**3GPP TSG-CT WG4 Meeting #111-e C4-224**

**E-Meeting, 18th – 26th August 2022 was C4-224342**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.572** | **CR** | **0139** | **rev** | **1** | **Current version:** | **17.5.0** |  |
|  | | | | | | | | |
| *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:*** | Alignment on the service name used with template | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | C4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_eLCS\_ph2 | | | | |  | ***Date:*** | | | 2022-08-10 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Based on the latest 29.xxx-SBI-Stage3-Template, it should use the service name instead of N<NF> in the clause 6.1.6. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | It proposes to use the service name instead of N<NF> in the clause 6.1.6. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | It is not aligned with the specification template. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.1.6, 6.2.6 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 doesn't introduce any impact in any OpenAPI files. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* Begin of Changes \* \* \* \*

### 6.1.6 Data Model

#### 6.1.6.1 General

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

Table 6.1.6.1-1 specifies the data types defined for the Nlmf\_Location service based interface protocol.

Table 6.1.6.1-1: Nlmf\_Location specific Data Types

|  |  |  |
| --- | --- | --- |
| Data type | Clause defined | Description |
| InputData | 6.1.6.2.2 | Information within Determine Location Request |
| LocationData | 6.1.6.2.3 | Information within Determine Location Response |
| GeographicalCoordinates | 6.1.6.2.4 | Geographical coordinates |
| GeographicArea | 6.1.6.2.5 | Geographic area specified by different shape |
| Point | 6.1.6.2.6 | Ellipsoid Point |
| PointUncertaintyCircle | 6.1.6.2.7 | Ellipsoid point with uncertainty circle |
| PointUncertaintyEllipse | 6.1.6.2.8 | Ellipsoid point with uncertainty ellipse |
| Polygon | 6.1.6.2.9 | Polygon |
| PointAltitude | 6.1.6.2.10 | Ellipsoid point with altitude |
| PointAltitudeUncertainty | 6.1.6.2.11 | Ellipsoid point with altitude and uncertainty ellipsoid |
| EllipsoidArc | 6.1.6.2.12 | Ellipsoid Arc |
| LocationQoS | 6.1.6.2.13 | QoS of Location request |
| CivicAddress | 6.1.6.2.14 | Indicates a Civic address |
| PositioningMethodAndUsage | 6.1.6.2.15 | Indicates the usage of a positioning method |
| GnssPositioningMethodAndUsage | 6.1.6.2.16 | Indicates the usage of a Global Navigation Satellite System (GNSS) positioning method |
| VelocityEstimate | 6.1.6.2.17 | Velocity estimate |
| HorizontalVelocity | 6.1.6.2.18 | Horizontal velocity |
| HorizontalWithVerticalVelocity | 6.1.6.2.19 | Horizontal and vertical velocity |
| HorizontalVelocityWithUncertainty | 6.1.6.2.20 | Horizontal velocity with speed uncertainty |
| HorizontalWithVerticalVelocityAndUncertainty | 6.1.6.2.21 | Horizontal and vertical velocity with speed uncertainty |
| UncertaintyEllipse | 6.1.6.2.22 | Ellipse with uncertainty |
| UeLcsCapability | 6.1.6.2.23 | Indicates the LCS capability supported by the UE. |
| PeriodicEventInfo | 6.1.6.2.24 | Indicates the information of periodic event reporting |
| AreaEventInfo | 6.1.6.2.25 | Indicates the information of area based event reporting |
| ReportingArea | 6.1.6.2.26 | Indicates an area for event reporting |
| MotionEventInfo | 6.1.6.2.27 | Indicates the information of motion based event reporting |
| CancelLocData | 6.1.6.2.29 | Information within Cancel Location Request |
| LocContextData | 6.1.6.2.30 | Information within Transfer Location Context Request |
| EventReportMessage | 6.1.6.2.31 | Indicates an event report message |
| EventReportingStatus | 6.1.6.2.32 | Indicates the status of event reporting |
| UELocationInfo | 6.1.6.2.33 | Indicates location information of a UE |
| EventNotifyData | 6.1.6.2.34 | Information within Event Notify Request |
| UeConnectivityState | 6.1.6.2.35 | Indicates the connectivity state of a UE |
| LocalOrigin | 6.1.6.2.36 | Indicates a Local origin in a reference system. |
