**3GPP TSG CT WG3 Meeting #142 *C3-253577***

**Goteborg, Sweden, 25 – 29 August, 2025 (Revision of C3-253390)**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.122** | **CR** | **0964** | **rev** | **1** | **Current version:** | **19.3.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Update the feature applicability for event subscription | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | XRM\_Ph2 | | | | |  | ***Date:*** | | | 2025-6-23 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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:*** | | The UserPlaneEvent is applicable for features RateLimitReport but was not clarified in the applicability. Similarly, for the UserPlaneEventReport and UserPlaneNotificationData, such applicability is missing in the data table.  In addition, the attribute qosReference is part of NOTE 3 in AsSessionMediaCompnent data type, the applicability is missing as well. In the same table NOTE 2 is for L4S and also applicable for the attribute evSubsc, however, such clarification is missing.  RATE\_LMIT\_INFO\_REPO was incorrectly specified. The correct should be RATE\_LIMIT\_INFO\_REPO | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add the missed feature applicability for the concerned data type.  Correct RATE\_LMIT\_INFO\_REPO to RATE\_LIMIT\_INFO\_REPO. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The applicability of the data type is missing and cause imcomplete specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.14.2.1.1, 5.14.2.1.2, 5.14.2.1.3, 5.14.2.1.13, 5.14.2.1.14 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 has no impact on the OpenAPI file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\*\*\* 1st Change \*\*\*

##### 5.14.2.1.1 Introduction

This clause defines data structures to be used in resource representations, including subscription resources.

Table 5.14.2.1.1-1 specifies data types re-used by the AsSessionWithQoS API from other specifications, including a reference to their respective specifications and when needed, a short description of their use within the AsSessionWithQoS API.

Table 5.14.2.1.1-1: AsSessionWithQoS API re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| AcceptableServiceInfo | 3GPP TS 29.514 [52] | Acceptable service information. |  |
| AlternativeServiceRequirementsData | 3GPP TS 29.514 [52] | Contains alternative QoS related parameters and a reference to them. | AltQosWithIndParams\_5G, MultiMedia |
| AverWindow | 3GPP TS 29.571 [45] | Averaging Window. | EnQoSMon, GMEC |
| AverWindowRm | 3GPP TS 29.571 [45] | This data type is defined in the same way as the "AverWindow" data type, but with the OpenAPI "nullable: true" property. | EnQoSMon, GMEC |
| BatOffsetInfo | 3GPP TS 29.514 [52] | Contains the offset of the BAT and the optionally adjusted periodicity. | EnTSCAC |
| BitRate | 3GPP TS 29.571 [45] | String representing a bit rate that shall be formatted as follows:  Pattern: '^\d+(\.\d+)? (bps|Kbps|Mbps|Gbps|Tbps)$'  Examples:  "125 Mbps", "0.125 Gbps", "125000 Kbps" | EnQoSMon, ListUE\_5G, MultiMedia |
| BitRateRm | 3GPP TS 29.571 [45] | This data type is defined in the same way as the "BitRate" data type, but with the OpenAPI "nullable: true" property. | EnQoSMon, ListUE\_5G, MultiMedia |
| CapabilityReport | 3GPP TS 29.514 [52] | Indicates the capability is supported or not for the corresponding capability type. | QoSMonCapRepo |
| Dnn | 3GPP TS 29.571 [45] | Identifies a DNN. |  |
| DurationMilliSec | 3GPP TS 29.514 [52] | Indicates the time interval in units of milliseconds. | PowerSaving |
| DurationMilliSecRm | 3GPP TS 29.514 [52] | This data type is defined in the same way as the "DurationMilliSec" data type, but with the OpenAPI "nullable: true" property. | PowerSaving |
| EthFlowDescription | 3GPP TS 29.514 [52] | Defines a packet filter for an Ethernet flow.(NOTE 1) | EthAsSessionQoS\_5G, GMEC |
| EventsSubscReqData | 3GPP TS 29.514 [52] | Identifies the events the application subscribes to. | EnQoSMon |
| EventsSubscReqDataRm | 3GPP TS 29.514 [52] | This data type is defined in the same way as the "EventsSubscReqData" data type, but with the OpenAPI "nullable: true" property | EnQoSMon |
| ExtMaxDataBurstVol | 3GPP TS 29.571 [45] | Unsigned integer indicating Maximum Data Burst Volume (see clauses 5.7.3.7 and 5.7.4 of 3GPP TS 23.501 [8]), expressed in Bytes.  Minimum = 4096. Maximum = 2000000. |  |
| ExtMaxDataBurstVolRm | 3GPP TS 29.571 [45] | This data type is defined in the same way as the "ExtMaxDataBurstVol" data type, but with the OpenAPI "nullable: true" property. |  |
| Gpsi | 3GPP TS 29.571 [45] | Represents a GPSI. | GMEC |
| IpAddr | 3GPP TS 29.571 [45] | UE IP Address. | ListUE\_5G |
| MacAddr48 | 3GPP TS 29.571 [45] | MAC Address. | EthAsSessionQoS\_5G, enNB |
| MediaType | 3GPP TS 29.514 [52] | Indicates the media type of a single-modal data flow of a multi-modal service. | MultiMedia |
| MultiModalId | 3GPP TS 29.514 [52] | Represents multi-modal service identifier. | MultiMedia |
| MpxMediaInfo | 3GPP TS 29.514 [52] | Provides Multiplexed Media Information. | MpxMedia |
| NotifCapType | 3GPP TS 29.514 [52] | Indicates which QoS Monitoring capability report is applied. | QoSMonCapRepo |
| OnPathN6SigInfo | 3GPP TS 29.514 [52] | Represents the on-path N6 signaling information, with the OpenAPI "nullable: true" property. | OnPathN6MediaInfo |
| PacketDelBudget | 3GPP TS 29.571 [45] | Unsigned integer indicating Packet Delay Budget (see clauses 5.7.3.4 and 5.7.4 of 3GPP TS 23.501 [8])), expressed in milliseconds.  Minimum = 1. | TSC\_5G, RTLatency |
| PacketDelBudgetRm | 3GPP TS 29.571 [45] | This data type is defined in the same way as the "PacketDelBudget" data type, but with the OpenAPI "nullable: true" property. | TSC\_5G,  RTLatency |
| PacketErrRate | 3GPP TS 29.571 [45] | 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\_5G |
| PacketErrRateRm | 3GPP TS 29.571 [45] | This data type is defined in the same way as the "PacketErrRate" data type, but with the OpenAPI "nullable: true" property. | ExtQoS\_5G |
| PdvMonitoringReport | 3GPP TS 29.514 [52] | Represents a PDV monitoring report. | EnQoSMon |
| PeriodicityInfo | 3GPP TS 29.514 [52] | Indicates the time period between the start of the two data bursts in Uplink and/or Downlink direction. | PowerSaving |
| PduSetQosPara | 3GPP TS 29.571 [45] | Represents the PDU Set level QoS parameters. | PDUSetHandling |
| PduSetQosParaRm | 3GPP TS 29.571 [45] | Represents the PDU Set level QoS parameters to be modified. | PDUSetHandling |
| PlmnIdNid | 3GPP TS 29.571 [45] | 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). | enNB\_5G |
| ProtocolDescription | 3GPP TS 29.571 [45] | Represents Protocol description of the media flow | PDUSetHandling, PowerSaving  TrafficCharChange |
| ProtocolDescriptionRm | 3GPP TS 29.571 [45] | Represents the same as the "ProtocolDescription" data type, but with the OpenAPI "nullable: true" property. | PDUSetHandling, PowerSaving  TrafficCharChange |
| RateLimitRepo | 3GPP TS 29.514 [52] | Indicates the uplink/downlink data rate limitation information for the Non-GBR data flows. | RateLimitReport |
| RatType | 3GPP TS 29.571 [45] | Identifies the RAT Type. | enNB\_5G |
| ReportingFrequency | 3GPP TS 29.512 [8] | Indicates the frequency for the reporting, such as event triggered and/or periodic. (NOTE 2) |  |
| RequestedQosMonitoringParameter | 3GPP TS 29.512 [8] | Indicates the QoS information to be measured, 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. (NOTE 2) |  |
| RttFlowReference | 3GPP TS 29.514 [52] | Identifies which Application Session Media Components contribute to the RT Latency requirement for two service data flows. | RTLatency |
| RttFlowReferenceRm | 3GPP TS 29.514 [52] | This data type is defined in the same way as the "RttFlowReference" data type, but with the OpenAPI "nullable: true" property. | RTLatency |
| ServAuthInfo | 3GPP TS 29.514 [52] | The authorization result of a request for QoS / QoS monitoring. | EnQoSMon |
| Snssai | 3GPP TS 29.571 [45] | Identifies the S-NSSAI. |  |
| SupportedFeatures | 3GPP TS 29.571 [45] | Used to negotiate the applicability of the optional features defined in table 5.14.4-1. |  |
| TemporalInValidity | 3GPP TS 29.565 [72] | Represents the temporal invalidity related information. | GMEC |
| TscaiInputContainer | 3GPP TS 29.514 [52] | TSCAI Input information container. | TSC\_5G, MultiMedia, GMEC |
| TscPriorityLevel | 3GPP TS 29.514 [52] | Represents priority of TSC Flows. | TSC\_5G |
| TscPriorityLevelRm | 3GPP TS 29.514 [52] | Represents the same as the TscPriorityLevel data type, but with the OpenAPI "nullable: true" property. | TSC\_5G |
| Uinteger | 3GPP TS 29.571 [45] | Unsigned Integer, i.e. only value 0 and integers above 0 are permissible.  Minimum = 0. |  |
| UintegerRm | 3GPP TS 29.571 [45] | This data type is defined in the same way as the "Uinteger" data type, but with the OpenAPI "nullable: true" property. |  |
| UplinkDownlinkSupport | 3GPP TS 29.514 [52] | Provides L4S support information. | L4S, GMEC |
| NOTE 1: In order to support a set of MAC addresses with a specific range in the traffic filter, feature MacAddressRange\_5G as specified in clause 5.14.4 shall be supported.  NOTE 2: In order to support QoS Monitoring, feature QoSMonitoring\_5G as specified in clause 5.14.4 shall be supported. | | |  |

