**3GPP TSG CT WG3 Meeting #142 *C3-253519***

**Goteborg, SE, 25th – 29th August, 2025** *(revision of C3-253386)*

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.549** | **CR** | **0448** | **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:*** | Miscellaneous updates to UE RAT connectivity analytics, S&F events. | | | | | | | | |
|  |  | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | |
|  |  | | | | | | | | |
| ***Work item code:*** | 5GSAT\_Ph3\_App | | | | |  | ***Date:*** | | 2025-08-18 |
|  |  | | | |  | |  | |  |
| ***Category:*** | **F** |  | | | | | ***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 following essential updates are needed to SS\_ADAE\_UeRatConnectivityAnalytics API:  - Update clause 7.5.1.4.1 with 7.5.1.4.3.6 Enumeration: SatSfTrigger in  - In Table 7.10.8.5.1-2, Include 5GSatApp\_1 feature for TimeWIndow attribute.  - In 7.10.8.5.3.1, add 5GSatApp\_1 feature for UE RAT Analytics. | | | | | | |
|  | | |  | | | | | | |
| ***Summary of change:*** | | | This CR proposes to address the essential updates and corrections as illustrated in reason for change. | | | | | | |
|  | | |  | | | | | | |
| ***Consequences if not approved:*** | | | The necessary updates corrections are not addressed. | | | | | | |
|  | |  | | | | | | | |
| ***Clauses affected:*** | | 7.5.1.4.1, 7.10.8.5.1, 7.10.8.5.3.1 | | | | | | | |
|  | |  | | | | | | | |
|  | | **Y** | | **N** |  | | |  | |
| ***Other specs*** | |  | | **X** | Other core specifications | | | TS/TR ... CR ... | |
| ***affected:*** | |  | | **X** | Test specifications | | | TS/TR ... CR ... | |
| ***(show related CRs)*** | |  | | **X** | O&M Specifications | | | TS/TR ... CR ... | |
|  | |  | | | | | | | |
| ***Other comments:*** | | This CR introduces does not impcat any OpenAPI specification file. | | | | | | | |
|  | |  | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | |

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

##### 7.5.1.4.1 General

This clause specifies the application data model supported by the API. Data types listed in clause 6.2 apply to this API.

Table 7.5.1.4.1-1 specifies the data types defined specifically for the SS\_Events API service.

