**3GPP TSG CT WG3 Meeting #136 *C3-244165***

**Maastricht, NL, 19 - 23 August, 2024**

|  |
| --- |
| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** | **0303** | **rev** | **-** | **Current version:** |  |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
|  |

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

|  |
| --- |
|  |
| ***Title:***  | Monitoring profiles in the SS\_NetworkResourceMonitoring API |
|  |  |
| ***Source to WG:*** |  |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | TEI19, SEAL\_Ph3 |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** |  |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)Rel-20 (Release 20)* |
|  |  |
| ***Reason for change:*** | 3GPP TS 23.434 specifies the monitoring profiles in SS\_NetworkResourceMonitoring API within the procedures defined in clauses 14.3.3.4.1 and 14.3.3.4.2 with the related information flows defined in clauses 14.3.2.20, 14.3.2.21 and 14.3.2.22. The SA6 defined this functionality under TEI19 WI.Thus, the related monitoring profile functionality shall be specified in 3GPP TS 29.549. |
|  |  |
| ***Summary of change:*** | This CR introduces the monitoring profiles functionality in the SS\_NetworkResourceMonitoring API. |
|  |  |
| ***Consequences if not approved:*** | The misalignment with stage 2 requirements. |
|  |  |
| ***Clauses affected:*** | 7.4.2.4.2.2, 7.4.2.4.2.7, 7.4.2.4.3.0 (new), 7.4.2.4.3.5 (new), A.10 |
|  |  |
|  | **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 proposes a backward compatible feature for the SS\_NetworkResourceMonitoring API
 |
| ***()*** |  |
| ***This CR's revision history:*** |  |

**Additional discussion(if needed):**

**Proposed changes:**

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

###### 7.4.2.4.2.2 Type: MonitoringReport

Table 7.4.2.4.2.2-1: Definition of type MonitoringReport

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| valUeIds | array(ValTargetUe) | C | 1..N | List of VAL UEs whose measurement data is provided (NOTE). |  |
| valGroupId | string | C | 0..1 | The group ID used for the VAL group for which measurement data is provided (NOTE). |  |
| valStreamIds | array(string) | C | 1..N | List of VAL stream IDs whose measurement data (NOTE). |  |
| measData | MeasurementData | M | 1 | The aggregated measurement data. |  |
| timestamp | DateTime | M | 1 | The timestamp of the measurement. |  |
| failureRep | array(FailureReport) | C | 1..N | The failure report from the NRM server indicating the VAL UE(s) or VAL Stream ID(s) whose measurement data is not obtained successfully and is not provided in the monitoring report.This attribute shall be provided by the NRM server when the requested measurement data is not obtained successfully for all the requested VAL UE(s) or VAL Stream ID(s). |  |
| monProfId | string | O | 0..1 | Contains the monitoring profile identifier that triggered the notification. | SEAL\_Ext |
| NOTE: Only one of these attributes shall be provided. |

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

###### 7.4.2.4.2.7 Type: MonitoringSubscription

Table 7.4.2.4.2.7-1: Definition of type MonitoringSubscription

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description | Applicability |
| valUeIds | array(ValTargetUe) | C | 1..N | List of VAL UEs which measurement data reporting is requested (NOTE 1). |  |
| valGroupId | string | C | 0..1 | The group ID used for the VAL group for which measurement data reporting is requested (NOTE 1). |  |
| valStreamIds | array(string) | C | 1..N | List of VAL streams for which measurement data reporting is requested (NOTE 1) |  |
| valServId | string | O | 0..1 | Contains the VAL service identifier. | SEAL\_Ext |
| monProfId | string | O | 0..1 | Contains the monitoring profile identifier. (NOTE 4) | SEAL\_Ext |
| measReqs | MeasurementRequirements | O | 0..1 | It indicates the measurement requirements (NOTE 2, NOTE 4). |  |
| reportReqs | ReportingRequirements | O | 0..1 | It indicates the requested reporting requirements of (NOTE 3, NOTE 4, NOTE 5). |  |
| notifUri | Uri | C | 0..1 | It indicates the URI where the notification should be delivered to. The notifUri attribute shall be presented for subscription without immediate report. |  |
| monRep | MonitoringReport | C | 0..1 | Contains the unicast QoS monitoring data reporting.The NRM server shall provide this attribute when immediate reporting is requested and the requested data is available. |  |
| reqTestNotif | boolean | O | 0..1 | Set to true to request the VAL server to send a test notification as defined in clause 6.6. Set to false or omitted otherwise. | Notification\_test\_event |
| wsNotifCfg | WebsockNotifConfig | O | 0..1 | Configuration parameters to set up notification delivery over Websocket protocol as defined in clause 6.6. | Notification\_websocket |
| suppFeat | SupportedFeatures | C | 0..1 | This parameter shall be supplied by VAL server in the POST request that request the creation of an individual measurement resource and shall be supplied in the reply of corresponding request. |  |
| NOTE 1: Only one of these attributes shall be provided.NOTE 2: If absent and the "SEAL\_Ext" feature is not supported, the default values shall be used.NOTE 3: If absent and the "SEAL\_Ext" feature is not supported, the default event triggered reporting is used.NOTE 4: When the "SEAL\_Ext" feature is supported, then if the "monProfId" attribute is present in resource creation requests, both the "measReqs" and "reportReqs" attributes shall not be present neither in resource creation requests nor in the corresponding responses.NOTE 5: If the "SEAL\_Ext" feature is supported and "measReqs" and "reportReqs" attributes are not provided in the HTTP POST request, the HTTP POST response shall include this attribute to indicate the subscription termination conditions. |