| RelativeCartesianLocation | 6.1.6.2.37 | Relative Cartesian Location |
| Local2dPointUncertaintyEllipse | 6.1.6.2.38 | Local 2D point with uncertainty ellipse |
| Local3dPointUncertaintyEllipsoid | 6.1.6.2.39 | Local 3D point with uncertainty ellipsoid |
| UncertaintyEllipsoid | 6.1.6.2.40 | Ellipsoid with uncertainty |
| LocalArea | 6.1.6.2.41 | Local area specified by different shape |
| UeAreaIndication | 6.1.6.2.42 | UE area Indication |
| MinorLocationQoS | 6.1.6.2.43 | Minor Location QoS |
| Altitude | 6.1.6.3.2 | Indicates value of altitude |
| Angle | 6.1.6.3.2 | Indicates value of angle |
| Uncertainty | 6.1.6.3.2 | Indicates value of uncertainty |
| Orientation | 6.1.6.3.2 | Indicates value of orientation angle |
| Confidence | 6.1.6.3.2 | Indicates value of confidence |
| Accuracy | 6.1.6.3.2 | Indicates value of accuracy |
| InnerRadius | 6.1.6.3.2 | Indicates value of the inner radius |
| CorrelationID | 6.1.6.3.2 | LCS Correlation ID |
| AgeOfLocationEstimate | 6.1.6.3.2 | Indicates value of the age of the location estimate |
| HorizontalSpeed | 6.1.6.3.2 | Indicates value of horizontal speed |
| VerticalSpeed | 6.1.6.3.2 | Indicates value of vertical speed |
| SpeedUncertainty | 6.1.6.3.2 | Indicates value of speed uncertainty |
| BarometricPressure | 6.1.6.3.2 | Specifies the measured uncompensated atmospheric pressure |
| LcsServiceType | 6.1.6.3.2 | LCS service type |
| LdrReference | 6.1.6.3.2 | LDR Reference |
| ReportingAmount | 6.1.6.3.2 | Number of required periodic event reports |
| ReportingInterval | 6.1.6.3.2 | Event reporting periodic interval |
| MinimumInterval | 6.1.6.3.2 | Minimum interval between event reports |
| MaximumInterval | 6.1.6.3.2 | Maximum interval between event reports |
| SamplingInterval | 6.1.6.3.2 | Maximum time interval between consecutive evaluations by a UE of a trigger event |
| ReportingDuration | 6.1.6.3.2 | Maximum duration of event reporting |
| LinearDistance | 6.1.6.3.2 | Minimum straight line distance moved by a UE to trigger a motion event report |
| LMFIdentification | 6.1.6.3.2 | LMF identification |
| EventReportCounter | 6.1.6.3.2 | Number of event reports received from the target UE |
| EventReportDuration | 6.1.6.3.2 | Duration of event reporting |
| UePositioningCapabilities | 6.1.6.3.2 | Indicates the positioning capabilities supported by the UE. |
| ExternalClientType | 6.1.6.3.3 | Indicates types of External Clients |
| SupportedGADShapes | 6.1.6.3.4 | Indicates supported GAD shapes |
| ResponseTime | 6.1.6.3.5 | Indicates acceptable delay of location request |
| PositioningMethod | 6.1.6.3.6 | Indicates supported positioning methods |
| PositioningMode | 6.1.6.3.7 | Indicates supported modes used for positioning method |
| GnssId | 6.1.6.3.8 | Global Navigation Satellite System (GNSS) ID |
| Usage | 6.1.6.3.9 | Indicates usage made of the location measurement |
| LcsPriority | 6.1.6.3.10 | Indicates priority of the LCS client |
| VelocityRequested | 6.1.6.3.11 | Indicates velocity requirement |
| AccuracyFulfilmentIndicator | 6.1.6.3.12 | Indicates fulfilment of requested accuracy |
| VerticalDirection | 6.1.6.3.13 | Indicates direction of vertical speed |
| LdrType | 6.1.6.3.14 | Indicates LDR types |
| ReportingAreaType | 6.1.6.3.15 | Indicates type of event reporting area |
| OccurrenceInfo | 6.1.6.3.16 | Specifies occurrence of event reporting |
| ReportingAccessType | 6.1.6.3.17 | Specifies access types of event reporting |
| EventClass | 6.1.6.3.18 | Specifies event classes |
| ReportedEventType | 6.1.6.3.19 | Specifies type of event reporting |
| TerminationCause | 6.1.6.3.20 | Specifies causes of event reporting termination |
| LcsQosClass | 6.1.6.3.21 | Specifies LCS QoS class |
| UeLocationServiceInd | 6.1.6.3.22 | Specifies location service types requested by UE |

Table 6.1.6.1-2 specifies data types re-used by the Nlmf\_Location service based interface protocol from other specifications, including a reference to their respective specifications and when needed, a short description of their use within the Nlmf\_Location service based interface.

