | | AltSerReqsWithIndQoS | |
| disUeNotif | | boolean | | O | | 0..1 | | Indicates to disable QoS flow parameters signalling to the UE when the SMF is notified by the NG-RAN of changes in the fulfilled QoS situation when it is included and set to "true". The fulfilled situation is either the QoS profile or an Alternative QoS Profile. The default value "false" shall apply, if the attribute is not present and has not been supplied previously. | | DisableUENotification | |
| contVer | | ContentVersion | | O | | 0..1 | | Represents the content version of a media component. | | MediaComponentVersioning | |
| desMaxLatency | | Float | | O | | 0..1 | | Indicates a maximum desirable transport level packet latency in milliseconds. | | FLUS, QoSHint | |
| desMaxLoss | | Float | | O | | 0..1 | | Indicates the maximum desirable transport level packet loss rate in percent (without "%" sign). | | FLUS, QoSHint | |
| flusId | | string | | O | | 0..1 | | Indicates that the media component is used for FLUS media.  It is derived from the media level attribute "a=label:" (see IETF RFC 4574 [50]) obtained from the SDP body. It contains the string after "a=label:" starting with "flus" and may be followed by more characters as described in 3GPP TS 26.238 [51]. | | FLUS | |
| medCompN | | integer | | M | | 1 | | Identifies the media component number, and it contains the ordinal number of the media component. | |  | |
| medSubComps | | map(MediaSubComponent) | | O | | 1..N | | Contains the requested bitrate and filters for the set of service data flows identified by their common flow identifier. The key of the map is the attribute "fNum".  (NOTE 3) | |  | |
| medType | | MediaType | | O | | 0..1 | | Indicates the media type of the service. | |  | |
| marBwUl | | BitRate | | O | | 0..1 | | Maximum requested bandwidth for the Uplink. | |  | |
| marBwDl | | BitRate | | O | | 0..1 | | Maximum requested bandwidth for the Downlink. | |  | |
| maxPacketLossRateDl | | PacketLossRateRm | | O | | 0..1 | | Indicates the downlink maximum rate for lost packets that can be tolerated for the service data flow. | | CHEM | |
| maxPacketLossRateUl | | PacketLossRateRm | | O | | 0..1 | | Indicates the uplink maximum rate for lost packets that can be tolerated for the service data flow. | | CHEM | |
| maxSuppBwDl | | BitRate | | O | | 0..1 | | Maximum supported bandwidth for the Downlink. | | IMS\_SBI | |
| maxSuppBwUl | | BitRate | | O | | 0..1 | | Maximum supported bandwidth for the Uplink. | | IMS\_SBI | |
| minDesBwDl | | BitRate | | O | | 0..1 | | Minimum desired bandwidth for the Downlink. | | IMS\_SBI | |
| minDesBwUl | | BitRate | | O | | 0..1 | | Minimum desired bandwidth for the Uplink. | | IMS\_SBI | |
| mirBwUl | | BitRate | | O | | 0..1 | | Minimum requested bandwidth for the Uplink. | |  | |
| mirBwDl | | BitRate | | O | | 0..1 | | Minimum requested bandwidth for the Downlink. | |  | |
| per | | PacketErrRate | | O | | 0..1 | | Represents the Packet Error Rate. | | ExtQoS | |
| fStatus | | FlowStatus | | O | | 0..1 | | Indicates whether the status of the service data flows is enabled, or disabled. | |  | |
| preemptCap | | PreemptionCapability | | O | | 0..1 | | Defines whether the media flow may get resources that were already assigned to another media flow with a lower priority level. It may be included together with "prioSharingInd" for ARP decision. | | MCPTT-Preemption | |
| preemptVuln | | PreemptionVulnerability | | O | | 0..1 | | Defines whether the media flow may lose the resources assigned to it in order to admit a media flow with higher priority level. It may be included together with "prioSharingInd" for ARP decision. | | MCPTT-Preemption | |
| prioSharingInd | | PrioritySharingIndicator | | O | | 0..1 | | Indicates that the media flow is allowed to use the same ARP as media flows belonging to other "Individual Application Session Context" resources bound to the same PDU session. | | PrioritySharing | |
| resPrio | | ReservPriority | | O | | 0..1 | | Indicates the reservation priority. | |  | |
| rrBw | | BitRate | | O | | 0..1 | | Indicates the maximum required bandwidth in bits per second for RTCP receiver reports within the session component as specified in IETF RFC 3556 [37]. The bandwidth contains all the overhead coming from the IP-layer and the layers above, i.e. IP, UDP and RTCP. | | IMS\_SBI | |
| rsBw | | BitRate | | O | | 0..1 | | Indicates the maximum required bandwidth in bits per second for RTCP sender reports within the session component as specified in IETF RFC 3556 [37]. The bandwidth contains all the overhead coming from the IP-layer and the layers above, i.e. IP, UDP and RTCP. | | IMS\_SBI | |
| sharingKeyDl | | Uint32 | | O | | 0..1 | | Identifies which media components share resources in the downlink direction.  If resource sharing applies between media components across "Individual Application Session Context" resources for the same PDU session, the same value of the "sharingKeyDl" attribute shall be used. If resource sharing does not apply among media components across "Individual Application Session Context" resources for the same PDU session, a different value for the "sharingKeyDl" attribute shall be used. | | ResourceSharing | |
| sharingKeyUl | | Uint32 | | O | | 0..1 | | Identifies which media components share resources in the uplink direction.  If resource sharing applies between media components across "Individual Application Session Context" resources for the same PDU session, the same value of the "sharingKeyUl" attribute shall be used. If resource sharing does not apply among media components across "Individual Application Session Context" resources for the same PDU session, a different value for the "sharingKeyUl" attribute shall be used. | | ResourceSharing | |
| codecs | | array(CodecData) | | O | | 1..2 | | Indicates the codec data. | |  | |
| tsnQos | | TsnQoSContainer | | O | | 0..1 | | Transports QoS parameters for TSC traffic.  (NOTE 4) | | TimeSensitiveNetworking  XRM\_5G | |
| tscaiInputUl | | TscaiInputContainer | | O | | 0..1 | | Transports TSCAI input parameters for TSC traffic at the ingress interface of the DS-TT/UE (uplink flow direction). (NOTE 2) | | TimeSensitiveNetworking | |
| tscaiInputDl | | TscaiInputContainer | | O | | 0..1 | | Transports TSCAI input parameters for TSC traffic at the ingress of the NW-TT (downlink flow direction). (NOTE 2) | | TimeSensitiveNetworking | |
| tscaiTimeDom | | Uinteger | | O | | 0..1 | | Indicates the (g)PTP domain that the (TSN)AF is located in. | | TimeSensitiveCommunication | |
| capBatAdaptation | | boolean | | O | | 0..1 | | Indicates the capability for AF to adjust the burst sending time, when it is supported and set to "true".  The default value is "false" if omitted.  (NOTE 2) | | EnTSCAC | |
| rTLatencyInd | | boolean | | O | | 0..1 | | Indicates the service data flow needs to meet the Round-Trip (RT) latency requirement of the service, when it is included and set to "true".  The default value is "false" if omitted. | | RTLatency | |
| pduSetQosDl | | PduSetQosPara | | O | | 0..1 | | PDU Set QoS parameter(s) for the downlink direction. | | PDUSetHandling | |
| pduSetQosUl | | PduSetQosPara | | O | | 0..1 | | PDU Set QoS parameter(s) for the uplink direction. | | PDUSetHandling | |
| protoDescDl | | ProtocolDescription | | O | | 0..1 | | Downlink Protocol description for PDU Set identification and/or dectection of the end of data burst in UPF. | | PDUSetHandling PowerSaving | |
| protoDescUl | | ProtocolDescription | | O | | 0..1 | | Uplink Protocol description for PDU Set identification in UPF. | | PDUSetHandling | |
| periodUl | | DurationMilliSec | | O | | 0..1 | | Indicates the time period between the start of the two data bursts in units of milliseconds in Uplink direction. | | PowerSaving | |
| periodDl | | DurationMilliSec | | O | | 0..1 | | Indicates the time period between the start of the two data bursts in units of milliseconds in Downlink direction. | | PowerSaving | |
| l4sInd | | UplinkDownlinkSupport | | O | | 0..1 | | Indicates whether ECN marking for L4S support is supported for the UL, the DL or both, UL and DL.  (NOTE 3) | | L4S | |
| NOTE 1: The attributes "altSerReqs" and "altSerReqsData" are mutually exclusive. Of the two, only the attribute "altSerReqs" may be provided if the attribute "qosReference" is provided, while only the attribute "altSerReqsData" may be provided if the attribute "qosReference" is not provided.  NOTE 2: The "burstArrivalTimeWnd" attribute, within the "tscaiInputUl" and/or "tscaiInputDl" attributes, and the "capBatAdaptation attribute are mutually exclusive.  NOTE 3: Within the MediaComponent entry, the NF service consumer may include either the indication of L4S support within the "l4sInd" attribute or the request for congestion measurements within the "evSubsc" attribute included in one or more entries of the "medSubComps" attribute, but the indication of L4S and the subscription to congestion monitoring shall not be provided simultaneously.  NOTE 4: When the "ExtQoS" feature is supported and the "per" attribute is present, it shall take precedence over the "maxPer" attribute included within the "tsnQos" attribute, if available. | | | | | | | | | | | |