Table 5.14.2.1.1-2 specifies the data types defined for the AsSessionWithQoS API.

Table 5.14.2.1.1-2: AsSessionWithQoS API specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Clause defined | Description | Applicability |
| AdditionInfoAsSessionWithQos | 5.14.2.1.11 | Describes additional error information specific for this API. |  |
| AsSessionWithQoSSubscription | 5.14.2.1.2 | Represents an individual AS session with required QoS subscription resource. |  |
| AsSessionWithQoSSubscriptionPatch | 5.14.2.1.3 | Represents parameters to modify an AS session with specific QoS subscription. |  |
| AsSessionMediaComponent | 5.14.2.1.13 | Represents media component data for a multi-modal service. It contains service data flow information for a single modal data flow of a multi-modal service. | MultiMedia |
| AsSessionMediaComponentRm | 5.14.2.1.14 | Represents the same as the AsSessionMediaComponent data type but with the "nullable: true" property. | MultiMedia |
| MultiModalFlows | 5.14.2.1.15 | Represents flow information within a single-modal data flow for a multi-modal service. | MultiMedia |
| ProblemDetailsAsSessionWithQos | 5.14.2.1.12 | ProblemDetails as defined in clause 5.2.12.12 extended with specific error information for this API, as described in AdditionInfoAsSessionWithQos. |  |
| QosMonitoringInformation | 5.14.2.1.6 | Represents QoS monitoring information. | QoSMonitoring\_5G, ListUE\_5G |
| QosMonitoringInformationRm | 5.14.2.1.7 | Represents the same as the QosMonitoringInformation data type but with the "nullable: true" property.  The "nullable: true" property is applicable only if the "EnQoSMon" feature is supported. | QoSMonitoring\_5G, ListUE\_5G |
| QosMonitoringReport | 5.14.2.1.8 | Represents a QoS monitoring report. | QoSMonitoring\_5G, ListUE\_5G |
| TscQosRequirement | 5.14.2.1.9 | Represents QoS requirements for time sensitive communication. | TSC\_5G, GMEC |
| TscQosRequirementRm | 5.14.2.1.10 | Represents the same as the TscQosRequirement data type but with the "nullable: true" property. | TSC\_5G, GMEC |
| UserPlaneEvent | 5.14.2.2.3 | Represents the user plane event. |  |
| UserPlaneEventReport | 5.14.2.1.5 | Represents an event report for user plane. |  |
| UserPlaneNotificationData | 5.14.2.1.4 | Represents the parameters to be conveyed in a user plane event(s) notification. |  |
| UeAddInfo | 5.14.2.1.16 | Represents the UE address information. | ListUE\_5G |

\*\*\* Next Changes \*\*\*

##### 5.14.2.1.2 Type: AsSessionWithQoSSubscription

This type represents an AS session request with specific QoS for the service provided by the SCS/AS to the SCEF via T8 interface. The structure is used for subscription request and response.

