**3GPP TSG-CT WG4 Meeting #99eC4-204xyz**

**E-Meeting, 18th – 28th August 2020 (was C4-204127)**

|  |
| --- |
| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **29.563** | **CR** | **0008** | **rev** | **1** | **Current version:** | **16.1.0** |  |
|  |
|  |
| *For* [***HELP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
|  |

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

|  |
| --- |
|  |
| ***Title:***  | Correction of HSS Event Exposure data types |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | CT4 |
|  |  |
| ***Work item code:*** | UDICOM |  | ***Date:*** | 2020-08-03 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-16 |
|  | *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-12 (Release 12)Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
|  |  |
| ***Reason for change:*** | Some information is still incomplete for Nhss event exposure service |
|  |  |
| ***Summary of change:*** | Event Exposure in HSS NF service is completed |
|  |  |
| ***Consequences if not approved:*** | Misaligned/inconsistent stage 2 and stage 3 specifications. Incomplete stage 3 API.  |
|  |  |
| ***Clauses affected:*** | 2, 6.4.6.1, 6.4.6.2.2, 6.4.6.2.4, 6.4.6.2.5, 6.4.6.2.6, 6.4.6.2.x1 (new), 6.4.6.2.x2 (new), 6.4.6.2.x3 (new), 6.4.6.2.x4 (new), 6.4.6.2.x5 (new), 6.4.6.3.y1 (new), 6.4.6.3.y2 (new), A.5 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  |  |
| ***affected:*** |  | **X** |  Test specifications |  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications |  |
|  |  |
| ***Other comments:*** | This CR introduces backward compatible corrections, with impacts on the following APIs:- TS29563\_Nhss\_EE.yaml  |
|  |  |
| ***This CR's revision history:*** |  |

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

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 23.501: "System Architecture for the 5G System; Stage 2".

[3] 3GPP TS 23.502: "Procedures for the 5G System; Stage 2".

[4] 3GPP TS 29.500: "5G System; Technical Realization of Service Based Architecture; Stage 3".

[5] 3GPP TS 29.501: "5G System; Principles and Guidelines for Services Definition; Stage 3".

[6] 3GPP TS 23.335: "User Data Convergence (UDC); Technical realization and information flows".

[7] 3GPP TS 29.335: "User Data Convergence (UDC); User Data Repository Access Protocol over the Ud interface".

[8] 3GPP TS 23.632: "User Data Interworking, Coexistence and Migration".

[9] IETF RFC 7540: "Hypertext Transfer Protocol Version 2 (HTTP/2)".

[10] OpenAPI Initiative, "OpenAPI 3.0.0 Specification", <https://github.com/OAI/OpenAPI-Specification/blob/master/versions/3.0.0.md>

[11] IETF RFC 8259: "The JavaScript Object Notation (JSON) Data Interchange Format".

[12] IETF RFC 7807: "Problem Details for HTTP APIs".

[13] 3GPP TS 29.503: "5G System; Unified Data Management Services; Stage 3".

[14] 3GPP TR 21.900: "Technical Specification Group working methods".

[15] 3GPP TS 23.003: "Numbering, addressing and identification".

[16] 3GPP TS 29.303: "Domain Name System Procedures; Stage 3".

[17] 3GPP TS 29.272: "Evolved Packet System; MME and SGSN Related Interfaces Based on Diameter Protocol".

[xx] 3GPP TS 23.682: "Architecture enhancements to facilitate communications with packet data networks and applications".

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

#### 6.4.6.1 General

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

Table 6.4.6.1-1 specifies the data types defined for the Nhss\_EE service API.