All IP flows within a "MediaSubComponent" data type are permanently disabled by supplying "FlowStatus" data type with a deletion indication.

Bandwidth information and the "fStatus" attribute provided within the MediaComponent applies to all those IP flows within the media component, for which no corresponding information is being provided within the "medSubComps" attribute. As defined in 3GPP TS 29.513 [7], the bandwidth information within the media component level "marBwUl" and "marBwDl" attributes applies separately to each media subcomponent except for media subcomponents with a "flowUsage" attribute with the value "RTCP". The mapping of bandwidth information for RTCP media subcomponent is defined in 3GPP TS 29.513 [7] clause 7.3.3.

\*\*\* Next Change \*\*\*

#### 5.6.2.26 Type MediaComponentRm

This data type is defined in the same way as the "MediaComponent" data type, but:

- with the OpenAPI "nullable: true" property; and

- the removable attributes "afRoutReq" is defined with the removable data type "AfRoutingRequirementRm"; "maxPacketLossRateDl" and "maxPacketLossRateUl" are defined with the removable data type "PacketLossRateRm"; "medSubComps" is defined with the removable data type "MediaSubComponentRm"; "preemptCap" is defined with the removable data type "PreemptionCapabilityRm"; "preemptVuln" is defined with the removable data type "PreemptionVulnerabilityRm"; "marBwDl", "marBwUl", "minDesBwDl", "minDesBwUl", "mirBwDl", "mirBwUl", "maxSuppBwDl", "maxSuppBwUl", "rrBw", "rsBw" are defined with the removable data type "BitRateRm", "per" is defined with the removable data type "PacketErrRateRm"; "sharingKeyDl", "sharingKeyUl", "tsnQos", "tsnQos", "pduSetQosDl" and "pduSetQosUl" are defined with the removable data types "Uint32Rm", "TsnQosContainerRm" and "pduSetQosParaRm"; the removable attributes "desMaxLatency" and "desMaxLoss are defined with the removable data type "FloatRm"; "protoDescDl" and "protoDescUl" are defined with the removable data type "ProtocolDescription", "protoDescUl" is defined with the removable data type "ProtocolDescription", the removable attribute "flusId", "qosReference", "altSerReqs" and "afSfcReq" are defined as nullable in the OpenAPI.

