**3GPP TSG- Meeting # *s3i250060***

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** | **0721** | **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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | LI for 5G ProSe Direct Communication - Stage 3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | SA3LI (Ministère Economie et Finances) | | | | | | | | | |
| ***Source to TSG:*** | SA3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***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 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:*** | | Absence of LI for 5G ProSe Direct Communication in Stage 3 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add LI for 5G ProSe Direct Communication in Stage 3 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The LI for 5G ProSe Direct Communication in Stage 3 would still be missing | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 2, 7.X (new), TS33128Payloads.asn | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Schema changes for this CR can be found on the Forge:  Merge Request: <https://forge.3gpp.org/rep/sa3/li/-/merge_requests/311>  Commit Hash: <https://forge.3gpp.org/rep/sa3/li/-/merge_requests/311/diffs?commit_id=8be590d7f6706c925026d3fc46731366764f7178> | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

START OF 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".

[3] 3GPP TS 33.126: "Lawful Interception Requirements".

[4] 3GPP TS 23.502: "Procedures for the 5G System; Stage 2".

[5] 3GPP TS 33.127: "Lawful Interception (LI) Architecture and Functions".

[6] ETSI TS 103 120: "Lawful Interception (LI); Interface for warrant information".

[7] ETSI TS 103 221-1: "Lawful Interception (LI); Internal Network Interfaces; Part 1: X1".

[8] ETSI TS 103 221-2: "Lawful Interception (LI); Internal Network Interfaces; Part 2: X2/X3".

[9] ETSI TS 102 232-1: "Lawful Interception (LI); Handover Interface and Service-Specific Details (SSD) for IP delivery; Part 1: Handover specification for IP delivery".

[10] ETSI TS 102 232-7: "Lawful Interception (LI); Handover Interface and Service-Specific Details (SSD) for IP delivery; Part 7: Service-specific details for Mobile Services".

[11] 3GPP TS 33.501: "Security Architecture and Procedures for the 5G System".

[12] 3GPP TS 33.108: "3G security; Handover interface for Lawful Interception (LI)".

[13] 3GPP TS 24.501: "Non-Access-Stratum (NAS) protocol for 5G System (5GS)".

[14] 3GPP TS 24.007: "Mobile radio interface signalling layer 3; General Aspects".

[15] 3GPP TS 29.244: "Interface between the Control Plane and the User Plane nodes".

[16] 3GPP TS 29.502: "5G System; Session Management Services; Stage 3".

[17] 3GPP TS 29.571: "5G System; Common Data Types for Service Based Interfaces; Stage 3".

[18] 3GPP TS 23.040: "Technical realization of the Short Message Service (SMS)".

[19] 3GPP TS 23.003: "Numbering, addressing and identification ".

[20] OMA-TS-MLP-V3\_5-20181211-C: "Open Mobile Alliance; Mobile Location Protocol, Candidate Version 3.5", <https://www.openmobilealliance.org/release/MLS/V1_4-20181211-C/OMA-TS-MLP-V3_5-20181211-C.pdf>.

[21] 3GPP TS 29.540: "5G System; SMS Services; Stage 3".

[22] 3GPP TS 29.518: "5G System; Access and Mobility Management Services; Stage 3".

[23] 3GPP TS 38.413: "NG Application Protocol (NGAP)".

[24] 3GPP TS 29.572: "Location Management Services; Stage 3".

[25] 3GPP TS 29.503: "5G System; Unified Data Management Services".

[26] IETF RFC 815: "IP datagram reassembly algorithms".

[27] IETF RFC 2460: "Internet Protocol, Version 6 (IPv6) Specification".

[28] IETF RFC 793: "Transmission Control Protocol".

[29] IETF RFC 768: "User Datagram Protocol".

[30] IETF RFC 4340: "Datagram Congestion Control Protocol (DCCP)".

[31] IETF RFC 4960: "Stream Control Transmission Protocol".

[32] IANA (www.iana.org): Assigned Internet Protocol Numbers, "Protocol Numbers".