Table 6.4.6.1-1: Nhss\_EE specific Data Types

|  |  |  |
| --- | --- | --- |
| Data type | Clause defined | Description |
| EeSubscription | 6.4.6.2.2 | A subscription to Notifications |
| CreatedEeSubscription | 6.4.6.2.3 |  |
| MonitoringConfiguration | 6.4.6.2.4 | Monitoring Configuration |
| MonitoringReport | 6.4.6.2.5 | Monitoring Report |
| Report | 6.4.6.2.6 |  |
| ReportingOptions | 6.4.6.2.x1 |  |
| LocationReportingConfiguration | 6.4.6.2.x2 |  |
| ReachabilityForSmsReport | 6.4.6.2.x3 |  |
| LossConnectivityConfiguration | 6.4.6.2.x4 |  |
| ReachabilityForDataConfiguration | 6.4.6.2.x5 |  |
| EventType | 6.4.6.3.y1 |  |
| LocationAccuracy | 6.4.6.3.y2 |  |

Table 6.4.6.1-2 specifies data types re-used by the Nhss\_EE service API from other specifications, including a reference to their respective specifications and when needed, a short description of their use within the Nhss\_EE service API.

Table 6.4.6.1-2: Nhss\_EE re-used Data Types

|  |  |  |
| --- | --- | --- |
| Data type | Reference | Comments |
| Uri | 3GPP TS 29.571 [7] | Uniform Resource Identifier |
| SupportedFeatures | 3GPP TS 29.571 [7] | See 3GPP TS 29.500 [4] clause 6.6 |
| DateTime | 3GPP TS 29.571 [7] |  |
| PatchResult | 3GPP TS 29.571 [7] |  |
| DurationSec | 3GPP TS 29.571 [7] |  |
| DiameterIdentity | 3GPP TS 29.571 [7] |  |
|  |  |  |

#####

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

##### 6.4.6.2.2 Type: EeSubscription

Table 6.4.6.2.2-1: Definition of type EeSubscription

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| callbackReference | Uri | M | 1 | URI provided by the NF service consumer to receive notifications |
| monitoringConfigurations | map(MonitoringConfiguration) | O | 1..N | A map (list of key-value pairs where referenceId converted from integer to string serves as key) of MonitoringConfigurations |
| scefId | DiameterIdentity | O | 0..1 | Diameter Identify (FQDN) of the SCEF |
| supportedFeatures | SupportedFeatures | O | 0..1 | See clause 6.4.8 |
| reportingOptions | ReportingOptions | O | 0..1 | This IE may be included if the NF service consumer wants to describe how the reports of the event are to be generated.If this attribute is not present in the request, it means that the NF service consumer does not specify any maximum number of reports or any expiry time for the subscription; still, the NF service producer (HSS) may set an expiry time in the response to the subscription creation (see clause 6.4.6.2.x1). |

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

##### 6.4.6.2.4 Type: MonitoringConfiguration

Table 6.4.6.2.4-1: Definition of type MonitoringConfiguration

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| eventType | EventType | M | 1 | Event type |
| immediateFlag | boolean | O | 0..1 | Indicates if an immediate event report in the subscription response indicating current value / status of the event is required, if available. If the flag is not present, then immediate reporting may be skipped. |
| locationReportingConfiguration | LocationReportingConfiguration | C | 0..1 | Shall be present if eventType is "LOCATION\_REPORTING" |
| lossConnectivityConfiguration | LossConnectivityConfiguration | O | 0..1 | May be present if eventType is "LOSS\_OF\_CONNECTIVITY". |
| reachabilityForDataConfiguration | ReachabilityForDataConfiguration | O | 0..1 | May be present if eventType is " UE\_REACHABILITY\_FOR\_DATA" |

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

##### 6.4.6.2.5 Type: MonitoringReport

Table 6.4.6.2.5-1: Definition of type MonitoringReport

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| referenceId | ReferenceId | M | 1 | Shall contain the Reference ID which was provided as the key of the associated monitoring configuration in subscription request. The consumer can use this IE to uniquely associate the report with the corresponding event that was requested to be monitored. |
| eventType | EventType | M | 1 | String; see clause 6.4.6.3.3only the following values are allowed:"UE\_REACHABILITY\_FOR\_SMS" |
| timeStamp | DateTime | M | 1 | Point in time at which the event occured |
| report | Report | O | 0..1 | Shall be present if eventType is "UE\_REACHABILITY\_FOR\_SMS" |