Table 5.14.2.1.2-1: Definition of type AsSessionWithQoSSubscription

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | Cardinality | Description | Applicability (NOTE 1) |
| self | Link | 0..1 | Link to the resource "Individual AS Session with Required QoS Subscription".  This parameter shall be supplied by the SCEF in HTTP responses. |  |
| dnn | Dnn | 0..1 | Identifies a DNN, a full DNN with both the Network Identifier and Operator Identifier, or a DNN with the Network Identifier only. (NOTE 3) |  |
| snssai | Snssai | 0..1 | Identifies an S-NSSAI. (NOTE 3) |  |
| supportedFeatures | SupportedFeatures | 0..1 | Used to negotiate the supported optional features of the API as described in clause 5.2.7.  This attribute shall be provided in the POST request and in the response of successful resource creation. |  |
| notificationDestination | Link | 1 | Contains the URL to receive the notification bearer level event(s) from the SCEF. |  |
| exterAppId | string | 0..1 | Identifies the external Application Identifier. (NOTE 2) (NOTE 8) (NOTE 9) (NOTE 11) | AppId  ListUE\_5G  GMEC |
| extGroupId | ExternalGroupId | 0..1 | Identifies a group of UE(s).  (NOTE 10) | GMEC |
| gpsi | Gpsi | 0..1 | Identifies a UE using its GPSI.  (NOTE 10) | GMEC |
| flowInfo | array(FlowInfo) | 0..N | Describe the IP data flow which requires QoS.  (NOTE 2) (NOTE 7) (NOTE 8) (NOTE 9) (NOTE 10) (NOTE 11) (NOTE 17) |  |
| ethFlowInfo | array(EthFlowDescription) | 0..N | Identifies Ethernet packet flows.  (NOTE 2) (NOTE 6) (NOTE 8) (NOTE 10) (NOTE 11) | EthAsSessionQoS\_5G  GMEC |
| enEthFlowInfo | array(EthFlowInfo) | 0..N | Identifies the Ethernet flows which require QoS. Each Ethernet flow consists of a flow identifier and the corresponding UL and/or DL flows.  (NOTE 2) (NOTE 6) (NOTE 8) (NOTE 10) (NOTE 11) | EnEthAsSessionQoS\_5G  GMEC |
| qosReference | string | 0..1 | Identifies a pre-defined QoS information. (NOTE 4) (NOTE 5) |  |
| altQoSReferences | array(string) | 0..N | Identifies an ordered list of pre-defined QoS information. The lower the index of the array for a given entry, the higher the priority.  (NOTE 4) | AlternativeQoS\_5G  GMEC |
| altQosReqs | array(AlternativeServiceRequirementsData) | 0..N | Identifies an 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 4) (NOTE 18) | AltQosWithIndParams\_5G |
| disUeNotif | boolean | 0..1 | Indicates whether 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. The fulfilled situation is either the QoS profile or an Alternative QoS Profile.  - true: the QoS flow parameters signalling to the UE is disabled;  - false (default): the QoS flow parameters signalling to the UE is not disabled. | DisableUENotification\_5G  GMEC |
| ueIpv4Addr | Ipv4Addr | 0..1 | The Ipv4 address of the UE.  (NOTE 2) |  |
| ipDomain | string | 0..1 | The IPv4 address domain identifier.  The attribute may only be provided if the ueIpv4Addr attribute is present. |  |
| ueIpv6Addr | Ipv6Addr | 0..1 | The Ipv6 address of the UE.  (NOTE 2) |  |
| macAddr | MacAddr48 | 0..1 | Identifies the MAC address.  (NOTE 2) | EthAsSessionQoS\_5G |
| listUeAddrs | array(UeAddInfo) | 0..N | Identifies the list of UE address(es).  (NOTE 9) (NOTE 12) | ListUE\_5G |
| usageThreshold | UsageThreshold | 0..1 | Time period and/or traffic volume in which the QoS is to be applied. |  |
| sponsorInfo | SponsorInformation | 0..1 | Indicates a sponsor information |  |
| qosMonInfo | QosMonitoringInformation | 0..1 | Qos Monitoring information for packet delay measurements. It shall be present when the event "QOS\_MONITORING" is subscribed and packet delay measurements are required.  Threshold information may be present only within the "repThreshUl", "repThreshDl" and/or "repThreshRp" attributes of the "QosMonitoringInformation" data type.  (NOTE 13) | QoSMonitoring\_5G |
| directNotifInd | boolean | 0..1 | Indicates whether the direct event notification is requested.  - true: the direct event notification is requested;  - false (default): the direct event notification is not requested.  (NOTE 13, NOTE 14) | ExposureToEAS  GMEC |
| tscQosReq | TscQosRequirement | 0..1 | Contains the QoS requirements for time sensitive communication (supported by time sensitive communication QoS flows as specified in clause 5.27.3 of 3GPP TS 23.501 [8]).  (NOTE 5) | TSC\_5G  GMEC |
| tempInValidity | TemporalInValidity | 0..1 | Indicates the time interval during which the AF request is not to be applied. | GMEC |
| requestTestNotification | boolean | 0..1 | Set to true by the SCS/AS to request the SCEF to send a test notification as defined in clause 5.2.5.3. Set to false or omitted otherwise. | Notification\_test\_event |
| websockNotifConfig | WebsockNotifConfig | 0..1 | Configuration parameters to set up notification delivery over Websocket protocol as defined in clause 5.2.5.4. | Notification\_websocket |
| events | array(UserPlaneEvent) | 0..N | Corresponds to the list of user plane event(s) to which the SCS/AS requests to subscribe. | enNB  GMEC  RateLimitReport |
| multiModalId | MultiModalId | 0..1 | Multi-modal Service Identifier, as defined in 3GPP TS 29.514 [52]. | MultiMedia |
| multiModDatFlows | map(AsSessionMediaComponent) | 0..N | Each element of the map represents Media Component data for a single-modal data flow(s) of a multi-modal service. The key of the map is the attribute "medCompN". (NOTE 8) (NOTE 13) | MultiMedia |
| l4sInd | UplinkDownlinkSupport | 0..1 | Provides L4S support information.  (NOTE 16) | L4S  GMEC |
| pduSetQosDl | PduSetQosPara | 0..1 | Contains the PDU Set QoS Parameter(s) which are used to support PDU Set based QoS handling in the downlink direction. | PDUSetHandling |
| pduSetQosUl | PduSetQosPara | 0..1 | Contains the PDU Set QoS Parameter(s) which are used to support PDU Set based QoS handling in the uplink direction. | PDUSetHandling |
| rTLatencyInd | boolean | 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  GMEC |
| pdb | PacketDelBudget | 0..1 | Indicates an upper bound for the time that a packet may be delayed between the UE and the PSA UPF.  This attribute applies also to an AF request QoS for a UE or group of UE(s) not identified by the UE address(es) defined in clause 4.4.9.3 of 3GPP TS 29.522 [62]. | RTLatency  GMEC |
| protoDescDl | ProtocolDescription | 0..1 | Downlink Protocol description for PDU Set identification, the detection of end of Data burst indication, the detection of the Data Burst size marking indication, TTNB indication, and/or indication of whether MoQ or UDP-option is used to carry media related information. | PDUSetHandling  PowerSaving  TrafficCharChange  OnPathN6MediaInfo |
| protoDescUl | ProtocolDescription | 0..1 | Uplink Protocol description for PDU Set identification in UE. | PDUSetHandling |
| periodUl | DurationMilliSec | 0..1 | Indicates the time period between the start of the two data bursts in units of milliseconds in Uplink direction. | PowerSaving |
| periodDl | DurationMilliSec | 0..1 | Indicates the time period between the start of the two data bursts in units of milliseconds in Downlink direction. | PowerSaving |
| pdvMon | QosMonitoringInformation | 0..1 | Contains the Packet Delay Variation information for the subscribed report. It shall be present when the event "PACK\_DELAY\_VAR" is subscribed.  Threshold information may be present only within the "repThreshUl", "repThreshDl" and/or "repThreshRp" attributes of the "QosMonitoringInformation" data type.  (NOTE 13) | EnQoSMon  GMEC |
| qosDuration | DurationSec | 0..1 | Contains the QoS duration to transfer data traffic transmission (e.g., AI/ML transmission). The minimum value of the QoS duration shall be 60 sec. | QoSTiming\_5G |
| qosInactInt | DurationSec | 0..1 | Contains the QoS inactivity interval for the given data traffic transmission (e.g., AI/ML transmission). The minimum value of the QoS inactivity interval shall be 60 sec. | QoSTiming\_5G |