Table 5.6.2.26-1: Definition of type MediaComponentRm

| Attribute name | | Data type | | P | | Cardinality | | Description | | Applicability | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| afAppId | | AfAppId | | O | | 0..1 | | Contains information that identifies the particular service the AF session belongs to. | |  | |
| afRoutReq | | AfRoutingRequirementRm | | O | | 0..1 | | Indicates the AF traffic routing requirements. | | InfluenceOnTrafficRouting | |
| afSfcReq | | AfSfcRequirement | | O | | 0..1 | | Indicates the AF requirements on steering traffic to a pre-configured chain of service functions on N6-LAN. | | SFC | |
| qosReference | | string | | O | | 0..1 | | Identifies a pre-defined QoS information. | | AuthorizationWithRequiredQoS | |
| altSerReqs | | array(string) | | O | | 1..N | | Ordered list of alternative service requirements that include a set of QoS references. The lower the index of the array for a given entry, the higher the priority. (NOTE 1) | | AuthorizationWithRequiredQoS | |
| altSerReqsData | | array(AlternativeServiceRequirementsData) | | O | | 1..N | | Ordered list of alternative service requirements that include individual QoS parameter sets. The lower the index of the array for a given entry, the higher the priority. (NOTE 1) | | AltSerReqsWithIndQoS | |
| disUeNotif | | boolean | | O | | 0..1 | | Indicates to disable QoS flow parameters signalling to the UE when the SMF is notified by the NG-RAN of changes in the fulfilled QoS situation when it is included and set to "true". The fulfilled situation is either the QoS profile or an Alternative QoS Profile. The default value "false" shall apply, if the attribute is not present and has not been supplied previously. | | DisableUENotification | |
| contVer | | ContentVersion | | O | | 0..1 | | Represents the content version of a media component. | | MediaComponentVersioning | |
| desMaxLatency | | FloatRm | | O | | 0..1 | | Indicates a maximum desirable transport level packet latency in milliseconds. | | FLUS, QoSHint | |
| desMaxLoss | | FloatRm | | O | | 0..1 | | Indicates the maximum desirable transport level packet loss rate in percent (without "%" sign). | | FLUS, QoSHint | |
| flusId | | string | | O | | 0..1 | | Indicates that the media component is used for FLUS media.  It is derived from the media level attribute "a=label:" (see IETF RFC 4574 [50]) obtained from the SDP body. It contains the string after "a=label:" starting with "flus" and may be followed by more characters as described in 3GPP TS 26.238 [51]. | | FLUS | |
| maxPacketLossRateDl | | PacketLossRateRm | | O | | 0..1 | | Indicates the downlink maximum rate for lost packets that can be tolerated for the service data flow. | | CHEM | |
| maxPacketLossRateUl | | PacketLossRateRm | | O | | 0..1 | | Indicates the uplink maximum rate for lost packets that can be tolerated for the service data flow. | | CHEM | |
| medCompN | | integer | | M | | 1 | | Identifies the media component number, and it contains the ordinal number of the media component. | |  | |
| medSubComps | | map(MediaSubComponentRm) | | O | | 1..N | | Contains the requested bitrate and filters for the set of service data flows identified by their common flow identifier. The key of the map is the attribute "fNum".  (NOTE 3) | |  | |
| medType | | MediaType | | O | | 0..1 | | Indicates the media type of the service. | |  | |
| marBwUl | | BitRateRm | | O | | 0..1 | | Maximum requested bandwidth for the Uplink. | |  | |
| marBwDl | | BitRateRm | | O | | 0..1 | | Maximum requested bandwidth for the Downlink. | |  | |
| maxSuppBwDl | | BitRateRm | | O | | 0..1 | | Maximum supported bandwidth for the Downlink. | | IMS\_SBI | |
| maxSuppBwUl | | BitRateRm | | O | | 0..1 | | Maximum supported bandwidth for the Uplink. | | IMS\_SBI | |
| minDesBwDl | | BitRateRm | | O | | 0..1 | | Minimum desired bandwidth for the Downlink. | | IMS\_SBI | |
| minDesBwUl | | BitRateRm | | O | | 0..1 | | Minimum desired bandwidth for the Uplink. | | IMS\_SBI | |
| mirBwUl | | BitRateRm | | O | | 0..1 | | Minimum requested bandwidth for the Uplink. | |  | |
| mirBwDl | | BitRateRm | | O | | 0..1 | | Minimum requested bandwidth for the Downlink. | |  | |
| per | | PacketErrRateRm | | O | | 0..1 | | Represents the Packet Error Rate. | | ExtQoS | |
| fStatus | | FlowStatus | | O | | 0..1 | | Indicates whether the status of the service data flows is enabled, or disabled. | |  | |
| preemptCap | | PreemptionCapabilityRm | | O | | 0..1 | | Defines whether the media flow may get resources that were already assigned to another media flow with a lower priority level. | | MCPTT-Preemption | |
| preemptVuln | | PreemptionVulnerabilityRm | | O | | 0..1 | | Defines whether the media flow may lose the resources assigned to it in order to admit a media flow with higher priority level. | | MCPTT-Preemption | |
| prioSharingInd | | PrioritySharingIndicator | | O | | 0..1 | | Indicates that the media flow is allowed to use the same ARP as media flows belonging to other "Individual Application Session Context" resources bound to the same PDU session. | | PrioritySharing | |
| resPrio | | ReservPriority | | O | | 0..1 | | Indicates the reservation priority. | |  | |
| rrBw | | BitRateRm | | O | | 0..1 | | Indicates the maximum required bandwidth in bits per second for RTCP receiver reports within the session component as specified in IETF RFC 3556 [37]. The bandwidth contains all the overhead coming from the IP-layer and the layers above, i.e. IP, UDP and RTCP. | | IMS\_SBI | |
| rsBw | | BitRateRm | | O | | 0..1 | | Indicates the maximum required bandwidth in bits per second for RTCP sender reports within the session component as specified in IETF RFC 3556 [37]. The bandwidth contains all the overhead coming from the IP-layer and the layers above, i.e. IP, UDP and RTCP. | | IMS\_SBI | |
| codecs | | array(CodecData) | | O | | 1..2 | | Indicates the codec data. | |  | |
| sharingKeyDl | | Uint32Rm | | O | | 0..1 | | Identifies which media components share resources in the downlink direction.  If resource sharing applies between media components across "Individual Application Session Context" resources for the same PDU session, the same value of the "sharingKeyDl" attribute shall be used. If resource sharing does not apply among media components across "Individual Application Session Context" resources for the same PDU session, a different value for the "sharingKeyDl" attribute shall be used.  If resource sharing does no longer apply for this media component, the "sharingKeyDl" attribute shall be set to "null". | | ResourceSharing | |
| sharingKeyUl | | Uint32Rm | | O | | 0..1 | | Identifies which media components share resources in the uplink direction.  If resource sharing applies between media components across "Individual Application Session Context" resources for the same PDU session, the same value of the "sharingKeyUl" attribute shall be used. If resource sharing does not apply among media components across "Individual Application Session Context" resources for the same PDU session, a different value for the "sharingKeyUl" attribute shall be used.  If resource sharing does no longer apply for this media component, the "sharingKeyUl" attribute shall be set to "null". | | ResourceSharing | |
| tsnQos | | TsnQoSContainerRm | | O | | 0..1 | | Transports QoS parameters for TSC traffic. | | TimeSensitiveNetworking  XRM\_5G | |
| tscaiInputUl | | TscaiInputContainer | | O | | 0..1 | | Transports TSCAI input parameters for TSC traffic at the ingress interface of the DS-TT/UE (uplink flow direction). | | TimeSensitiveNetworking | |
| tscaiInputDl | | TscaiInputContainer | | O | | 0..1 | | Transports TSCAI input parameters for TSC traffic at the ingress of the NW-TT (downlink flow direction). | | TimeSensitiveNetworking | |
| tscaiTimeDom | | Uinteger | | O | | 0..1 | | Indicates the (g)PTP domain that the (TSN)AF is located in. | | TimeSensitiveCommunication | |
| capBatAdaptation | | boolean | | O | | 0..1 | | Indicates the capability for AF to adjust the burst sending time, when it is supported and set to "true".  The default value is "false" if omitted.  (NOTE 2) | | EnTSCAC | |
| rTLatencyInd | | boolean | | O | | 0..1 | | Indicates the service data flow needs to meet the Round-Trip (RT) latency requirement of the service, when it is included and set to "true".  The default value is "false" if omitted. | | RTLatency | |
| pduSetQosDl | | PduSetQosParaRm | | O | | 0..1 | | PDU Set QoS parameter(s) for the downlink direction. | | PDUSetHandling | |
| pduSetQosUl | | PduSetQosParaRm | | O | | 0..1 | | PDU Set QoS parameter(s) for the uplink direction. | | PDUSetHandling | |
| protoDescDl | | ProtocolDescription | | O | | 0..1 | | Downlink Protocol description for PDU Set identification and/or dectection of the end of data burst in UPF | | PDUSetHandling PowerSaving | |
| protoDescUl | | ProtocolDescription | | O | | 0..1 | | Uplink Protocol description for PDU Set identification in UE. | | PDUSetHandling | |
| periodUl | | DurationMilliSecRm | | O | | 0..1 | | Indicates the time period between the start of the two data bursts in units of milliseconds in Uplink direction. | | PowerSaving | |
| periodDl | | DurationMilliSecRm | | O | | 0..1 | | Indicates the time period between the start of the two data bursts in units of milliseconds in Downlink direction. | | PowerSaving | |
| l4sInd | | UplinkDownlinkSupport | | O | | 0..1 | | When provided, it represents an explicit indication of whether ECN marking for L4S support is supported for the UL, the DL or both, UL and DL.  It may be present when the media component is initially provided.  (NOTE 3) | | L4S | |
| NOTE 1: The attributes "altSerReqs" and "altSerReqsData" are mutually exclusive.  NOTE 2: The "burstArrivalTimeWnd" attribute, within the "tscaiInputUl" and/or "tscaiInputDl" attributes, and the "capBatAdaptation" attribute are mutually exclusive.  NOTE 3: Within a MediaComponentRm entry, the NF service consumer may include either the indication of L4S support within the "l4sInd" attribute or the request for congestion measurements within the "evSubsc" attribute included in one or more entries of the "medSubComps" attribute. A MediaComponent entry within the Individual Application Session Context resource shall not contain simultaneously both, the indication of L4S support and the subscription to congestion monitoring. | | | | | | | | | | | |

\*\*\* Next Change \*\*\*

# A.2 Npcf\_PolicyAuthorization API

openapi: 3.0.0

info:

title: Npcf\_PolicyAuthorization Service API

version: 1.3.0-alpha.6

description: |

PCF Policy Authorization Service.

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externalDocs:

description: 3GPP TS 29.514 V18.5.0; 5G System; Policy Authorization Service; Stage 3.

url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.514/'

servers:

- url: '{apiRoot}/npcf-policyauthorization/v1'

variables:

apiRoot:

default: https://example.com

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

security:

- {}

- oAuth2ClientCredentials:

- npcf-policyauthorization

paths:

/app-sessions:

post:

summary: Creates a new Individual Application Session Context resource

operationId: PostAppSessions

tags:

- Application Sessions (Collection)

security:

- {}

- oAuth2ClientCredentials:

- npcf-policyauthorization

- oAuth2ClientCredentials:

- npcf-policyauthorization

- npcf-policyauthorization:policy-auth-mgmt

requestBody:

description: Contains the information for the creation the resource.

required: true

content:

application/json:

schema:

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

responses:

'201':

description: Successful creation of the resource

content:

application/json:

schema:

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

headers:

Location:

description: >

Contains the URI of the created individual application session context resource,

according to the structure

{apiRoot}/npcf-policyauthorization/v1/app-sessions/{appSessionId}

or the URI of the created events subscription sub-resource,

according to the structure

{apiRoot}/npcf-policyauthorization/v1/app-sessions/{appSessionId}

/events-subscription

required: true

schema:

type: string

'303':

description: >

See Other. The result of the HTTP POST request would be equivalent to the existing

Application Session Context.

headers:

Location:

description: >

Contains the URI of the existing individual Application Session Context resource.

required: true

schema:

type: string

'400':

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

'401':

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

'403':

description: Forbidden

content:

application/problem+json:

schema:

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

headers:

Retry-After:

description: >

Indicates the time the AF has to wait before making a new request. It can be a

non-negative integer (decimal number) indicating the number of seconds the AF

has to wait before making a new request or an HTTP-date after which the AF can

retry a new request.

schema:

anyOf:

- type: integer

- type: string

'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:

terminationRequest:

'{$request.body#/ascReqData/notifUri}/terminate':

post:

requestBody:

description: >

Request of the termination of the Individual Application Session Context.

required: true

content:

application/json:

schema:

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

responses:

'204':

description: The receipt of the notification is acknowledged.