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

##### 6.4.6.2.6 Type: Report

Table 6.4.6.2.6-1: Definition of type Report

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| reachabilityForSmsReport | ReachabilityForSmsReport | O | 0..1 | Reports the UE reachacbility for SMS |

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

##### 6.4.6.2.x1 Type: ReportingOptions

Table 6.4.6.2.x1-1: Definition of type ReportingOptions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| maxNumOfReports | MaxNumOfReports | O | 0..1 | Maximum number of reports. If not present, the NF service consumer does not specify any maximum number of reports to be received.(NOTE) |
| expiry | DateTime | C | 0..1 | This IE shall be included in an event subscription response, if, based on operator policy, the HSS needs to include an expiry time, and may be included in an event subscription request. When present, this IE shall represent the time at which monitoring shall cease and the subscription becomes invalid. If the maxNumOfReports included in an event subscription response is 1 and if an event report is included in the subscription response then the value of the expiry included in the response shall be an immediate timestamp.(NOTE) |
| reportPeriod | DurationSec | C | 0..1 | Indicates the interval time between which the event notification is reported, may be present if event type is “LOCATION\_REPORTING” |
| NOTE: If parameter "maxNumOfReports" and "expiry" are included at the same time, the subscription will expire as soon as one of the conditions is met.  |

##### 6.4.6.2.x2 Type: LocationReportingConfiguration

Table 6.4.6.2.x2-1: Definition of type LocationReportingConfiguration

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| currentLocation | boolean | M | 1 | true: Indicates that current location is requested.false: Indicates that last known location is requested. |
| accuracy | LocationAccuracy | C | 0..1 | Indicates whether Cell-level or TA-level accuracy is requested. Shall be present when current location is requested. |

##### 6.4.6.2.x3 Type: ReachabilityForSmsReport

Table 6.4.6.2.x3-1: Definition of type ReachabilityForSmsReport

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| reachabilitySmsStatus | boolean | M | 1 | true: UE is reachable for SMSfalse: UE is not reachable for SMS |
| maxAvailabilityTime | DateTime | O | 0..1 | Indicates the time (in UTC) until which the UE is expected to be reachable.This information may be used by the SMS Service Center to prioritize the retransmission of pending Mobile Terminated Short Message to UEs using a power saving mechanism (eDRX, PSM etc.). |

##### 6.4.6.2.x4 Type: LossConnectivityConfiguration

Table 6.4.6.2.x4-1: Definition of type LossConnectivityConfiguration

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| maxDetectionTime | DurationSec | O | 0..1 | When present, it indicates the configured Maximum Detection Time |

##### 6.4.6.2.x5 Type: ReachabilityForDataConfiguration

Table 6.4.6.2.x5-1: Definition of type ReachabilityForDataConfiguration

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| maximumLatency | DurationSec | O | 0..1 | When present, it indicates the configured Maximum Latency. (NOTE) |
| maximumResponseTime | DurationSec | O | 0..1 | When present, it indicates the configured Maximum Response Time. (NOTE) |
| suggestedPacketNumDl | integer | O | 0..1 | When present, it indicates the configured Suggested number of downlink packets. (NOTE) |
| NOTE: At least one of maximumLatency, maximumResponseTime or suggestedPacketNumDl shall be present |

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

##### 6.4.6.3.2 Simple data types

The simple data types defined in table 6.4.6.3.2-1 shall be supported.