| qosMonDatRate | QosMonitoringInformation | 0..1 | Contains the data rate measurements information for the subscribed report. It shall be present when the event "QOS\_MONITORING" is subscribed and data rate measurements are required.  Threshold information may be present only within the "repThreshDatRateUl" and/or "repThreshDatRateDl" attributes of the "QosMonitoringInformation" data type.  (NOTE 12) (NOTE 13) | EnQoSMon  ListUE\_5G  GMEC |
| avlBitRateMon | QosMonitoringInformation | 0..1 | Contains the requirements of the available bitrate information monitoring and reporting. It may be present when the event "QOS\_MONITORING" is subscribed.  (NOTE 13) (NOTE 15) | EnQoSMon\_v2 |
| avrgWndw | AverWindow | 0..1 | Averaging window for the calculation of the data rate for the service data flow. It may be present when the "qosMonDatRate" attribute is present.  (NOTE 13) | EnQoSMon  GMEC |
| servAuthInfo | ServAuthInfo | 0..1 | Indicates the authorization result for the QoS monitoring request.  Supplied by the NEF. | EnQoSMon  GMEC |
| qosMonCapRepoTypes | array(NotifCapType) | 0..N | Contains the requested type(s) of QoS Monitoring capability report.  This attribute shall be present if the event "QOS\_MON\_CAP\_REPO" is subscribed. | QoSMonCapRepo |
| qosMonConReq | QosMonitoringInformation | 0..1 | Contains the requirements of the congestion information (ECN marking percentage) monitoring and reporting. It shall be present when the event "QOS\_MONITORING" is subscribed and congestion information measurements are required.  (NOTE 13) (NOTE 15) (NOTE 16)  Threshold information may be present only within the "conThreshUl" and/or "conThreshDl" attributes of the "QosMonitoringInformation" data type. | EnQoSMon  GMEC |
| listUeConsDtRt | array(IpAddr) | 0..N | Identifies the list of UE addresses subject for Consolidated Data Rate monitoring.  (NOTE 12) | ListUE\_5G |
| datBurstSizeInd | boolean | 0..1 | Indicates the Data Burst Size marking for the DL service data flow is supported, when it is included and set to "true". The default value is "false" if omitted. | TrafficCharChange |
| timetoNextBurstInd | boolean | 0..1 | Indicates the Time to Next Burst for the DL service data flow is supported, when it is included and set to "true". The default value is "false" if omitted. | TrafficCharChange |
| onPathN6SigInfo | OnPathN6SigInfo | 0..1 | Contains the on-path N6 signaling information, when it is present, it indicates supporting of setting up On-path N6 connection to deliver media related information. | OnPathN6MediaInfo |
| expTranInd | boolean | 0..1 | Expedited Transfer Indication for the downlink traffic to enable expedited data transfer with reflective QoS for the Non-GBR service data flow.  - "true": the expedited data transfer of larger payload for XR application is enabled for the flow.  - "false": the expedited data transfer of larger payload for XR application is not enabled for the flow.  The default value is "false" if omitted. | TrafficCharChange |
| NOTE 1: Properties marked with a feature as defined in clause 5.14.4 are applicable as described in clause 5.2.7. If no features are indicated, the related property applies for all the features.  NOTE 2: When the "GMEC" feature is not supported, one of "ueIpv4Addr", "ueIpv6Addr" or "macAddr" or "listUeAddrs" shall be included. If ipv4 or ipv6 address is provided, IP flow information shall be provided. If MAC address is provided and the AppId feature is not supported, Ethernet flow information (either "ethFlowInfo", or if the feature EnEthAsSessionQoS\_5G is supported, "enEthFlowInfo") shall be provided. If the AppId feature is supported, one of IP flow information, Ethernet flow information (if EthAsSessionQoS\_5G and/or EnEthAsSessionQoS\_5G is supported) or External Application Identifier shall be provided.  NOTE 3: The property is only applicable for the NEF.  NOTE 4: The attributes "altQoSReferences" and "altQosReqs" are mutually exclusive. The attributes "qosReference" and "altQosReqs" are also mutually exclusive.  NOTE 5: The attributes "reqGbrDl", "reqGbrUl", "reqMbrDl", "reqMbrUl", "maxTscBurstSize", "req5Gsdelay", "reqPer" (if the ExtQoS\_5G and/or "GMEC" feature(s) is/are supported), and "priority" within the "tscQosReq" attribute may be provided only if the "qosReference" attribute is not provided.  NOTE 6: When the Ethernet flow information is provided and, the EthAsSessionQoS\_5G and EnEthAsSessionQoS\_5G features are supported, either the "ethFlowInfo" or the "enEthFlowInfo" shall be provided, but not both simultenously.  NOTE 7: The "tosTC" attribute of the "flowInfo" attribute may only be present if the "ToSTC\_5G" feature is supported.  NOTE 8: The attributes "exterAppId", "flowInfo", "ethFlowInfo", "enEthFlowInfo", "qosReference", "altQoSReferences", "altQosReqs", "tscQosReq", "qosMonInfo" may be provided only if the "multiModDatFlows" attribute is not provided.  NOTE 9: When the "ListUE\_5G" feature is supported, the "listUeAddrs" attribute shall be provided, and either "exterAppId" attribute or "flowInfo" attribute shall be provided.  NOTE 10: When the "GMEC" feature is supported and the target UE(s) are not identified by UE address(es) (i.e., the "ueIpv4Addr", "ueIpv6Addr", "macAddr" or "listUeAddrs" attribute is not applicable to identify the UE(s)), the "extGroupId" attribute and the "gpsi" attributes are mutually exclusive And either one of them shall be provided. If either the "gpsi" attribute or the "extGroupId" attribute are present, then neither the "ueIpv4Addr" attribute, the "ueIpv6Addr" attribute, the "macAddr" attribute nor the "listUeAddrs" attribute shall be included.  NOTE 11: When the "GMEC" feature is supported, either the "exterAppId" attribute, "flowInfo" attribute or Ethernet flow information (either within the "ethFlowInfo" attribute or the "enEthFlowInfo" attribute) shall be provided.  NOTE 12: When the "ListUE\_5G" feature is supported and the "qosMonDatRate" attribute is provided, the "qosMonDatRate" attribute indicates the cosolidated data rate for the list of UEs, the "consDataRateThrDl" and "consDataRateThrUl" attributes contained in "qosMonDatRate" attribute indicate the upper bound of the aggregated DL/UL data rate and by default, are applicable to the list of UEs specified by the "listUeAddrs" attribute. If the "listUeConsDtRt" attribute is also provided, then it has to be the subset of "listUeAddrs" attribute.  NOTE 13: When the "MultiMedia" feature is supported, the "qosMonInfo", "directNotifInd", "pdvMon", "qosMonDatRate", "avrgWndw", "qosMonConReq" and "avlBitRateMon" attributes may be present only when the "multiModDatFlows" attribute is not present.  NOTE 14: When the "ExposureToEAS" feature is supported, the "directNotifInd" attribute indicates whether direct event notification is requested for the packet delay measurements provided in the "qosMonInfo" attribute. When the "EnQoSMon" feature is supported, the "directNotifInd" attribute indicates whether direct event notification is requested for the QoS measurement(s) provided in the "qosMonInfo", "qosMonDatRate" and/or "qosMonConReq" attribute(s).  NOTE 15: Only the "EVENT\_TRIGGERED" reporting frequency in "repFreqs" attribute contained in QosMonitoringInformation data type is applicable.  NOTE 16: When both, the "L4S" and "EnQoSMon" features are supported, the AF request may include either the indication of L4S support within the "l4sInd" attribute or the request for congestion measurements within the "qosMonConReq" attribute, but shall not include both attributes simultaneously.  NOTE 17: When the "ListUE\_5G" feature is supported and the "flowInfo" attribute is present, the flow description information shall be common for the list of UE(es) with the application server side IP address, port number and protocol.  NOTE 18: The "pduSetQosDl", "pduSetQosUl", "averWindow" and "maxDataBurstVol" attributes within the AlternativeServiceRequirementsData data type may be present only when the "ExtQoS\_v2" feature is required. | | | | |