'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'

eventNotification:

'{$request.body#/ascReqData/evSubsc/notifUri}/notify':

post:

requestBody:

description: Notification of an event occurrence in the PCF.

required: true

content:

application/json:

schema:

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

responses:

'204':

description: The receipt of the notification is acknowledged.

'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'

detected5GsBridgeForPduSession:

'{$request.body#/ascReqData/evSubsc/notifUri}/new-bridge':

post:

requestBody:

description: Notification of a new TSC user plane node detected in the PCF.

required: true

content:

application/json:

schema:

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

responses:

'204':

description: The receipt of the notification is acknowledged.

'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'

eventNotificationPduSession:

'{$request.body#/ascReqData/evSubsc/notifUri}/pdu-session':

post:

requestBody:

description: Notification of PDU session established or terminated.

required: true

content:

application/json:

schema:

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

responses:

'204':

description: The receipt of the notification is acknowledged.

'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'

/app-sessions/pcscf-restoration:

post:

summary: "Indicates P-CSCF restoration and does not create an Individual Application Session Context"

operationId: PcscfRestoration

tags:

- PCSCF Restoration Indication

requestBody:

description: PCSCF Restoration Indication.

required: true

content:

application/json:

schema:

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

responses:

'204':

description: The deletion is confirmed without returning additional data.

'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'

/app-sessions/{appSessionId}:

get:

summary: "Reads an existing Individual Application Session Context"

operationId: GetAppSession

tags:

- Individual Application Session Context (Document)

security:

- {}

- oAuth2ClientCredentials:

- npcf-policyauthorization

- oAuth2ClientCredentials:

- npcf-policyauthorization

- npcf-policyauthorization:policy-auth-mgmt

parameters:

- name: appSessionId

description: String identifying the resource.

in: path

required: true

schema:

type: string

responses:

'200':

description: A representation of the resource is returned.

content:

application/json:

schema:

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

'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'

patch:

summary: "Modifies an existing Individual Application Session Context"

operationId: ModAppSession

tags:

- Individual Application Session Context (Document)

security:

- {}

- oAuth2ClientCredentials:

- npcf-policyauthorization

- oAuth2ClientCredentials:

- npcf-policyauthorization

- npcf-policyauthorization:policy-auth-mgmt

parameters:

- name: appSessionId

description: String identifying the resource.

in: path

required: true

schema:

type: string

requestBody:

description: Modification of the resource.

required: true

content:

application/merge-patch+json:

schema:

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

responses:

'200':

description: >

Successful modification of the resource and a representation of that resource is

returned.

content:

application/json:

schema:

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

'204':

description: The successful modification.

'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':

description: Forbidden

content:

application/problem+json:

schema:

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

headers:

Retry-After:

description: >

Indicates the time the AF has to wait before making a new request. It can be a

non-negative integer (decimal number) indicating the number of seconds the AF has

to wait before making a new request or an HTTP-date after which the AF can retry

a new request.

schema:

anyOf:

- type: integer

- type: string

'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:

eventNotification:

'{$request.body#/ascReqData/evSubsc/notifUri}/notify':

post:

requestBody:

description: Notification of an event occurrence in the PCF.

required: true

content:

application/json:

schema:

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

responses:

'204':

description: The receipt of the notification is acknowledged

'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'

/app-sessions/{appSessionId}/delete:

post:

summary: "Deletes an existing Individual Application Session Context"

operationId: DeleteAppSession

tags:

- Individual Application Session Context (Document)

security:

- {}

- oAuth2ClientCredentials:

- npcf-policyauthorization

- oAuth2ClientCredentials:

- npcf-policyauthorization

- npcf-policyauthorization:policy-auth-mgmt

parameters:

- name: appSessionId

description: String identifying the Individual Application Session Context resource.

in: path

required: true

schema:

type: string

requestBody:

description: >

Deletion of the Individual Application Session Context resource, req notification.

required: false

content:

application/json:

schema:

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

responses:

'200':

description: The deletion of the resource is confirmed and a resource is returned.

content:

application/json:

schema:

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

'204':

description: The deletion is confirmed without returning additional data.

'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'

/app-sessions/{appSessionId}/events-subscription:

put:

summary: "creates or modifies an Events Subscription subresource"

operationId: updateEventsSubsc

tags:

- Events Subscription (Document)

parameters:

- name: appSessionId

description: String identifying the Events Subscription resource.

in: path

required: true

schema:

type: string

requestBody:

description: Creation or modification of an Events Subscription resource.

required: true

content:

application/json:

schema:

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

responses:

'201':

description: >

The creation of the Events Subscription resource is confirmed and its representation is

returned.

content:

application/json:

schema:

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

headers:

Location:

description: >

Contains the URI of the created Events Subscription resource,

according to the structure

{apiRoot}/npcf-policyauthorization/v1/app-sessions/{appSessionId}/

events-subscription

required: true

schema:

type: string

'200':

description: >

The modification of the Events Subscription resource is confirmed its representation is

returned.

content:

application/json:

schema:

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

'204':

description: >

The modification of the Events Subscription subresource is confirmed without returning

additional data.

'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'

callbacks:

eventNotification:

'{$request.body#/notifUri}/notify':

post:

requestBody:

description: >

Contains the information for the notification of an event occurrence in the PCF.

required: true

content:

application/json:

schema:

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

responses:

'204':

description: The receipt of the notification is acknowledged.

'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'

delete:

summary: deletes the Events Subscription subresource

operationId: DeleteEventsSubsc

tags:

- Events Subscription (Document)

parameters:

- name: appSessionId

description: String identifying the Individual Application Session Context resource.

in: path

required: true

schema:

type: string

responses:

'204':

description: >

The deletion of the of the Events Subscription sub-resource is confirmed without

returning additional data.

'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'

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{nrfApiRoot}/oauth2/token'

scopes:

npcf-policyauthorization: Access to the Npcf\_PolicyAuthorization API

npcf-policyauthorization:policy-auth-mgmt: >

Access to service operations applying to PCF Policy Authorization for creation,

updation, deletion, retrieval.

schemas:

AppSessionContext:

description: Represents an Individual Application Session Context resource.

type: object

properties:

ascReqData:

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

ascRespData:

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

evsNotif:

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

AppSessionContextReqData:

description: Identifies the service requirements of an Individual Application Session Context.

type: object

required:

- notifUri

- suppFeat

oneOf:

- required: [ueIpv4]

- required: [ueIpv6]

- required: [ueMac]

properties:

afAppId:

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

afChargId:

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

afReqData:

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

afRoutReq:

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

afSfcReq:

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

aspId:

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

bdtRefId:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/BdtReferenceId'

dnn:

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

evSubsc:

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

mcpttId:

description: Indication of MCPTT service request.

type: string

mcVideoId:

description: Indication of MCVideo service request.

type: string

medComponents:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains media component information. The key of the map is the medCompN attribute.

multiModalId:

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

ipDomain:

type: string

mpsAction:

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

mpsId:

description: Indication of MPS service request.

type: string

mcsId:

description: Indication of MCS service request.

type: string

preemptControlInfo:

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

qosDuration:

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

qosInactInt:

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

resPrio:

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

servInfStatus:

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

notifUri:

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

servUrn:

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

sliceInfo:

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

sponId:

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

sponStatus:

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

supi:

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

gpsi:

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

suppFeat:

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

ueIpv4:

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

ueIpv6:

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

ueMac:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

tsnBridgeManCont:

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

tsnPortManContDstt:

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

tsnPortManContNwtts:

type: array

items:

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

minItems: 1

tscNotifUri:

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

tscNotifCorreId:

type: string

description: >

Correlation identifier for TSC management information notifications.