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

###### 7.4.2.4.3.0 Introduction

This clause defines simple data types and enumerations that can be referenced from data structures defined in the previous clauses.

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

###### 7.4.2.4.3.5 Simple data types

The simple data types defined in table 7.4.2.4.3.5-1 shall be supported.

Table 7.4.2.4.3.5-1: Simple data types

|  |  |
| --- | --- |
| Type name | Description |
| MonProfileId | Represents the monitoring profile identifier encoded as a string. |

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

# A.10 SS\_NetworkResourceMonitoring API

openapi: 3.0.0

info:

 title: SS\_NetworkResourceMonitoring

 description: |

 API for SEAL Network Resource Monitoring.

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 version: "1.1.0"

externalDocs:

 description: >

 3GPP TS 29.549 V18.6.0 Service Enabler Architecture Layer for Verticals (SEAL);

 Application Programming Interface (API) specification; Stage 3.

 url: https://www.3gpp.org/ftp/Specs/archive/29\_series/29.549/

security:

 - {}

 - oAuth2ClientCredentials: []

servers:

 - url: '{apiRoot}/ss-nrm/v1'

 variables:

 apiRoot:

 default: https://example.com

 description: apiRoot as defined in clause 6.5 of 3GPP TS 29.549

paths:

 /subscriptions:

 post:

 summary: Create individual unicast monitoring subscription resource or obtain unicast QoS monitoring data for VAL UEs, VAL Group, or VAL Streams.

 operationId: SubscribeUnicastMonitoring

 tags:

 - Unicast Monitoring Subscriptions (Collection)

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '201':

 description: >

 The requested individual monitoring subscription resource is successfully created

 and a representation of the created resource is returned in the response body.

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: Contains the URI of the newly created individual monitoring resource.

 required: true

 schema:

 type: string

 '200':

 description: The requested unicast QoS monitoring data is returned.

 content:

 application/json:

 schema:

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

 '400':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29122\_CommonData.yaml#/components/responses/default'

 callbacks:

 NotifyUnicastMonitoringData:

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

 post:

 summary: Notify on updates of the individual monitoring resorce accoring the requested reporting settings.

 requestBody:

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '204':

 description: The notification is successfully received.

 '307':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29122\_CommonData.yaml#/components/responses/default'

 /subscriptions/{subscriptionId}:

 delete:

 summary: Remove an existing individual unicast monitoring subscription resource according to the subscriptionId.

 operationId: UnsubscribeUnicastMonitoring

 tags:

 - Individual Unicast Monitoring Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: >

 Represents the identifier of an individual unicast monitoring subscription resource.

 required: true

 schema:

 type: string

 responses:

 '204':

 description: >

 The Individual Unicast Monitoring Subscription resource matching the

 subscriptionId is deleted.

 '307':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/404'

 '429':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29122\_CommonData.yaml#/components/responses/default'

 get:

 summary: Read an existing individual unicast monitoring subscription resource according to the subscriptionId.

 operationId: ReadUnicastMonitoringSubscription

 tags:

 - Individual Unicast Monitoring Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: >

 Represents the identifier of an individual unicast monitoring subscription resource.

 required: true

 schema:

 type: string

 responses:

 '200':

 description: The requested individual unicast monitoring subscription returned.

 content:

 application/json:

 schema:

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

 '400':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/404'

 '406':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/406'

 '429':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29122\_CommonData.yaml#/components/responses/default'

 put:

 summary: >

 Update an individual unicast monitoring subscription identified by the subscriptionId.

 operationId: UpdateUnicastMonitoring

 tags:

 - Individual Unicast Monitoring Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: >

 Represents the identifier of an individual unicast monitoring subscription resource.