\*\*\* Next Changes \*\*\*

##### 5.14.2.1.3 Type: AsSessionWithQoSSubscriptionPatch

This type represents an AS session request with specific QoS for the service provided by the SCS/AS to the SCEF via T8 interface. The structure is used for PATCH request.

Table 5.14.2.1.3-1: Definition of type AsSessionWithQoSSubscriptionPatch

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | Cardinality | Description | Applicability (NOTE 1) |
| exterAppId | string | 0..1 | Identifies the external Application Identifier. (NOTE 2) (NOTE 8) | AppId  ListUE\_5G  GMEC |
| flowInfo | array(FlowInfo) | 0..N | Describe the data flow which requires QoS.  (NOTE 2) (NOTE 5) (NOTE 6) (NOTE 8) (NOTE 14) |  |
| ethFlowInfo | array(EthFlowDescription) | 0..N | Describes Ethernet packet flows.  (NOTE 2) (NOTE 6) | EthAsSessionQoS\_5G  GMEC |
| enEthFlowInfo | array(EthFlowInfo) | 0..N | Identifies the Ethernet flows which require QoS. Each Ethernet flow consists of a flow identifier and the corresponding UL and/or DL flows.  (NOTE 2) (NOTE 6) | EnEthAsSessionQoS\_5G  GMEC |
| listUeAddrs | array(UeAddInfo) | 0..N | Identifies the list of UE address(es).  (NOTE 8) (NOTE 9) | ListUE\_5G |
| qosReference | string | 0..1 | Pre-defined QoS reference. (NOTE 3) (NOTE 4) |  |
| altQoSReferences | array(string) | 0..N | Identifiers an ordered list of pre-defined QoS information. The lower the index of the array for a given entry, the higher the priority. (NOTE 3) | AlternativeQoS\_5G  GMEC |
| altQosReqs | array(AlternativeServiceRequirementsData) | 0..N | Identifies an 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 3) (NOTE 15) | AltQosWithIndParams\_5G |
| disUeNotif | boolean | 0..1 | Indicates whether 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. The fulfilled situation is either the QoS profile or an Alternative QoS Profile.  - true: the QoS flow parameters signalling to the UE is disabled;  - false: the QoS flow parameters signalling to the UE is not disabled. | DisableUENotification\_5G  GMEC |
| usageThreshold | UsageThresholdRm | 0..1 | Time period and/or traffic volume in which the QoS is to be applied. |  |
| qosMonInfo | QosMonitoringInformationRm | 0..1 | Qos Monitoring information for packet delay measurements. It may be present when the event "QOS\_MONITORING" is subscribed.  Threshold information may be present only within the "repThreshUl", "repThreshDl" and/or "repThreshRp" attributes of the "QosMonitoringInformationRm" data type.  (NOTE 10) | QoSMonitoring\_5G  GMEC |
| directNotifInd | boolean | 0..1 | Indicates whether the direct event notification is requested.  - true: the direct event notification is requested;  - false: the direct event notification is not requested.  (NOTE 10, NOTE 11) | ExposureToEAS  GMEC |
| tscQosReq | TscQosRequirementRm | 0..1 | Contains the QoS requirements for time sensitive communication. (NOTE 4) | TSC\_5G  MultiMedia  GMEC |
| tempInValidity | TemporalInValidity | 0..1 | Indicates the time interval during which the AF request is not to be applied. | GMEC |
| notificationDestination | Link | 0..1 | Contains the URL to receive the notification event(s) from the SCEF. |  |
| events | array(UserPlaneEvent) | 0..N | Corresponds to the list of user plane event(s) to which the SCS/AS requests to subscribe. | enNB  GMEC  RateLimitReport |
| multiModDatFlows | map(AsSessionMediaComponentRm) | 0..N | Each element of the map represents Media Component data for a single-modal data flow(s) of a multi-modal service. The key of the map is the attribute "medCompN". (NOTE 6, NOTE 10) | MultiMedia |
| l4sInd | UplinkDownlinkSupport | 0..1 | Provides L4S support information.  (NOTE 13) | L4S  GMEC |
| pduSetQosDl | PduSetQosParaRm | 0..1 | Contains the PDU Set QoS Parameter(s) which are used to support PDU Set based QoS handling in the downlink direction. | PDUSetHandling |
| pduSetQosUl | PduSetQosParaRm | 0..1 | Contains the PDU Set QoS Parameter(s) which are used to support PDU Set based QoS handling in the uplink direction. | PDUSetHandling |
| rTLatencyInd | boolean | 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". | RTLatency  GMEC |
| pdb | PacketDelBudgetRm | 0..1 | Indicates an upper bound for the time that a packet may be delayed between the UE and the PSA UPF.  This attribute applies also to an AF request QoS for a UE or group of UE(s) not identified by the UE address(es) defined in clause 4.4.9.3 of 3GPP TS 29.522 [62]. | RTLatency  GMEC |
| protoDescDl | ProtocolDescriptionRm | 0..1 | Downlink Protocol description for PDU Set identification, the detection of end of Data burst indication, the detection of the Data Burst Size marking indication, TTNB indication, indication of whether MoQ or UDP-option is used to carry media related information. | PDUSetHandling  PowerSaving  TrafficCharChange  OnPathN6MediaInfo |
| protoDescUl | ProtocolDescriptionRm | 0..1 | Uplink Protocol description for PDU Set identification in UE | PDUSetHandling |
| periodUl | DurationMilliSecRm | 0..1 | Indicates the time period between the start of the two data bursts in units of milliseconds in Uplink direction. | PowerSaving |
| periodDl | DurationMilliSecRm | 0..1 | Indicates the time period between the start of the two data bursts in units of milliseconds in Downlink direction. | PowerSaving |
| pdvMon | QosMonitoringInformationRm | 0..1 | Packet Delay Variation information for the subscribed report. It may be present when the event "PACK\_DELAY\_VAR" is subscribed.  Threshold information may be present only within the "repThreshUl", "repThreshDl" and/or "repThreshRp" attributes of the "QosMonitoringInformationRm" data type.  (NOTE 10) | EnQoSMon  GMEC |
| qosDuration | DurationSecRm | 0..1 | Contains the QoS duration to transfer data transmission (e.g., AI/ML transmission). The minimum value of the QoS duration shall be 60 sec.. | QoSTiming\_5G |
| qosInactInt | DurationSecRm | 0..1 | Contains the QoS inactivity interval for the given data transfer transmission (e.g., AI/ML transmission). The minimum value of the QoS inactivity interval shall be 60 sec. | QoSTiming\_5G |
| qosMonDatRate | QosMonitoringInformationRm | 0..1 | Contains the data rate measurements information for the subscribed report. It may be present when the event "QOS\_MONITORING" is subscribed and data rate measurements apply.  Threshold information may be present only within the "repThreshDatRateUl" and/or "repThreshDatRateDl" attributes of the "QosMonitoringInformationRm" data type.  (NOTE 9, NOTE 10) | EnQoSMon  ListUE\_5G  GMEC |