AppSessionContextRespData:

description: >

Describes the authorization data of an Individual Application Session Context created by

the PCF.

type: object

properties:

servAuthInfo:

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

directNotifReports:

type: array

items:

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

minItems: 1

description: >

QoS monitoring parameter(s) that cannot be directly notified for the indicated flows.

ueIds:

type: array

items:

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

minItems: 1

suppFeat:

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

AppSessionContextUpdateDataPatch:

description: >

Identifies the modifications to an Individual Application Session Context and/or the

modifications to the sub-resource Events Subscription.

type: object

properties:

ascReqData:

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

AppSessionContextUpdateData:

description: >

Identifies the modifications to the "ascReqData" property of an Individual Application

Session Context which may include the modifications to the sub-resource Events Subscription.

type: object

properties:

afAppId:

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

afRoutReq:

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

afSfcReq:

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

aspId:

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

bdtRefId:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/BdtReferenceId'

evSubsc:

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

mcpttId:

description: Indication of MCPTT service request.

type: string

mcVideoId:

description: Indication of modification of MCVideo service.

type: string

medComponents:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains media component information. The key of the map is the medCompN attribute.

mpsAction:

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

mpsId:

description: Indication of MPS service request.

type: string

mcsId:

description: Indication of MCS service request.

type: string

preemptControlInfo:

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

qosDuration:

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

qosInactInt:

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

resPrio:

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

servInfStatus:

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

sipForkInd:

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

sponId:

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

sponStatus:

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

tsnBridgeManCont:

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

tsnPortManContDstt:

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

tsnPortManContNwtts:

type: array

items:

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

minItems: 1

tscNotifUri:

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

tscNotifCorreId:

type: string

description: >

Correlation identifier for TSC management information notifications.

EventsSubscReqData:

description: Identifies the events the application subscribes to.

type: object

required:

- events

properties:

events:

type: array

items:

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

minItems: 1

notifUri:

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

reqQosMonParams:

type: array

items:

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

minItems: 1

qosMon:

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

qosMonDatRate:

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

pdvReqMonParams:

type: array

items:

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

minItems: 1

pdvMon:

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

congestMon:

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

rttMon:

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

reqAnis:

type: array

items:

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

minItems: 1

usgThres:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/UsageThreshold'

notifCorreId:

type: string

afAppIds:

type: array

items:

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

minItems: 1

directNotifInd:

type: boolean

description: >

Indicates whether the direct event notification is requested (true) or not (false) for

the provided QoS monitoring parameters.

Default value is false.

avrgWndw:

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

EventsSubscReqDataRm:

description: >

This data type is defined in the same way as the EventsSubscReqData data type, but with

the OpenAPI nullable property set to true.

type: object

required:

- events

properties:

events:

type: array

items:

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

notifUri:

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

reqQosMonParams:

type: array

items:

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

minItems: 1

qosMon:

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

qosMonDatRate:

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

pdvReqMonParams:

type: array

items:

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

minItems: 1

pdvMon:

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

congestMon:

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

reqAnis:

type: array

items:

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

minItems: 1

usgThres:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/UsageThresholdRm'

notifCorreId:

type: string

directNotifInd:

type: boolean

nullable: true

description: >

Indicates whether the direct event notification is requested (true) or not (false) for

the provided and/or previously provided QoS monitoring parameters.

avrgWndw:

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

nullable: true

MediaComponent:

description: Identifies a media component.

type: object

required:

- medCompN

allOf:

- not:

required: [altSerReqs,altSerReqsData]

- not:

required: [qosReference,altSerReqsData]

properties:

afAppId:

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

afRoutReq:

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

afSfcReq:

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

qosReference:

type: string

disUeNotif:

type: boolean

altSerReqs:

type: array

items:

type: string

minItems: 1

altSerReqsData:

type: array

items:

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

minItems: 1

description: >

Contains alternative service requirements that include individual QoS parameter sets.

contVer:

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

codecs:

type: array

items:

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

minItems: 1

maxItems: 2

desMaxLatency:

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

desMaxLoss:

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

flusId:

type: string

fStatus:

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

marBwDl:

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

marBwUl:

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

maxPacketLossRateDl:

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

maxPacketLossRateUl:

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

maxSuppBwDl:

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

maxSuppBwUl:

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

medCompN:

type: integer

medSubComps:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the requested bitrate and filters for the set of service data flows identified

by their common flow identifier. The key of the map is the fNum attribute.

medType:

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

minDesBwDl:

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

minDesBwUl:

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

mirBwDl:

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

mirBwUl:

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

per:

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

preemptCap:

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

preemptVuln:

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

prioSharingInd:

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

resPrio:

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

rrBw:

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

rsBw:

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

sharingKeyDl:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

sharingKeyUl:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32'

tsnQos:

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

tscaiInputDl:

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

tscaiInputUl:

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

tscaiTimeDom:

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

capBatAdaptation:

type: boolean

description: >

Indicates the capability for AF to adjust the burst sending time, when it is supported

and set to "true". The default value is "false" if omitted.

rTLatencyInd:

type: boolean

description: >

Indicates the service data flow needs to meet the Round-Trip (RT) latency requirement of

the service, when it is included and set to "true". The default value is "false" if

omitted.

pduSetQosDl:

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

pduSetQosUl:

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

protoDescDl:

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

protoDescUl:

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

periodUl:

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

periodDl:

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

l4sInd:

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

MediaComponentRm:

description: >

This data type is defined in the same way as the MediaComponent data type, but with the

OpenAPI nullable property set to true.

type: object

required:

- medCompN

not:

required: [altSerReqs,altSerReqsData]

properties:

afAppId:

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

afRoutReq:

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

afSfcReq:

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

qosReference:

type: string

nullable: true

altSerReqs:

type: array

items:

type: string

minItems: 1

nullable: true

altSerReqsData:

type: array

items:

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

minItems: 1

description: >

Contains removable alternative service requirements that include individual QoS

parameter sets.

nullable: true

disUeNotif:

type: boolean

contVer:

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

codecs:

type: array

items:

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

minItems: 1

maxItems: 2

desMaxLatency:

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

desMaxLoss:

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

flusId:

type: string

nullable: true

fStatus:

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

marBwDl:

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

marBwUl:

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

maxPacketLossRateDl:

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

maxPacketLossRateUl:

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

maxSuppBwDl:

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

maxSuppBwUl:

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

medCompN:

type: integer

medSubComps:

type: object

additionalProperties:

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

minProperties: 1

description: >

Contains the requested bitrate and filters for the set of service data flows identified

by their common flow identifier. The key of the map is the fNum attribute.

medType:

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

minDesBwDl:

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

minDesBwUl:

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

mirBwDl:

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

mirBwUl:

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

per:

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

preemptCap:

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

preemptVuln:

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

prioSharingInd:

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

resPrio:

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

rrBw:

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

rsBw:

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

sharingKeyDl:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32Rm'

sharingKeyUl:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Uint32Rm'

tsnQos:

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

tscaiInputDl:

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

tscaiInputUl:

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

tscaiTimeDom:

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

capBatAdaptation:

type: boolean

description: >

Indicates the capability for AF to adjust the burst sending time, when it is supported

and set to "true". The default value is "false" if omitted.

rTLatencyInd:

type: boolean

description: >

Indicates the service data flow needs to meet the Round-Trip (RT) latency requirement of

the service, when it is included and set to "true". The default value is "false" if

omitted.

pduSetQosDl:

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

pduSetQosUl:

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

protoDescDl:

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

protoDescUl:

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

periodUl:

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

periodDl:

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

l4sInd:

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

nullable: true

MediaSubComponent:

description: Identifies a media subcomponent.

type: object

required:

- fNum

properties:

afSigProtocol:

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

ethfDescs:

type: array

items:

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

minItems: 1

maxItems: 2

fNum:

type: integer

fDescs:

type: array

items:

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

minItems: 1

maxItems: 2

addInfoFlowDescs:

type: array

items:

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

minItems: 1

maxItems: 2

description: >

Represents additional flow description information (flow label and IPsec SPI)

per Uplink and/or Downlink IP flows.

fStatus:

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

marBwDl:

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

marBwUl:

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

tosTrCl:

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

flowUsage:

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

evSubsc:

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

MediaSubComponentRm:

description: >

This data type is defined in the same way as the MediaSubComponent data type, but with the

OpenAPI nullable property set to true. Removable attributes marBwDl and marBwUl are defined

with the corresponding removable data type.

type: object

required:

- fNum

properties:

afSigProtocol:

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

ethfDescs:

type: array

items:

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

minItems: 1

maxItems: 2

nullable: true

fNum:

type: integer

fDescs:

type: array

items:

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

minItems: 1

maxItems: 2

nullable: true

addInfoFlowDescs:

type: array

items:

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

minItems: 1

maxItems: 2

nullable: true

description: >

Represents additional flow description information (flow label and IPsec SPI)

per Uplink and/or Downlink IP flows.

fStatus:

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

marBwDl:

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

marBwUl:

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

tosTrCl:

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

flowUsage:

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

evSubsc:

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

nullable: true

EventsNotification:

description: Describes the notification of a matched event.

type: object

required:

- evSubsUri

- evNotifs

properties:

adReports:

type: array

items:

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

minItems: 1

description: Includes the detected application report.

accessType:

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

addAccessInfo:

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

relAccessInfo:

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

anChargAddr:

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

anChargIds:

type: array

items:

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

minItems: 1

anGwAddr:

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

l4sReports:

type: array

items:

$ref: '#/components/schemas/L4sSupport'

minItems: 1

evSubsUri:

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

evNotifs:

type: array

items:

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

minItems: 1

failedResourcAllocReports:

type: array

items:

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

minItems: 1

succResourcAllocReports:

type: array

items:

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

minItems: 1

noNetLocSupp:

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

outOfCredReports:

type: array

items:

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

minItems: 1

plmnId:

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

qncReports:

type: array

items:

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

minItems: 1

qosMonReports:

type: array

items:

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

minItems: 1

qosMonDatRateReps:

type: array

items:

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

minItems: 1

pdvMonReports:

type: array

items:

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

minItems: 1

congestReports:

type: array

items:

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

minItems: 1

rttMonReports:

type: array

items:

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

minItems: 1

ranNasRelCauses:

type: array

items:

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

minItems: 1

description: Contains the RAN and/or NAS release cause.

ratType:

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

satBackhaulCategory:

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

ueLoc:

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

ueLocTime:

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

ueTimeZone:

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

usgRep:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/AccumulatedUsage'

urspEnfRep:

$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'

tsnBridgeManCont:

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

tsnPortManContDstt:

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

tsnPortManContNwtts:

type: array

items:

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

minItems: 1

ipv4AddrList:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4AddrMask'

minItems: 1

ipv6PrefixList:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Prefix'

minItems: 1

batOffsetInfo:

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

AfEventSubscription:

description: Describes the event information delivered in the subscription.

type: object

required:

- event

properties:

event:

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

notifMethod:

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

repPeriod:

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

waitTime:

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

qosMonParamType:

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

AfEventNotification:

description: Describes the event information delivered in the notification.

type: object

required:

- event

properties:

event:

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

flows:

type: array

items:

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

minItems: 1

retryAfter:

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

TerminationInfo:

description: >

Indicates the cause for requesting the deletion of the Individual Application Session

Context resource.

type: object

required:

- termCause

- resUri

properties:

termCause:

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

resUri:

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

AfRoutingRequirement:

description: Describes AF requirements on routing traffic.

type: object

properties:

appReloc:

type: boolean

routeToLocs:

type: array

items:

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

minItems: 1

spVal:

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

tempVals:

type: array

items:

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

minItems: 1

upPathChgSub:

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

addrPreserInd:

type: boolean

simConnInd:

type: boolean

description: >

Indicates whether simultaneous connectivity should be temporarily maintained for the

source and target PSA.

simConnTerm:

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

easIpReplaceInfos:

type: array

items:

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

minItems: 1

description: Contains EAS IP replacement information.

easRedisInd:

type: boolean

description: Indicates the EAS rediscovery is required.

maxAllowedUpLat:

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

tfcCorreInfo:

$ref: 'TS29519\_Application\_Data.yaml#/components/schemas/TrafficCorrelationInfo'

AfSfcRequirement:

description: Describes AF requirements on steering traffic to N6-LAN.

type: object

properties:

sfcIdDl:

type: string

description: Reference to a pre-configured SFC for downlink traffic.

nullable: true

sfcIdUl:

type: string

description: Reference to a pre-configured SFC for uplink traffic.

nullable: true

spVal:

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

metadata:

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

nullable: true

SpatialValidity:

description: Describes explicitly the route to an Application location.

type: object

required:

- presenceInfoList

properties:

presenceInfoList:

type: object

additionalProperties:

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

minProperties: 1

description: >

Defines the presence information provisioned by the AF. The praId attribute within the

PresenceInfo data type is the key of the map.

SpatialValidityRm:

description: >

This data type is defined in the same way as the SpatialValidity data type, but with the

OpenAPI nullable property set to true.

type: object

required:

- presenceInfoList

properties:

presenceInfoList:

type: object

additionalProperties:

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

minProperties: 1

description: >

Defines the presence information provisioned by the AF. The praId attribute within the

PresenceInfo data type is the key of the map.

nullable: true

AfRoutingRequirementRm:

description: >

This data type is defined in the same way as the AfRoutingRequirement data type, but with

the OpenAPI nullable property set to true and the spVal and tempVals attributes defined as

removable.

type: object

properties:

appReloc:

type: boolean

routeToLocs:

type: array

items:

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

minItems: 1

nullable: true

spVal:

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

tempVals:

type: array

items:

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

minItems: 1

nullable: true

upPathChgSub:

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

addrPreserInd:

type: boolean

nullable: true

simConnInd:

type: boolean

nullable: true

description: >

Indicates whether simultaneous connectivity should be temporarily maintained for the

source and target PSA.

simConnTerm:

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

easIpReplaceInfos:

type: array

items:

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

minItems: 1

description: Contains EAS IP replacement information.

nullable: true

easRedisInd:

type: boolean

description: Indicates the EAS rediscovery is required.

maxAllowedUpLat:

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

tfcCorreInfo:

$ref: 'TS29519\_Application\_Data.yaml#/components/schemas/TrafficCorrelationInfo'

nullable: true

AnGwAddress:

description: Describes the address of the access network gateway control node.

type: object

anyOf:

- required: [anGwIpv4Addr]

- required: [anGwIpv6Addr]

properties:

anGwIpv4Addr:

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

anGwIpv6Addr:

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

Flows:

description: Identifies the flows.

type: object

required:

- medCompN

properties:

contVers:

type: array

items:

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

minItems: 1

fNums:

type: array

items:

type: integer

minItems: 1

medCompN:

type: integer

EthFlowDescription:

description: Identifies an Ethernet flow.

type: object

required:

- ethType

properties:

destMacAddr:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

ethType:

type: string

fDesc:

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

fDir:

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

sourceMacAddr:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

vlanTags:

type: array

items:

type: string

minItems: 1

maxItems: 2

srcMacAddrEnd:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

destMacAddrEnd:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

ResourcesAllocationInfo:

description: Describes the status of the PCC rule(s) related to certain media components.

type: object

properties:

mcResourcStatus:

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

flows:

type: array

items:

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

minItems: 1

altSerReq:

type: string

description: >

Indicates whether NG-RAN supports alternative QoS parameters. The default value false

shall apply if the attribute is not present. It shall be set to false to indicate that

the lowest priority alternative QoS profile could not be fulfilled.

TemporalValidity:

description: Indicates the time interval(s) during which the AF request is to be applied.

type: object

properties:

startTime:

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

stopTime:

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

QosNotificationControlInfo:

description: >

Indicates whether the QoS targets for a GRB flow are not guaranteed or guaranteed again.

type: object

required:

- notifType

properties:

notifType:

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

flows:

type: array

items:

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

minItems: 1

altSerReq:

type: string

description: >

Indicates the alternative service requirement NG-RAN can guarantee. When it is omitted

and the notifType attribute is set to NOT\_GUAARANTEED it indicates that the lowest

priority alternative alternative service requirement could not be fulfilled by NG-RAN.

altSerReqNotSuppInd:

type: boolean

description: >

When present and set to true it indicates that Alternative Service Requirements are not

supported by NG-RAN.