Table 6.4.6.3.2-1: Simple data types

|  |  |  |
| --- | --- | --- |
| Type Name | Type Definition | Description |
| ReferenceId | integer | ReferenceId is used as key in a map of MonitoringConfigurations; see clause 6.4.6.2.4. |
| MaxNumOfReports | integer | Maximum number of reports.Minimum: 1 |

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

##### 6.4.6.3.y1 Enumeration: EventType

Table 6.4.6.3.y1-1: Enumeration EventType

|  |  |
| --- | --- |
| Enumeration value | Description |
| "LOSS\_OF\_CONNECTIVITY" | Loss of connectivity |
| "UE\_REACHABILITY\_FOR\_DATA" | UE reachability for data, implements the "UE Reachability" monitoring event as specified in clause 4.15.3.1 in 3GPP TS 23.502 [3].When this event is subscribed by an NF service consumer, the UDM subscribes to "ReachabilityReport" event for "UE Reachability for DL Traffic" on the AMF without URRP-AMF.When this event is subscribed by an NF service consumer, the UDM shall request the AMF to directly send notification to NF. |
| "UE\_REACHABILITY\_FOR\_SMS" | UE reachability for SMS, implements the "UE Reachability for SMS Delivery" event as specified in 3GPP TS 23.682 [xx].This event only supports One-Time reporting. |
| "LOCATION\_REPORTING" | Location Reporting |
| "COMMUNICATION\_FAILURE" | Communication Failure |
| "AVAILABILITY\_AFTER\_DDN\_FAILURE" | Availability after DDN failure |
| "PDN\_CONNECTIVITY\_STATUS" | PDN\_CONNECTIVITY\_STATUS |

##### 6.4.6.3.y2 Enumeration: LocationAccuracy

Table 6.4.6.3.y2-1: Enumeration LocationAccuracy

|  |  |
| --- | --- |
| Enumeration value | Description |
| "CELL\_LEVEL" | Change of cell shall be reported |
| "TA\_LEVEL" | Change of TA shall be reported |

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

## A.5 Nhss\_EE API

openapi: 3.0.0

info:

 version: '1.0.0'

 title: 'Nhss\_EE'

 description: |

 HSS Event Exposure

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externalDocs:

 description: 3GPP TS 29.563 HSS Services for Interworking With UDM, version 16.1.0

 url: 'http://www.3gpp.org/ftp/Specs/archive/29\_series/29.563/'

servers:

 - url: '{apiRoot}/nhss-ee/v1'

 variables:

 apiRoot:

 default: https://example.com

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

security:

 - {}

 - oAuth2ClientCredentials:

 - nhss-ee

paths:

 /{ueId}/ee-subscriptions:

 post:

 summary: Subscribe

 operationId: CreateEeSubscription

 tags:

 - EE Subscription (Collection)

 parameters:

 - name: ueId

 in: path

 description: IMSI of the subscriber

 required: true

 schema:

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

 requestBody:

 content:

 application/json:

 schema:

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

 required: true

 responses:

 '201':

 description: Expected response to a valid request

 content:

 application/json:

 schema:

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

 headers:

 Location:

 description: 'Contains the URI of the newly created resource, according to the structure: {apiRoot}/nhss-ee/v1/{ueIdentity}/ee-subscriptions/{subscriptionId}'

 required: true

 schema:

 type: string

 '400':

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

 '403':

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

 '404':

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

 '500':

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

 '501':

 $ref: 'TS29571\_CommonData.yaml#/components/responses/501'

 '503':

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

 default:

 description: Unexpected error

 callbacks:

 eventOccurrenceNotification:

 '{request.body#/callbackReference}':

 post:

 requestBody:

 required: true

 content:

 application/json:

 schema:

 type: array

 items:

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

 minItems: 1

 responses:

 '204':

 description: Successful Notification response

 '400':

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

 '404':

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

 '500':

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

 '503':

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

 default:

 description: Unexpected error

 /{ueId}/ee-subscriptions/{subscriptionId}:

 delete:

 summary: Unsubscribe

 operationId: DeleteEeSubscription

 tags:

 - Delete EE Subscription

 parameters:

 - name: ueId

 in: path

 description: IMSI of the subscriber

 required: true

 schema:

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

 - name: subscriptionId

 in: path

 description: Id of the EE Subscription

 required: true

 schema:

 type: string

 responses:

 '204':

 description: Successful response

 '400':