| avrgWndw | AverWindowRm | 0..1 | Averaging window for the calculation of the data rate for the service data flow.  (NOTE 10) | EnQoSMon  GMEC |
| qosMonCapRepoTypes | array(NotifCapType) | 0..N | Contains the requested type(s) of QoS Monitoring capability report.  This attribute may be present if the event "QOS\_MON\_CAP\_REPO" is subscribed. | QoSMonCapRepo |
| qosMonConReq | QosMonitoringInformationRm | 0..1 | Contains the requirements of the congestion information (ECN marking percentage) monitoring and reporting. It may be present when the event "QOS\_MONITORING" is subscribed and congestion information measurements apply.  Threshold information may be present only within the "conThreshUl" and/or "conThreshDl" attributes of the "QosMonitoringInformationRm" data type.  (NOTE 10) (NOTE 12) (NOTE 13) | EnQoSMon  GMEC |
| avlBitRateMon | QosMonitoringInformationRm | 0..1 | Contains the requirements of the available bitrate information monitoring and reporting. It may be present when the event "QOS\_MONITORING" is subscribed.  (NOTE 10) (NOTE 12) | EnQoSMon\_v2 |
| listUeConsDtRt | array(IpAddr) | 0..N | Identifies the list of UE addresses subject for Consolidated Data Rate monitoring.  (NOTE 9) | ListUE\_5G |
| datBurstSizeInd | boolean | 0..1 | Indicates the Data Burst Size marking for the DL service data flow is supported, when it is included and set to "true". | TrafficCharChange |
| timetoNextBurstInd | boolean | 0..1 | Indicates the Time to Next Burst for the DL service data flow is supported, when it is included and set to "true". | TrafficCharChange |
| onPathN6SigInfo | OnPathN6SigInfo | 0..1 | Contains the on-path N6 signaling information, when it is present, it indicates supporting setting up On-path N6 connection to deliver media related information. | OnPathN6MediaInfo |
| expTranInd | boolean | 0..1 | Expedited Transfer Indication for the downlink traffic to enable expedited data transfer with reflective QoS for the Non-GBR service data flow.  - "true": the expedited data transfer of larger payload for XR application is enabled for the flow.  - "false": the expedited data transfer of larger payload for XR application is not enabled for the flow. | TrafficCharChange |
| NOTE 1: Properties marked with a feature as defined in clause 5.14.4 are applicable as described in clause 5.2.7. If no features are indicated, the related property applies for all the features.  NOTE 2: One of "exterAppId", "flowInfo" or either "ethFlowInfo" or "enEthFlowInfo" may be provided.  NOTE 3 The attributes "altQoSReferences" and "altQosReqs" are mutually exclusive. The attributes "qosReference" and "altQosReqs" are also mutually exclusive.  NOTE 4: The attributes "reqGbrDl", "reqGbrUl", "reqMbrDl", "reqMbrUl", "maxTscBurstSize", "req5Gsdelay", "reqPer" (if the ExtQoS\_5G and/or "GMEC" feature(s) is supported), and "priority" within the "tscQosReq" attribute may be provided only if the "qosReference" attribute is not provided.  NOTE 5: The "tosTC" attribute of the "flowInfo" attribute may only be present if the "ToSTC\_5G" feature is supported.  NOTE 6: The attributes "exterAppId", "flowInfo", "ethFlowInfo", "enEthFlowInfo", "qosReference", "altQoSReferences", "altQosReqs", "tscQosReq", "qosMonInfo" may be provided only if the "multiModDatFlows" attribute is not provided.  NOTE 8: When the "ListUE\_5G" feature is supported, the "listUeAddrs" attribute may be provided, and/or either "exterAppId" attribute or "flowInfo" attribute may be provided.  NOTE 9: When the "ListUE\_5G" feature is supported and the "qosMonDatRate" attribute is provided, the "qosMonDatRate" attribute indicates the cosolidated data rate for the list of UEs, the "consDataRateThrDl" and "consDataRateThrUl" attributes contained in "qosMonDatRate" attribute indicate the upper bound of the aggregated DL/UL data rate and by default, are applicable to the list of UEs specified by the "listUeAddrs" attribute. If the "listUeConsDtRt" attribute is also provided, then it has to be the subset of "listUeAddrs" attribute.  NOTE 10: When the "MultiMedia" feature is supported, the "qosMonInfo", "directNotifInd", "pdvMon", "qosMonDatRate", "avrgWndw", "qosMonConReq" and "avlBitRateMon" attributes may be present only when the "multiModDatFlows" attribute is not present.  NOTE 11: When the "ExposureToEAS" feature is supported, the "directNotifInd" attribute indicates whether direct event notification is requested for the packet delay measurements provided in the "qosMonInfo" attribute. When the "EnQoSMon" feature is supported, the "directNotifInd" attribute indicates whether direct event notification is requested for the QoS measurement(s) indicated in the provided and/or previously provided "qosMonInfo", "qosMonDatRate" and "qosMonConReq" attribute(s).  NOTE 12: Only the "EVENT\_TRIGGERED" reporting frequency in "repFreqs" attribute contained in QosMonitoringInformationRm data type is applicable.  NOTE 13: When both, the "L4S" and "EnQoSMon" features are supported, the AF request may include either the indication of L4S support within the "l4sInd" attribute or the request for congestion measurements within the "qosMonConReq" attribute but shall not include both attributes simultaneously. As result of the PATCH operation, the Individual AS Session with Required QoS Subscription resource shall not contain simultaneously both, the indication of L4S support and the subscription to congestion monitoring.  NOTE 14: When the "ListUE\_5G" feature is supported and the "flowInfo" attribute is present, the flow description information shall be common for the list of UE(es) with the application server side IP address, port number and protocol.  NOTE 15: The "pduSetQosDl", "pduSetQosUl", "averWindow" and "maxDataBurstVol" attributes within the AlternativeServiceRequirementsData data type may be present only when the "ExtQoS\_v2" feature is required. | | | | |

\*\*\* Next Changes \*\*\*

##### 5.14.2.1.13 Type AsSessionMediaComponent

This type represents media component data for a single-modal data flow of a multi-modal service. It shall comply with the provisions defined in table 5.14.2.1.13-1.