AcceptableServiceInfo:

description: Indicates the maximum bandwidth that shall be authorized by the PCF.

type: object

properties:

accBwMedComps:

type: object

additionalProperties:

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

description: >

Indicates the maximum bandwidth that shall be authorized by the PCF for each media

component of the map. The key of the map is the media component number.

minProperties: 1

marBwUl:

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

marBwDl:

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

UeIdentityInfo:

description: Represents 5GS-Level UE identities.

type: object

anyOf:

- required: [gpsi]

- required: [pei]

- required: [supi]

properties:

gpsi:

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

pei:

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

supi:

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

AccessNetChargingIdentifier:

description: Describes the access network charging identifier.

type: object

oneOf:

- required: [accNetChaIdValue]

- required: [accNetChargIdString]

properties:

accNetChaIdValue:

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

accNetChargIdString:

type: string

description: A character string containing the access network charging identifier.

flows:

type: array

items:

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

minItems: 1

OutOfCreditInformation:

description: >

Indicates the SDFs without available credit and the corresponding termination action.

type: object

required:

- finUnitAct

properties:

finUnitAct:

$ref: 'TS32291\_Nchf\_ConvergedCharging.yaml#/components/schemas/FinalUnitAction'

flows:

type: array

items:

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

minItems: 1

QosMonitoringInformation:

description: >

Indicates the QoS Monitoring information to report, i.e. UL and/or DL and or

round trip delay.

type: object

properties:

repThreshDl:

type: integer

repThreshUl:

type: integer

repThreshRp:

type: integer

repThreshDatRateUl:

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

repThreshDatRateDl:

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

conThreshDl:

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

conThreshUl:

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

PduSessionTsnBridge:

description: >

Contains the new TSC user plane node information and may contain the DS-TT port and/or

NW-TT port management information.

type: object

required:

- tsnBridgeInfo

properties:

tsnBridgeInfo:

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

tsnBridgeManCont:

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

tsnPortManContDstt:

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

tsnPortManContNwtts:

type: array

items:

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

minItems: 1

ueIpv4Addr:

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

dnn:

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

snssai:

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

ipDomain:

type: string

description: IPv4 address domain identifier.

ueIpv6AddrPrefix:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Prefix'

QosMonitoringInformationRm:

description: >

This data type is defined in the same way as the QosMonitoringInformation data type, but

with the OpenAPI nullable property set to true.

type: object

properties:

repThreshDl:

type: integer

repThreshUl:

type: integer

repThreshRp:

type: integer

repThreshDatRateUl:

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

repThreshDatRateDl:

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

conThreshDl:

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

conThreshUl:

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

nullable: true

PcscfRestorationRequestData:

description: Indicates P-CSCF restoration.

type: object

oneOf:

- required: [ueIpv4]

- required: [ueIpv6]

properties:

dnn:

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

ipDomain:

type: string

sliceInfo:

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

supi:

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

ueIpv4:

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

ueIpv6:

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

QosMonitoringReport:

description: QoS Monitoring reporting information.

type: object

properties:

flows:

type: array

items:

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

minItems: 1

ulDelays:

type: array

items:

type: integer

minItems: 1

dlDelays:

type: array

items:

type: integer

minItems: 1

rtDelays:

type: array

items:

type: integer

minItems: 1

pdmf:

type: boolean

description: Represents the packet delay measurement failure indicator.

ulConInfo:

type: array

items:

type: integer

minItems: 1

dlConInfo:

type: array

items:

type: integer

minItems: 1

ulDataRate:

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

dlDataRate:

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

TsnQosContainer:

description: Indicates TSC Traffic QoS.

type: object

properties:

maxTscBurstSize:

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

tscPackDelay:

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

maxPer:

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

tscPrioLevel:

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

TsnQosContainerRm:

description: Indicates removable TSC Traffic QoS.

type: object

properties:

maxTscBurstSize:

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

tscPackDelay:

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

maxPer:

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

tscPrioLevel:

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

nullable: true

TscaiInputContainer:

description: Indicates TSC Traffic pattern.

type: object

properties:

periodicity:

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

burstArrivalTime:

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

surTimeInNumMsg:

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

surTimeInTime:

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

burstArrivalTimeWnd:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/TimeWindow'

periodicityRange:

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

nullable: true

AppDetectionReport:

description: >

Indicates the start or stop of the detected application traffic and the application

identifier of the detected application traffic.

type: object

required:

- adNotifType

- afAppId

properties:

adNotifType:

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

afAppId:

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

PduSessionEventNotification:

description: >

Indicates PDU session information for the concerned established/terminated PDU session.

type: object

required:

- evNotif

properties:

evNotif:

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

supi:

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

ueIpv4:

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

ueIpv6:

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

ueMac:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

status:

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

pcfInfo:

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

dnn:

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

snssai:

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

gpsi:

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

PcfAddressingInfo:

description: Contains PCF address information.

type: object

properties:

pcfFqdn:

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

pcfIpEndPoints:

type: array

items:

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

minItems: 1

description: IP end points of the PCF hosting the Npcf\_PolicyAuthorization service.

bindingInfo:

type: string

description: contains the binding indications of the PCF.

AlternativeServiceRequirementsData:

description: Contains an alternative QoS related parameter set.

type: object

required:

- altQosParamSetRef

properties:

altQosParamSetRef:

type: string

description: Reference to this alternative QoS related parameter set.

gbrUl:

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

gbrDl:

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

pdb:

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

per:

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

EventsSubscPutData:

description: >

Identifies the events the application subscribes to within an Events Subscription

sub-resource data. It may contain the notification of the already met events.

anyOf:

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

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

PeriodicityRange:

description: >

Contains the acceptable range (which is formulated as lower bound and upper bound of

the periodicity of the start twobursts in reference to the external GM) or

acceptable periodicity value(s) (which is formulated as a list of values for

the periodicity).

type: object

oneOf:

- required: [lowerBound, upperBound]

- required: [periodicVals]

properties:

lowerBound:

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

upperBound:

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

periodicVals:

type: array

items:

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

minItems: 1

BatOffsetInfo:

description: >

Indicates the offset of the BAT and the optionally adjusted periodicity.

type: object

required:

- ranBatOffsetNotif

properties:

ranBatOffsetNotif:

type: integer

description: >

Indicates the BAT offset of the arrival time of the data burst in units

of milliseconds.

adjPeriod:

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

flows:

type: array

items:

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

minItems: 1

description: >

Identification of the flows. If no flows are provided, the BAT offset applies

for all flows of the AF session.

PdvMonitoringReport:

description: Packet Delay Variation reporting information.

type: object

properties:

flows:

type: array

items:

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

minItems: 1

description: Identification of the flows.

ulPdv:

type: integer

description: Uplink packet delay variation in units of milliseconds.

dlPdv:

type: integer

description: Downlink packet delay variation in units of milliseconds.

rtPdv:

type: integer

description: Round trip packet delay variation in units of milliseconds.

AddFlowDescriptionInfo:

description: Contains additional flow description information.

type: object

properties:

spi:

type: string

description: >

4-octet string representing the security parameter index of the IPSec packet

in hexadecimal representation.

flowLabel:

type: string

description: >

3-octet string representing the IPv6 flow label header field in hexadecimal

representation.

flowDir:

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

L4sSupport:

description: >

Indicates whether the ECN marking for L4S support is not available or available

again in 5GS.

type: object

required:

- notifType

properties:

notifType:

$ref: '#/components/schemas/L4sNotifType'

flows:

type: array

items:

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

minItems: 1

DirectNotificationReport:

description: >

Represents the QoS monitoring parameters that cannot be directly notified for

the indicated flows.

type: object

required:

- qosMonParamType

properties:

qosMonParamType:

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

flows:

type: array

items:

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

minItems: 1

#

# EXTENDED PROBLEMDETAILS

#

ExtendedProblemDetails:

description: Extends ProblemDetails to also include the acceptable service info.

allOf:

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

- type: object

properties:

acceptableServInfo:

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

#

# SIMPLE DATA TYPES

#

AfAppId:

description: Contains an AF application identifier.

type: string

AspId:

description: Contains an identity of an application service provider.

type: string

CodecData:

description: Contains codec related information.

type: string

ContentVersion:

description: Represents the content version of some content.

type: integer

FlowDescription:

description: Defines a packet filter of an IP flow.

type: string

SponId:

description: Contains an identity of a sponsor.

type: string

ServiceUrn:

description: Contains values of the service URN and may include subservices.