Table 7.5.1.4.1-1: SS\_Events API specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Section defined | Description | Applicability |
| EventSubscription | 7.5.1.4.2.4 | Represents the subscription to a single SEAL event. |  |
| GeofencingConditions | 7.5.1.4.2.26 | Represents the geofencing conditions. | LM\_LocationDeviation\_Ext1 |
| PartialEventSubscFailRep | 7.5.1.4.2.23 | Represents the partial failure report during the subscription creation. | PartialFailureSupport |
| IdentityFilter | 7.5.1.4.2.7 | Represents a filter of VAL User / UE identities belonging to a VAL service. |  |
| LMInformation | 7.5.1.4.2.8 | The location information for a VAL User ID or a VAL UE ID. |  |
| LocationAreaMonReport | 7.5.1.4.2.20 | Represents the event report to notify the VAL UEs moving in or moving out from a given location. |  |
| LocationDevMonReport | 7.5.1.4.2.15 | Represents the event report to notify the VAL UE/User's location deviation from a given location. |  |
| LocationInfoCriteria | 7.5.1.4.2.18 | Represents the location information to be monitored.  It includes the geographic location information or a reference UE along with the application defined proximity range from the reference UE. |  |
| LocDevNotification | 7.5.1.4.3.4 | Enumeration of location deviation notification reports. |  |
| MessageFilter | 7.5.1.4.2.9 | The message filter information applicable to member VAL UEs or Users of the VAL group in the group change notification. |  |
| MonitorEvents | 7.5.1.4.2.11 | Represents the details of the monitoring and analytics events. | NRM\_EventMonitor |
| MonitorEventsReport | 7.5.1.4.2.12 | Represents the monitoring and analytics events information related to VAL UE or User. | NRM\_EventMonitor |
| MonitorFilter | 7.5.1.4.2.10 | Represents the filter information VAL User or UEs and the related events to be monitored. | NRM\_EventMonitor |
| MonitorLocationInterestFilter | 7.5.1.4.2.14 | Filter information to subscribe for monitoring the VAL UE/User location in a given area of interest. |  |
| MonLocAreaInterestFltr | 7.5.1.4.2.17 | Filter information to subscribe for location area monitoring information for a given area of interest. |  |
| MonLocTriggerEvent | 7.5.1.4.3.5 | Identifies the triggering event in the location area monitor filtering. |  |
| MoveInOutUEDetails | 7.5.1.4.2.21 | Represents the list of UEs either moved into the location area or moved out of the location area. |  |
| MovTimingInfo | 7.5.1.4.2.27 | Represents the timing information of a VAL UE's movements. | LM\_LocationAreaMonitor\_Ext1 |
| ReferenceUEDetail | 7.5.1.4.2.19 | Represents the reference UE details |  |
| RefUeCap | 7.5.1.4.2.29 | Represents the capabilities of the reference UE. |  |
| DataStatisticsReq | 7.5.1.4.2.24 | Represents the required information to calculate the target UE's location. |  |
| SatSfInfo | 7.5.1.4.2.28 | Represents the event reporting of satellite SF information. | NRM\_SatSfInfo |
| SEALEvent | 7.5.1.4.3.3 | Represents the type of SEAL events that can be subscribed. |  |
| SEALEventDetail | 7.5.1.4.2.5 | Represents the SEAL event detail. |  |
| SEALEventNotification | 7.5.1.4.2.3 | Represents an individual SEAL Event Subscription Notification. |  |
| SEALEventSubscription | 7.5.1.4.2.2 | Represents an individual SEAL Event Subscription resource. |  |
| SEALEventSubscriptionPatch | 7.5.1.4.2.22 | Represents the parameters to request the modification of a SEAL Event subscription resource. | SubscUpdate |
| SatSfTrigger | 7.5.1.4.3.6 | Represents the store and forward triggering conditions. | NRM\_SatSfInfo |
| TempGroupInfo | 7.5.1.4.2.16 | Represents the created temporary VAL group information. | GM\_TempGroup |
| TimeReqs | 7.5.1.4.2.25 | Represents the required time information to calculate the target UE's location. |  |
| VALGroupFilter | 7.5.1.4.2.6 | Represents a filter of VAL group identifiers belonging to a VAL service. |  |
| ValidityConditions | 7.5.1.4.2.13 | Represents the temporal and/or spatial conditions applied for the events to be monitored. | NRM\_EventMonitor |

Table 7.5.1.4.1-2 specifies data types re-used by the SS\_Events API service:

Table 7.5.1.4.1-2: Re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| AccessType | 3GPP TS 29.522 [28] | Used to represent the access type. | LM\_LocationDeviation\_Ext1 |
| AnalyticsEvent | 3GPP TS 29.522 [28] | Analytics event in NWDAF. | NRM\_EventMonitor |
| DateTime | 3GPP TS 29.122 [3] | Used to indicate a timestamp. |  |
| DurationSec | 3GPP TS 29.122 [3] | Used to indicate the notification interval in the location monitoring filter. |  |
| Float | 3GPP TS 29.571 [21] | Used to represent the fractional part of the proximity range in the reference UE details. |  |
| GeoArea | Clause 7.4.1.4.2.19 | Represents the geographical area. |  |
| GeographicArea | 3GPP TS 29.572 [31] | Identifies the geographical information of the user(s). |  |
| LocationArea5G | 3GPP TS 29.122 [3] | User location area when the UE is attached to 5G. | NRM\_EventMonitor |
| LocationInfo | 3GPP TS 29.122 [3] | Location information |  |
| LocationQoS | 3GPP TS 29.572 [31] | Identifies QoS requested by VAL server. | LM\_LocationInfoChange\_Extension1 |
| MonitoringType | 3GPP TS 29.122 [3] | Monitoring event type in 3GPP system core network. | NRM\_EventMonitor |
| PlmnIdNid | 3GPP TS 29.571 [21] | Used to represent the identifier of the PLMN. | LM\_LocationDeviation\_Ext1 |
| ProfileDoc | Clause 7.3.1.4.2.2 | Used to send VAL User or VAL UE profile information as part of event detail in the event notification. |  |
| ReportingInformation | 3GPP TS 29.523 [20] | Used to indicate the reporting requirement, only the following information are applicable for SEAL:  - immRep  - notifMethod  - maxReportNbr  - monDur  - repPeriod |  |
| ScheduledCommunicationTime | 3GPP TS 29.122 [3] | Used to define the time frame for message filters. |  |
| SupportedFeatures | 3GPP TS 29.571 [21] | Used to negotiate the applicability of optional features defined in table 7.5.1.6-1. |  |
| TestNotification | 3GPP TS 29.122 [3] | Following differences apply:  - The SCEF is the SEAL server; and  - The SCS/AS is the subscribing VAL server. |  |
| TimeWindow | 3GPP TS 29.122 [3] | Time window identified by a start time and a stop time. | NRM\_EventMonitor |
| UeStrAndFwdStatus | 3GPP TS 29.122 [3] | Identifies the UE status in Store and Forward mode. |  |
| Uinteger | 3GPP TS 29.571 [21] | Used to represent maximum number of messages in MesageFilter data type. |  |
| Uri | 3GPP TS 29.122 [3] | Used to indicate a notification URI. |  |
| VALGroupDocument | Clause 7.2.1.4.2.2 | Used to send VAL group document as part of event detail in the event notification. |  |
| ValSvcAreaId | Clause 7.1.3.4.3.2 | Used to represent the VAL service area identifier. | ValSrvArea |
| ValTargetUe | 7.3.1.4.2.3 | Used to identify a VAL user ID or a VAL UE ID. |  |
| WebsockNotifConfig | 3GPP TS 29.122 [3] | Following differences apply:  - The SCEF is the CAPIF core function; and  - The SCS/AS is the Subscribing functional entity. |  |

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

##### 7.10.8.5.1 General

This clause specifies the application data model supported by the API. Data types listed in clause 6.2 apply to this API

Table 7.10.8.5.1-1 specifies the data types defined specifically for the SS\_AADRF\_DataManagement API service.

**Table 7.10.8.5.1-1: SS\_AADRF\_DataManagement API specific Data Types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Section defined** | **Description** | **Applicability** |
| AnalyticsMode | 7.10.8.5.2.16 | Represents the analytics mode. |  |
| AadrfEvent | 7.10.8.5.3.1 | Indicates the subscribed events. |  |
| ApiLogInfo | 7.10.8.5.2.7 | Represents the API log data. |  |
| ApiLogReq | 7.10.8.5.2.5 | Represents the API log request requirement. |  |
| Data | 7.10.8.5.2.11 | Represent the data for storage at A-ADRF. |  |
| DataManageNotification | 7.10.8.5.2.6 | Represents the notification to the consumer. |  |
| DataManageSub | 7.10.8.5.2.2 | Represents the events subscription. |  |
| DataProducerProfile | 7.10.8.5.2.12 | Represents the data producer profile. |  |
| DataSourceInfo | 7.10.8.5.2.13 | Represents the data source information. |  |
| DataStoreReq | 7.10.8.5.2.9 | Represents the data storage request. |  |
| DataStoreResp | 7.10.8.5.2.15 | Represents the data storage response. |  |
| DataStoreSub | 7.10.8.5.2.10 | Represents the requirements for subscription based data storage. |  |
| DataType | 7.10.8.5.3.3 | Represents the type of data. |  |
| EdgeInfo | 7.10.8.5.2.8 | Represents the EDGE related data. |  |
| EdgeReq | 7.10.8.5.2.4 | Represents the EDGE data request requirement. |  |
| EventSubscription | 7.10.8.5.2.3 | Represents the event subscription. |  |
| ExposureLevel | 7.10.8.5.3.2 | Indicates the exposure level. |  |
| Mode | 7.10.8.5.3.4 | Represents the supported modes of analytics. |  |
| S2SAnalyticsInfo | 7.10.8.5.2.18 | Represents the Server to Server Analytics related data. | EdgeApp\_3 |
| S2SAnalyticsReq | 7.10.8.5.2.17 | Represents the Server to Server Analytics request requirements. | EdgeApp\_3 |
| StorageHandlingInfo | 7.10.8.5.2.14 | Represent the storage handing information. |  |
| UERatAnalyticsInfo | 7.10.8.5.2.20 | Represents UE RAT Connectivity Analytics data. | 5GSatApp\_1 |
| UERatAnalyticsReq | 7.10.8.5.2.19 | Represents UE RAT Connectivity Analytics requirements. | 5GSatApp\_1 |