 required: true

 schema:

 type: string

 requestBody:

 description: Updated details of the unicast QoS monitoring subscription.

 required: true

 content:

 application/json:

 schema:

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

 responses:

 '200':

 description: >

 The subscription is updated successfully, and the updated subscription

 information returned in the response.

 content:

 application/json:

 schema:

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

 '307':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29122\_CommonData.yaml#/components/responses/default'

 patch:

 summary: >

 Modify an individual unicast monitoring subscription identified

 by the subscriptionId.

 operationId: ModifyUnicastMonitoring

 tags:

 - Individual Unicast Monitoring Subscription (Document)

 parameters:

 - name: subscriptionId

 in: path

 description: >

 Represents the identifier of an individual unicast monitoring subscription resource.

 required: true

 schema:

 type: string

 requestBody:

 required: true

 content:

 application/merge-patch+json:

 schema:

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

 responses:

 '200':

 description: >

 Individual individual unicast QoS monitoring subscription resource is modified

 successfully and representation of the modified individual unicast QoS monitoring

 subscription resource is returned.

 content:

 application/json:

 schema:

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

 '307':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/307'

 '308':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/308'

 '400':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/400'

 '401':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/401'

 '403':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/403'

 '404':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/404'

 '411':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/411'

 '413':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/413'

 '415':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/415'

 '429':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/429'

 '500':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/500'

 '503':

 $ref: 'TS29122\_CommonData.yaml#/components/responses/503'

 default:

 $ref: 'TS29122\_CommonData.yaml#/components/responses/default'

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{tokenUrl}'

 scopes: {}

 schemas:

 MonitoringReport:

 description: Indicates the monitoring information for VAL UEs list, VAL Group, or VAL Stream.

 type: object

 properties:

 valUeIds:

 type: array

 minItems: 1

 items:

 $ref: 'TS29549\_SS\_UserProfileRetrieval.yaml#/components/schemas/ValTargetUe'

 description: List of VAL UEs whose QoS monitoring data is requested.

 valGroupId:

 type: string

 description: The VAL Group Id which QoS monitoring data is requested.

 valStreamIds:

 type: array

 minItems: 1

 items:

 type: string

 description: List of VAL streams for which QoS monitoring data is requested.

 measData:

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

 failureRep:

 type: array

 items:

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

 description: >

 The failure report indicating the VAL UE(s) or VAL Stream ID(s) whose measurement

 data is not obtained successfully.

 timestamp:

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

 monProfId:

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

 required:

 - measData

 - timestamp

 oneOf:

 - required: [valUeIds]

 - required: [valGroupId]

 - required: [valStreamIds]

 MeasurementData:

 description: Presents the aggregated measurement data.

 type: object

 properties:

 dlDelay:

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

 ulDelay:

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

 rtDelay:

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

 avgPlr:

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

 avgDataRate:

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

 maxDataRate:

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

 avrDlTrafficVol:

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

 avrUlTrafficVol:

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

 anyOf:

 - required: [dlDelay]

 - required: [ulDelay]

 - required: [rtDelay]

 - required: [avgPlr]

 - required: [avgDataRate]

 - required: [maxDataRate]

 - required: [avrDlTrafficVol]

 - required: [avrUlTrafficVol]

 MeasurementPeriod:

 description: >

 Indicates the measurement time period.

 type: object

 properties:

 measStartTime:

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

 measDuration:

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

 required:

 - measStartTime

 - measDuration

 ReportingRequirements:

 description: Indicates the requested frequency of reporting.

 type: object

 properties:

 reportingMode:

 $ref: 'TS29508\_Nsmf\_EventExposure.yaml#/components/schemas/NotificationMethod'

 reportingPeriod:

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

 reportingThrs:

 type: array

 items:

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

 minItems: 1

 immRep:

 type: boolean

 repTerminMode:

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

 expirationTimer:

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

 maxNumRep:

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

 termThr:

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

 termThrMode:

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

 required:

 - reportingMode

 FailureReport:

 description: >

 Represents the failure report indicating the VAL UE(s) or VAL Stream ID(s)

 for which the NRM server failed to obtain the requested data.

 type: object

 properties:

 valUeIds:

 type: array

 minItems: 1

 items:

 $ref: 'TS29549\_SS\_UserProfileRetrieval.yaml#/components/schemas/ValTargetUe'

 description: >

 List of VAL UE(s) whose measurement data is not obtained successfully.

 valStreamIds:

 type: array

 minItems: 1

 items:

 type: string

 description: >

 List of VAL stream ID(s) whose measurement data is not obtained successfully.

 failureReason:

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

 measDataType:

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

 required:

 - measDataType

 MeasurementRequirements:

 description: Indicates the measurement requirements.

 type: object

 properties:

 measDataTypes:

 type: array

 items:

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

 minItems: 1

 description: Indicates the required the QoS measurement data types.

 measAggrGranWnd:

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

 measPeriod:

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

 required:

 - measDataTypes

 MonitoringSubscription:

 description: The unicast monitoring subscription request.

 type: object

 properties:

 valUeIds:

 description: List of VAL UEs whose QoS monitoring data is requested.

 type: array

 minItems: 1

 items:

 $ref: 'TS29549\_SS\_UserProfileRetrieval.yaml#/components/schemas/ValTargetUe'

 valGroupId:

 type: string

 description: The VAL Group Id which QoS monitoring data is requested.

 valStreamIds:

 type: array

 minItems: 1

 items:

 type: string

 description: List of VAL streams for which QoS monitoring data is requested.

 valServId:

 type: string

 description: Contains the VAL service identifier.

 monProfId:

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

 measReqs:

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

 monRep:

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

 reportReqs:

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

 notifUri:

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

 reqTestNotif:

 type: boolean

 wsNotifCfg:

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

 suppFeat:

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

 oneOf:

 - required: [valUeIds]

 - required: [valGroupId]

 - required: [valStreamIds]

 ReportingThreshold:

 description: >

 Indicates the requested reporting termination threshold for the measurement index(es).

 type: object

 properties:

 measThrValues:

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

 thrDirection:

 $ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/MatchingDirection'

 required:

 - measThrValues

 - thrDirection

 MonitoringSubscriptionPatch:

 description: Represents the monitoring subscription modification request.

 type: object

 properties:

 measReqs:

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

 reportReqs:

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

 notifUri:

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

# Simple data types and Enumerations

 MeasurementDataType:

 anyOf:

 - type: string

 enum:

 - DL\_DELAY

 - UL\_DELAY

 - RT\_DELAY

 - AVG\_PLR

 - AVG\_DATA\_RATE

 - MAX\_DATA\_RATE

 - AVG\_DL\_TRAFFIC\_VOLUME

 - AVG\_UL\_TRAFFIC\_VOLUME

 - 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.

 description: |

 Indicates the requested measurement data type.

 Possible values are:

 - DL\_DELAY: Downlink packet delay.

 - UL\_DELAY: Uplink packet delay.

 - RT\_DELAY: Round trip packet delay.

 - AVG\_PLR: Average packet loss rate.

 - AVG\_DATA\_RATE: Average data rate.

 - MAX\_DATA\_RATE: Maximum data rate.

 - AVG\_DL\_TRAFFIC\_VOLUME: Average downlink traffic volume.

 - AVG\_UL\_TRAFFIC\_VOLUME: Average uplink traffic volume.

 TerminationMode:

 anyOf:

 - type: string

 enum:

 - TIME\_TRIGGERED

 - EVENT\_TRIGGERED\_NUM\_REPORTS\_REACHED

 - EVENT\_TRIGGERED\_MEAS\_THR\_REACHED

 - USER\_TRIGGERED

 - 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.

 description: |

 Indicates the termination mode.

 Possible values are:

 - TIME\_TRIGGERED: Time-triggered termination mode.

 - EVENT\_TRIGGERED\_NUM\_REPORTS\_REACHED: Event-triggered termination number of reports

 reached mode.

 - EVENT\_TRIGGERED\_MEAS\_THR\_REACHED: The event-triggered termination measurement index

 threshold reached mode.

 - USER\_TRIGGERED: User-triggered termination mode.

 FailureReason:

 anyOf:

 - type: string

 enum:

 - USER\_NOT\_FOUND

 - STREAM\_NOT\_FOUND

 - DATA\_NOT\_AVAILABLE

 - OTHER\_REASON

 - 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.

 description: |

 Represents the failure reason.

 Possible values are:

 - USER\_NOT\_FOUND: The user is not found.

 - STREAM\_NOT\_FOUND: The stream is not found.

 - DATA\_NOT\_AVAILABLE: The requested data is not available.

 - OTHER\_REASON: Other reason (unspecified).

 ThresholdHandlingMode:

 anyOf:

 - type: string

 enum:

 - ALL\_REACHED

 - ANY\_REACHED

 - 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.

 description: |

 Indicates the multi-parameter threshold handling mode.

 Possible values are:

 - ALL\_REACHED: The decision criterion is met when all the provided thresholds are reached.

 - ANY\_REACHED: The decision criterion is met when any of the provided threshold(s)

 is reached.

 MonProfileId:

 type: string

 description: >

 Represents the monitoring profile identifier encoded as a string.

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