type: string

TosTrafficClass:

description: >

2-octet string, where each octet is encoded in hexadecimal representation. The first octet

contains the IPv4 Type-of-Service or the IPv6 Traffic-Class field and the second octet

contains the ToS/Traffic Class mask field.

type: string

TosTrafficClassRm:

description: >

This data type is defined in the same way as the TosTrafficClass data type, but with the

OpenAPI nullable property set to true.

type: string

nullable: true

MultiModalId:

description: >

This data type contains a multi-modal service identifier.

type: string

TscPriorityLevel:

description: Represents the priority level of TSC Flows.

type: integer

minimum: 1

maximum: 8

TscPriorityLevelRm:

description: >

This data type is defined in the same way as the TscPriorityLevel data type, but with the

OpenAPI nullable property set to true.

type: integer

minimum: 1

maximum: 8

nullable: true

DurationMilliSec:

description: Indicates the time interval in units of milliseconds.

type: integer

DurationMilliSecRm:

description: >

This data type is defined in the same way as the "DurationMillisec" data type, but with the

OpenAPI nullable property set to true.

type: integer

#

# ENUMERATIONS DATA TYPES

#

MediaType:

description: Indicates the media type of a media component.

anyOf:

- type: string

enum:

- AUDIO

- VIDEO

- DATA

- APPLICATION

- CONTROL

- TEXT

- MESSAGE

- OTHER

- type: string

description: >

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

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

MpsAction:

description: >

Indicates whether it is an invocation, a revocation or an invocation with authorization of

the MPS for DTS service.

anyOf:

- type: string

enum:

- DISABLE\_MPS\_FOR\_DTS

- ENABLE\_MPS\_FOR\_DTS

- AUTHORIZE\_AND\_ENABLE\_MPS\_FOR\_DTS

- AUTHORIZE\_AND\_ENABLE\_MPS\_FOR\_AF\_SIGNALLING

- type: string

description: >

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

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

ReservPriority:

description: Indicates the reservation priority.

anyOf:

- type: string

enum:

- PRIO\_1

- PRIO\_2

- PRIO\_3

- PRIO\_4

- PRIO\_5

- PRIO\_6

- PRIO\_7

- PRIO\_8

- PRIO\_9

- PRIO\_10

- PRIO\_11

- PRIO\_12

- PRIO\_13

- PRIO\_14

- PRIO\_15

- PRIO\_16

- type: string

description: >

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

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

ServAuthInfo:

description: Indicates the result of the Policy Authorization service request from the AF.

anyOf:

- type: string

enum:

- TP\_NOT\_KNOWN

- TP\_EXPIRED

- TP\_NOT\_YET\_OCURRED

- ROUT\_REQ\_NOT\_AUTHORIZED

- DIRECT\_NOTIF\_NOT\_POSSIBLE

- type: string

description: >

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

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

SponsoringStatus:

description: Indicates whether sponsored data connectivity is enabled or disabled/not enabled.

anyOf:

- type: string

enum:

- SPONSOR\_DISABLED

- SPONSOR\_ENABLED

- type: string

description: >

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

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

AfEvent:

description: Represents an event to notify to the AF.

anyOf:

- type: string

enum:

- ACCESS\_TYPE\_CHANGE

- ANI\_REPORT

- APP\_DETECTION

- CHARGING\_CORRELATION

- EPS\_FALLBACK

- EXTRA\_UE\_ADDR

- FAILED\_QOS\_UPDATE

- FAILED\_RESOURCES\_ALLOCATION

- OUT\_OF\_CREDIT

- PDU\_SESSION\_STATUS

- PLMN\_CHG

- QOS\_MONITORING

- QOS\_NOTIF

- RAN\_NAS\_CAUSE

- REALLOCATION\_OF\_CREDIT

- SAT\_CATEGORY\_CHG

- SUCCESSFUL\_QOS\_UPDATE

- SUCCESSFUL\_RESOURCES\_ALLOCATION

- TSN\_BRIDGE\_INFO

- UP\_PATH\_CHG\_FAILURE

- USAGE\_REPORT

- UE\_TEMPORARILY\_UNAVAILABLE

- BAT\_OFFSET\_INFO

- URSP\_ENF\_INFO

- PACK\_DEL\_VAR

- L4S\_SUPP

- RT\_DELAY\_TWO\_QOS\_FLOWS

- type: string

description: >

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

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

AfNotifMethod:

description: Represents the notification methods that can be subscribed for an event.

anyOf:

- type: string

enum:

- EVENT\_DETECTION

- ONE\_TIME

- PERIODIC

- type: string

description: >

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

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

QosNotifType:

description: Indicates the notification type for QoS Notification Control.

anyOf:

- type: string

enum:

- GUARANTEED

- NOT\_GUARANTEED

- type: string

description: >

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

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

TerminationCause:

description: >

Indicates the cause behind requesting the deletion of the Individual Application Session

Context resource.

anyOf:

- type: string

enum:

- ALL\_SDF\_DEACTIVATION

- PDU\_SESSION\_TERMINATION

- PS\_TO\_CS\_HO

- INSUFFICIENT\_SERVER\_RESOURCES

- INSUFFICIENT\_QOS\_FLOW\_RESOURCES

- SPONSORED\_DATA\_CONNECTIVITY\_DISALLOWED

- type: string

description: >

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

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

MediaComponentResourcesStatus:

description: Indicates whether the media component is active or inactive.

anyOf:

- type: string

enum:

- ACTIVE

- INACTIVE

- type: string

description: >

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

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

FlowUsage:

description: Describes the flow usage of the flows described by a media subcomponent.

anyOf:

- type: string

enum:

- NO\_INFO

- RTCP

- AF\_SIGNALLING

- type: string

description: >

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

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

FlowStatus:

description: Describes whether the IP flow(s) are enabled or disabled.

anyOf:

- type: string

enum:

- ENABLED-UPLINK

- ENABLED-DOWNLINK

- ENABLED

- DISABLED

- REMOVED

- type: string

description: >

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

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

RequiredAccessInfo:

description: Indicates the access network information required for an AF session.

anyOf:

- type: string

enum:

- USER\_LOCATION

- UE\_TIME\_ZONE

- type: string

description: >

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

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

SipForkingIndication:

description: >

Indicates whether several SIP dialogues are related to an "Individual Application Session

Context" resource.

anyOf:

- type: string

enum:

- SINGLE\_DIALOGUE

- SEVERAL\_DIALOGUES

- type: string

description: >

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

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

AfRequestedData:

description: Represents the information that the AF requested to be exposed.

anyOf:

- type: string

enum:

- UE\_IDENTITY

- type: string

description: >

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

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

ServiceInfoStatus:

description: Represents the preliminary or final service information status.

anyOf:

- type: string

enum:

- FINAL

- PRELIMINARY

- type: string

description: >

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

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

PreemptionControlInformation:

description: Represents Pre-emption control information.

anyOf:

- type: string

enum:

- MOST\_RECENT

- LEAST\_RECENT

- HIGHEST\_BW

- type: string

description: >

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

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

PrioritySharingIndicator:

description: Represents the Priority sharing indicator.

anyOf:

- type: string

enum:

- ENABLED

- DISABLED

- type: string

description: >

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

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

PreemptionControlInformationRm:

description: >

This data type is defined in the same way as the PreemptionControlInformation data type, but

with the OpenAPI nullable property set to true.

anyOf:

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

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

AppDetectionNotifType:

description: Indicates the notification type for Application Detection Control.

anyOf:

- type: string

enum:

- APP\_START

- APP\_STOP

- type: string

description: >

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

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

PduSessionStatus:

description: Indicates whether the PDU session is established or terminated.

anyOf:

- type: string

enum:

- ESTABLISHED

- TERMINATED

- type: string

description: >

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

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

UplinkDownlinkSupport:

description: >

Represents whether an indication or capability is supported for the UL, the DL or both,

UL and DL.

anyOf:

- type: string

enum:

- UL

- DL

- UL\_DL

- type: string

description: >

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

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

L4sNotifType:

description: Indicates the notification type for ECN marking for L4S support in 5GS.

anyOf:

- type: string

enum:

- AVAILABLE

- NOT\_AVAILABLE

- type: string

description: >

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

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

\*\*\* End of Changes \*\*\*