Table 5.14.2.1.13-1: Definition of type AsSessionMediaComponent

| Attribute name | Data type | Cardinality | Description | Applicability |
| --- | --- | --- | --- | --- |
| flowInfos | array(FlowInfo) | 0..N | Contains the IP data flow(s) description for a single-modal data flow. |  |
| qosReference | string | 0..1 | Identifies a pre-defined QoS information. |  |
| altSerReqs | array(string) | 0..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 3) |  |
| altSerReqsData | array(AlternativeServiceRequirementsData) | 0..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 3) (NOTE 5) |  |
| disUeNotif | boolean | 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. |  |
| medCompN | integer | 1 | Identifies the media component number, and it contains the ordinal number of the media component. |  |
| medType | MediaType | 0..1 | Indicates the media type of the service. |  |
| marBwUl | BitRate | 0..1 | Maximum requested bandwidth for the Uplink. |  |
| marBwDl | BitRate | 0..1 | Maximum requested bandwidth for the Downlink. |  |
| mirBwUl | BitRate | 0..1 | Minimum requested bandwidth for the Uplink. |  |
| mirBwDl | BitRate | 0..1 | Minimum requested bandwidth for the Downlink. |  |
| rTLatencyInd | boolean | 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.  (NOTE 4) | RTLatency |
| pdb | PacketDelBudget | 0..1 | Indicates an upper bound for the time that a packet may be delayed between the UE and the PSA UPF. | RTLatency |
| rTLatencyIndCorreId | RttFlowReference | 0..1 | Identifies which Media Components contribute to the RT Latency requirement for two service data flows.  (NOTE 4) | RTLatency |
| pduSetQosDl | PduSetQosPara | 0..1 | Contains the PDU Set QoS parameter(s) which are used to support PDU Set based QoS handling in the downlink. | PDUSetHandling |
| pduSetQosUl | PduSetQosPara | 0..1 | Contains the PDU Set QoS Parameter(s) which are used to support PDU Set based QoS handling in the uplink. | PDUSetHandling |
| l4sInd | UplinkDownlinkSupport | 0..1 | Provides L4S support information.  (NOTE 2) | L4S |
| protoDescUl | ProtocolDescription | 0..1 | Uplink Protocol description for PDU Set identification in UE. | PDUSetHandling |
| protoDescDl | ProtocolDescription | 0..1 | Downlink Protocol description for PDU Set identification, the detection of end of Data burst indication, the detection of the Data Burst Size marking indication, TTNB indication indication of whether MoQ or UDP-option is used to carry media related information. | PDUSetHandling  PowerSaving  TrafficCharChange  OnPathN6MediaInfo |
| periodUl | DurationMilliSec | 0..1 | Indicates the time period between the start of the two data bursts in units of milliseconds in Uplink direction. | PowerSaving |
| periodDl | DurationMilliSec | 0..1 | Indicates the time period between the start of the two data bursts in units of milliseconds in Downlink direction. | PowerSaving |
| evSubsc | EventsSubscReqData | 0..1 | Identifies the events the application subscribes to at creation of a media component. (NOTE 1) (NOTE 2) (NOTE 6) | EnQoSMon  L4S  RateLimitReport |
| datBurstSizeInd | boolean | 0..1 | Indicates the Data Burst Size marking for the DL service data flow is supported, when it is included and set to "true". The default value is "false" if omitted. | TrafficCharChange |
| timetoNextBurstInd | boolean | 0..1 | Indicates the Time to Next Burst for the DL service data flow is supported, when it is included and set to "true". The default value is "false" if omitted. | TrafficCharChange |
| onPathN6SigInfo | OnPathN6SigInfo | 0..1 | Contains the on-path N6 signaling information, when it is present, it indicates supporting setting up On-path N6 connection to deliver media related information. | OnPathN6MediaInfo |
| expTranInd | boolean | 0..1 | Expedited Transfer Indication for the downlink traffic to enable expedited data transfer with reflective QoS for the Non-GBR service data flow.  - "true": the expedited data transfer of larger payload for XR application is enabled for the flow.  - "false": the expedited data transfer of larger payload for XR application is not enabled for the flow.  The default value is "false" if omitted. | TrafficCharChange |
| NOTE 1: If attribute "evSubsc" is present, one or more of the following IEs within EventsSubscReqData data type may be included: "events", "notifUri", "reqQosMonParams", "qosMon", "qosMonDatRate", "pdvReqMonParams", "pdvMon", "congestMon", "notifCorreId", "rttMon", "directNotifInd", "avrgWndw". In addition, when the attribute "events" is present, only the following AfEvent enumeration may be included: "QOS\_MONITORING", "PACK\_DEL\_VAR", "RT\_DELAY\_TWO\_QOS\_FLOWS", "L4S\_SUPP", "QOS\_MON\_CAP\_REPO", "RATE\_LIMIT\_INFO\_REPO".  NOTE 2: Within an AsSessionMediaComponent entry, the AF may include either the indication of L4S support within the "l4sInd" attribute or the request for congestion measurements within the "evSubsc" attribute as specified in 3GPP TS 29.514 [52]. The indication of the support of ECN marking for L4S and the request of congestion measurements are mutually exclusive and shall not be present simultaneously.  NOTE 3: 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 4: The "rTLatencyInd" attribute and the "rTLatencyIndCorreId" attribute are mutually exclusive.  NOTE 5: The "pduSetQosDl" and "pduSetQosUl" attributes within the AlternativeServiceRequirementsData data type may be present only when the "EnPDUSetHandling" feature is supported.  NOTE 6: The events mapping relationship between the subscription and the notification messages is same for all the events except as follows:  - the "L4S\_SUPP" in the subscription corresponds to the "L4S\_AVAILABLE" and "L4S\_NOT\_AVAILABLE" events in the notification.  - the "PACK\_DEL\_VAR" in the subscription corresponds to the "PACK\_DELAY\_VAR" in the notification. | | | | |

If the "EnQoSMon" feature is supported, and the AF includes the attribute "evSubsc" in the "AsSessionMediaComponent" data type with a subscription to a specific event, then the "events" attribute within the "AsSessionWithQoSSubscription" data type shall not include a subscription to notifications for that specific event. In this case, the NEF shall use the value of the "notifUri" attribute included within the "evSubsc" attribute in the "AsSessionMediaComponent" data type as target URI of the HTTP POST request for that specific event notification.

NOTE: The AF can provide different values per AS session media component for the "notifUri" attribute and/or "notifCorreId" attribute, e.g. to identify the media component of a received report.

If the "EnQoSMon" feature is supported, and the AF requires the subscription to Round Trip Delay over two QoS flows, then the NF service consumer shall use:

- if the UL and DL flows request the same QoS and the same subscription events, an entry of the "AsSessionMediaComponent" data type and shall include the "evSubsc" attribute with the subscription to Round-Trip delay measurements over two SDFs as described in 3GPP TS 29.514 [52];

- otherwise, an entry of the AsSessionMediaComponent data type for the service data flows that require the measurement of the delay in the UL direction and another entry of the AsSessionMediaComponent for the service data flows that require the measurement of the delay in the DL direction. Each AsSessionMediaComponent entry shall include the "evSubsc" attribute with the subscription to Round-Trip delay measurements over two SDFs and may include the "rttFlowRef" attribute with the shared key for the UL and DL monitored flows and, if needed, an indication of whether the monitored flow direction is the UL or the DL as described in 3GPP TS 29.514 [52].