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

 '404':

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

 '500':

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

 '503':

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

 default:

 description: Unexpected error

 patch:

 summary: Patch

 operationId: UpdateEeSubscription

 tags:

 - Update EE Subscription

 parameters:

 - name: ueId

 in: path

 description: IMSI of the subscriber

 required: true

 schema:

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

 - name: subscriptionId

 in: path

 description: Id of the EE Subscription

 required: true

 schema:

 type: string

 requestBody:

 content:

 application/json-patch+json:

 schema:

 type: array

 items:

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

 minItems: 1

 required: true

 responses:

 '200':

 description: Expected response to a valid request

 content:

 application/json:

 schema:

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

 '204':

 description: Successful response

 '403':

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

 '404':

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

 default:

 description: Unexpected error

components:

 securitySchemes:

 oAuth2ClientCredentials:

 type: oauth2

 flows:

 clientCredentials:

 tokenUrl: '{nrfApiRoot}/oauth2/token'

 scopes:

 nhss-ee: Access to the nhss-ee API

 schemas:

# COMPLEX TYPES:

 Imsi:

 type: string

 pattern: '^(imsi-[0-9]{5,15})$'

 EeSubscription:

 type: object

 required:

 - callbackReference

 properties:

 callbackReference:

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

 scefId:

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

 monitoringConfigurations:

 description: A map (list of key-value pairs where ReferenceId serves as key) of MonitoringConfigurations

 type: object

 additionalProperties:

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

 minProperties: 1

 supportedFeatures:

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

 reportingOptions:

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

 CreatedEeSubscription:

 type: object

 required:

 - eeSubscription

 properties:

 eeSubscription:

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

 eventReports:

 type: array

 items:

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

 minItems: 1

 MonitoringConfiguration:

 type: object

 required:

 - eventType

 properties:

 eventType:

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

 immediateFlag:

 type: boolean

 locationReportingConfiguration:

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

 lossConnectivityConfiguration:

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

 reachabilityForDataConfiguration:

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

 MonitoringReport:

 type: object

 required:

 - referenceId

 - eventType

 - timeStamp

 properties:

 referenceId:

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

 eventType:

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

 timeStamp:

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

 report:

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

 ReportingOptions:

 type: object

 properties:

 maxNumOfReports:

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

 expiry:

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

 reportPeriod:

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

 Report:

 type: object

 properties:

 reachabilityForSmsReport:

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

 ReachabilityForSmsReport:

 type: object

 required:

 - reachabilitySmsStatus

 properties:

 reachabilitySmsStatus:

 type: boolean

 maxAvailabilityTime:

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

 LossConnectivityConfiguration:

 type: object

 properties:

 maxDetectionTime:

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

 LocationReportingConfiguration:

 type: object

 required:

 - currentLocation

 properties:

 currentLocation:

 type: boolean

 accuracy:

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

 ReachabilityForDataConfiguration:

 type: object

 anyOf:

 - required: [ maximumLatency ]

 - required: [ maximumResponseTime ]

 - required: [ suggestedPacketNumDl ]

 properties:

 maximumLatency:

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

 maximumResponseTime:

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

 suggestedPacketNumDl:

 type: integer

 minimum: 1

# SIMPLE TYPES:

 ReferenceId:

 type: integer

 MaxNumOfReports:

 type: integer

 minimum: 1

# ENUMS:

 EventType:

 anyOf:

 - type: string

 enum:

 - LOSS\_OF\_CONNECTIVITY

 - UE\_REACHABILITY\_FOR\_DATA

 - UE\_REACHABILITY\_FOR\_SMS

 - LOCATION\_REPORTING

 - COMMUNICATION\_FAILURE

 - AVAILABILITY\_AFTER\_DDN\_FAILURE

 - PDN\_CONNECTIVITY\_STATUS

 - type: string

 LocationAccuracy:

 anyOf:

 - type: string

 enum:

 - CELL\_LEVEL

 - TA\_LEVEL

 - type: string

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