Table 7.10.8.5.1-2 specifies data types re-used by the SS\_AADRF\_DataManagement API service.

**Table 7.10.8.5.1-2: Re-used Data Types**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Reference** | **Comments** | **Applicability** |
| DataTime | 3GPP TS 29.122 [3] | Represents data and time. |  |
| Dnai | 3GPP TS 29.571 [21] | Identifies a user plane access to one or more DN(s). |  |
| Dnn | 3GPP TS 29.571 [21] | Used to Identify a DNN. |  |
| DurationSec | 3GPP TS 29.122 [3] | Represents duration in seconds. |  |
| Float | 3GPP TS 29.571 [21] | Used to represent the fractional part of the proximity range in the reference UE details. |  |
| LocationArea5G | 3GPP TS 29.122 [3] | Represents the location information. |  |
| S2SPerfAnalyticsData | Clause 7.10.14.6.2.5 | Contains the Server to Server Analytics data. | EdgeApp\_3 |
| ServerInfo | Clause 7.10.14.6.2.6 | Represents the Server Information. | EdgeApp\_3 |
| Snssai | 3GPP TS 29.571 [21] | Used to Identify the S-NSSAI. |  |
| SupportedFeatures | 3GPP TS 29.571 [21] | Used to negotiate the applicability of optional features. |  |
| TimeWindow | 3GPP TS 29.122 [3] | Indicates the time window. | EdgeApp\_3, 5GSatApp\_1 |
| UeRatAnalyticsOutput | Clause 7.10.12.6.2.8 | Contains the UE RAT connectivity analytics output. |  |
| Uinteger | 3GPP TS 29.571 [21] | Used to represent integer attributes within MeasurementData and ReportingRequirements data structures. |  |
| Uri | 3GPP TS 29.571 [21] | Used to indicate the notification URI. |  |
| ValTargetUe | Clause 7.3.1.4.2.3 | Used to indicate either VAL User ID or VAL UE ID. |  |
| ValidityConditions | Clause 7.5.1.4.2.13 | Represents the temporal and/or spatial conditions applied for the events to be monitored. |  |
| ValUeAddrInfo | Clause 7.4.1.4.2.30 | Represents VAL UE address information. |  |

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

###### 7.10.8.5.3.1 Enumeration: AadrfEvent

Table 7.10.8.5.3.1-1: Enumeration AadrfEvent

|  |  |  |
| --- | --- | --- |
| Enumeration value | Description | Applicability |
| HISTORICAL\_SERVICEAPI | The event for historical service API logs. |  |
| NETWORK\_SLICE | The event for the network slice data. |  |
| EDGE\_DATA | The event for the EDGE related data. |  |
| LOCATION\_ACCURACY | The event for the location accuracy data. |  |
| SERVER\_TO\_SERVER\_ANALYTICS | The event for the Server to Server analytics data. | EdgeApp\_3 |
| UE\_RAT\_ANALYTICS | The event for the UE RAT Connecitivity Analytics. | 5GSatApp\_1 |

NOTE: The A-ADRF is not required to support all the events simultaneously. The supported events negotiation between the consumer and A-ADRF depends on SLA.

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