\*\*\* Next Changes \*\*\*

##### 5.14.2.1.14 Type AsSessionMediaComponentRm

This type represents the AsSessionMediaComponent with the "nullable: true" property. The individual properties of the AsSessionMediaComponentRm data type are also removable. It shall comply with the provisions defined in table 5.14.2.1.14-1.

Table 5.14.2.1.14-1: Definition of type AsSessionMediaComponentRm

| Attribute name | Data type | Cardinality | Description | Applicability |
| --- | --- | --- | --- | --- |
| flowInfos | array(FlowInfo) | 0..N | Contains the IP data flow(s) description for a single-modal data flow. |  |
| qosReference | string | 0..1 | Identifies a pre-defined QoS information. |  |
| altSerReqs | array(string) | 0..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 3) |  |
| altSerReqsData | array(AlternativeServiceRequirementsData) | 0..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 3) (NOTE 4) |  |
| disUeNotif | boolean | 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. |  |
| medCompN | integer | 1 | Identifies the media component number, and it contains the ordinal number of the media component. |  |
| medType | MediaType | 0..1 | Indicates the media type of the service. |  |
| marBwUl | BitRateRm | 0..1 | Maximum requested bandwidth for the Uplink. |  |
| marBwDl | BitRateRm | 0..1 | Maximum requested bandwidth for the Downlink. |  |
| mirBwUl | BitRateRm | 0..1 | Minimum requested bandwidth for the Uplink. |  |
| mirBwDl | BitRateRm | 0..1 | Minimum requested bandwidth for the Downlink. |  |
| rTLatencyInd | boolean | 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". | RTLatency |
| pdb | PacketDelBudgetRm | 0..1 | Indicates an upper bound for the time that a packet may be delayed between the UE and the PSA UPF. | RTLatency |
| rTLatencyIndCorreId | RttFlowReferenceRm | 0..1 | Identifies which Media Components contribute to the RT Latency requirement for two service data flows. | RTLatency |
| pduSetQosDl | PduSetQosParaRm | 0..1 | Contains the PDU Set QoS parameter(s) which are used to support PDU Set based QoS handling in the downlink. | PDUSetHandling |
| pduSetQosUl | PduSetQosParaRm | 0..1 | Contains the PDU Set QoS Parameter(s) which are used to support PDU Set based QoS handling in the uplink. | PDUSetHandling |
| l4sInd | UplinkDownlinkSupport | 0..1 | Provides L4S support information.  (NOTE 2) | L4S |
| protoDescUl | ProtocolDescriptionRm | 0..1 | Uplink Protocol description for PDU Set identification in UE. | PDUSetHandling |
| protoDescDl | ProtocolDescriptionRm | 0..1 | Downlink Protocol description for PDU Set identification, and detection of end of Data burst indication, the detection of the Data Burst Size marking indication, TTNB indication indication of whether MoQ or UDP-option is used to carry media related information. | PDUSetHandling  PowerSaving  TrafficCharChange  OnPathN6MediaInfo |
| periodUl | DurationMilliSecRm | 0..1 | Indicates the time period between the start of the two data bursts in units of milliseconds in Uplink direction. | PowerSaving |
| periodDl | DurationMilliSecRm | 0..1 | Indicates the time period between the start of the two data bursts in units of milliseconds in Downlink direction. | PowerSaving |
| evSubsc | EventsSubscReqDataRm | 0..1 | Identifies the events the application subscribes to at creation of a media component. (NOTE 1) (NOTE 2) (NOTE 5) | EnQoSMon, L4S, RateLimitReport |
| datBurstSizeInd | boolean | 0..1 | Indicates the Data Burst Size marking for the DL service data flow is supported, when it is included and set to "true". | TrafficCharChange |
| timetoNextBurstInd | boolean | 0..1 | Indicates the Time to Next Burst for the DL service data flow is supported, when it is included and set to "true". | TrafficCharChange |
| onPathN6SigInfo | OnPathN6SigInfo | 0..1 | Contains the on-path N6 signaling information, when it is present, it indicates supporting setting up On-path N6 connection to deliver media related information. | OnPathN6MediaInfo |
| expTranInd | boolean | 0..1 | Expedited Transfer Indication for the downlink traffic to enable expedited data transfer with reflective QoS for the Non-GBR service data flow.  - "true": the expedited data transfer of larger payload for XR application is enabled for the flow.  - "false": the expedited data transfer of larger payload for XR application is not enabled for the flow. | TrafficCharChange |
| NOTE 1: If attribute "evSubsc" is present, one or more of the following IEs within EventsSubscReqDataRm data type may be included: "events", "notifUri", "reqQosMonParams", "qosMon", "qosMonDatRate", "pdvReqMonParams", "pdvMon", "congestMon", "notifCorreId", "rttMon", "directNotifInd", "avrgWndw". In addition, when the attribute "events" is present, only the following AfEvent enumeration may be included: "QOS\_MONITORING", "PACK\_DEL\_VAR", "RT\_DELAY\_TWO\_QOS\_FLOWS", "L4S\_SUPP", "QOS\_MON\_CAP\_REPO", "RATE\_LIMIT\_INFO\_REPO".  NOTE 2: Within an AsSessionMediaComponentRm entry, the AF may include either the indication of L4S support within the "l4sInd" attribute or the request for congestion measurements within the "evSubsc" attribute as specified in 3GPP TS 29.514 [52]. An AsSessionMediaComponent entry within the Individual AS Session with Required QoS Subscription resource shall not contain simultaneously both, the indication of L4S support and the subscription to congestion monitoring.  NOTE 3: The attributes "altSerReqs" and "altSerReqsData" are mutually exclusive. Of the two, only the attribute "altSerReqs" may be provided if the attribute "qosReference" is provided or has been provided before, while only the attribute "altSerReqsData" may be provided if the attribute "qosReference" is not provided or hasn’t been provided before.  NOTE 4: The "pduSetQosDl" and "pduSetQosUl" attributes within the AlternativeServiceRequirementsData data type may be present only when the "EnPDUSetHandling" feature is supported.  NOTE 5: The events mapping relationship between the subscription and the notification messages is same for all the events except as follows:  - the "L4S\_SUPP" in the subscription corresponds to the "L4S\_AVAILABLE" and "L4S\_NOT\_AVAILABLE" events in the notification.  - the "PACK\_DEL\_VAR" in the subscription corresponds to the "PACK\_DELAY\_VAR" in the notification. | | | | |

If the "EnQoSMon" feature is supported, and the AF includes the attribute "evSubsc" in the "AsSessionMediaComponentRm" data type with a subscription to a specific event, then the "events" attribute within the Individual AS Session with Required QoS Subscription resource shall not include a subscription to notifications for that specific event. In this case, the NEF shall use the value of the "notifUri" attribute included within the "evSubsc" attribute in the "AsSessionMediaComponentRm" data type as target URI of the HTTP POST request for that specific event notification.

NOTE: The AF can provide different values per AS session media component for the "notifUri" attribute and/or "notifCorreId" attribute, e.g. to identify the media component of a received report.

If the "EnQoSMon" feature is supported, and the AF requires the subscription to Round Trip Delay over two QoS flows, then the NF service consumer shall behave as specified in clause 5.14.2.1.3.

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