Table 6.1.6.1-2: Nlmf\_Location re-used Data Types

|  |  |  |
| --- | --- | --- |
| Data type | Reference | Comments |
| Supi | 3GPP TS 29.571 [8] | Subscription Permanent Identifier |
| Pei | 3GPP TS 29.571 [8] | Permanent Equipment Identifier |
| Gpsi | 3GPP TS 29.571 [8] | Generic Public Subscription Identifier |
| Ecgi | 3GPP TS 29.571 [8] | E-UTRA Cell Identity |
| Ncgi | 3GPP TS 29.571 [8] | NR Cell Identity |
| NfInstanceId | 3GPP TS 29.571 [8] | Network Function Instance ID |
| Uri | 3GPP TS 29.571 [8] | Uniform Resource Identifier |
| RefToBinaryData | 3GPP TS 29.571 [8] | Reference to binary data |
| AccessType | 3GPP TS 29.571 [8] | Access type |
| CmState | 3GPP TS 29.518 [23] | Connection Management State |
| Guami | 3GPP TS 29.571 [8] | GUAMI |
| SupportedFeatures | 3GPP TS 29.571 [8] | Supported Features |
| RedirectResponse | 3GPP TS 29.571 [8] | Redirect Response |
| TwapId | 3GPP TS 29.571 [8] | TWAP identifier |
| TnapId | 3GPP TS 29.571 [8] | TNAP identifier |
| DateTime | 3GPP TS 29.571 [8] | Date and Time |

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

### 6.2.6 Data Model

#### 6.2.6.1 General

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

Table 6.2.6.1-1 specifies the data types defined for the Nlmf\_Broadcast service based interface protocol.

Table 6.2.6.1-1: Nlmf\_Broadcast specific Data Types

|  |  |  |
| --- | --- | --- |
| Data type | Clause defined | Description |
| CipheringKeyInfo | 6.2.6.2.2 | Information within Ciphering Key Data Notification request |
| CipheringKeyResponse | 6.2.6.2.3 | Information within Ciphering Key Data Notification Response |
| CipheringDataSet | 6.2.6.2.4 | Represents a Ciphering Data Set |
| CipheringSetReport | 6.2.6.2.5 | Represents a report of Ciphering Data Set storage |
| CipherRequestData | 6.2.6.2.6 | Information within Ciphering Key Data request |
| CipherResponseData | 6.2.6.2.7 | Information within Ciphering Key Data Response |
| CipheringSetID | 6.2.6.3.2 | Ciphering Data Set ID |
| CipheringKey | 6.2.6.3.2 | Ciphering Key |
| C0 | 6.2.6.3.2 | First component of the initial ciphering counter |
| ValidityDuration | 6.2.6.3.2 | Validity Duration of the Ciphering Data Set |
| StorageOutcome | 6.2.6.3.3 | Indicates the result of Ciphering Data Set storage |
| DataAvailability | 6.2.6.3.4 | Indicates availability of ciphering key data at an LMF |

Table 6.2.6.1-2 specifies data types re-used by the Nlmf\_Broadcast service based interface protocol from other specifications, including a reference to their respective specifications and when needed, a short description of their use within the Nlmf\_Broadcast service based interface.

Table 6.2.6.1-2: Nlmf\_Broadcast re-used Data Types

|  |  |  |
| --- | --- | --- |
| Data type | Reference | Comments |
| Bytes | 3GPP TS 29.571 [8] | Binary data encoded as a base64 character string |
| DateTime | 3GPP TS 29.571 [8] | Date and Time |
| Uri | 3GPP TS 29.571 [8] | Uniform Resource Identifier |
| SupportedFeatures | 3GPP TS 29.571 [8] | Supported Features |
| RedirectResponse | 3GPP TS 29.571 [8] | Redirect Response |

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