[33] IETF RFC 6437: "IPv6 Flow Label Specification".

[34] IETF RFC 791: "Internet Protocol".

[35] Open Geospatial Consortium OGC 05-010: "URNs of definitions in ogc namespace".

[36] 3GPP TS 33.107: "3G security; Lawful interception architecture and functions".

[37] 3GPP TS 37.340: "Evolved Universal Radio Access (E-UTRA) and NR-Multi-connectivity; Stage 2".

[38] 3GPP TS 36.413: "S1 Application Protocol (S1AP)".

[39] OMA-TS-MMS\_ENC-V1\_3-20110913-A: "Multimedia Messaging Service Encapsulation Protocol".

[40] 3GPP TS 23.140: "Multimedia Messaging Protocol. Functional Description. Stage 2".

[41] 3GPP TS 38.415: "NG-RAN; PDU Session User Plane Protocol".

[42] 3GPP TS 23.273: "5G System (5GS) Location Services (LCS); Stage 2".

[43] IETF RFC 4566: "SDP: Session Description Protocol".

[44] 3GPP TS 24.193: "Stage 3: Access Traffic Steering, Switching and Splitting (ATSSS)".

[45] 3GPP TS 29.509: "5G System; Authentication Server Services; Stage 3".

[46] 3GPP TS 24.011: "Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface".

[47] 3GPP TS 29.002: "Mobile Application Part (MAP) specification".

[48] 3GPP TS 29.504: "5G System; Unified Data Repository Services; Stage 3".

[49] 3GPP TS 29.505: "5G System; Usage of the Unified Data Repository services for Subscription Data; Stage 3".

[50] 3GPP TS 23.401 "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".

[51] 3GPP TS 24.301 "Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS), Stage 3".

[52] 3GPP TS 23.271 "Functional stage 2 description of Location Services (LCS)".

[53] 3GPP TS 29.172 "Evolved Packet Core (EPC) LCS Protocol (ELP) between the Gateway Mobile Location Centre (GMLC) and the Mobile Management Entity (MME); SLg interface".

[54] 3GPP TS 29.171 "LCS Application Protocol (LCS-AP) between the Mobile Management Entity (MME) and Evolved Serving Mobile Location Centre (E-SMLC); SLs interface".

[55] 3GPP TS 24.379: "Mission Critical Push to Talk (MCPTT) call control; protocol specification".

[56] OMA-TS-PoC-System\_Description-V2\_1-20110802-A: "OMA PoC System Description".

[57] 3GPP TS 29.541: "5G System; Network Exposure (NE) function services for Non-IP Data Delivery (NIDD); Stage 3".

[58] 3GPP TS 29.522: "5G System; Network Exposure Function Northbound APIs; Stage 3".

[59] 3GPP TS 29.338: "Diameter based protocols to support Short Message Service (SMS) capable Mobile Management Entities (MMEs); Stage 3".

[60] 3GPP TS 29.337: "Diameter-based T4 interface for communications with packet data networks and applications".

[61] 3GPP TS 24.250: "Protocol for Reliable Data Service; Stage 3".

[62] 3GPP TS 29.128: "Mobility Management Entity (MME) and Serving GPRS Support Node (SGSN) interfaces for interworking with packet data networks and applications".

[63] 3GPP TS 29.122: "T8 reference point for Northbound APIs".

[64] 3GPP TS 29.598: "5G System; Unstructured Data Storage Services; Stage3".

[65] 3GPP TS 33.535: "Authentication and Key Management for Applications (AKMA) based on 3GPP credentials in the 5G System (5GS)".

[66] IETF RFC 5246: "The Transport Layer Security (TLS) Protocol Version 1.2".

[67] GSMA IR.88: "IR.88 LTE and EPC Roaming Guidelines".

[68] GSMA NG.114 "IMS Profile for Voice, Video and Messaging over 5GS".

[69] IETF RFC 8225: "PASSporT: Personal Assertion Token".

[70] IETF RFC 8224: "Authenticated Identity Management in the Session Initiation Protocol (SIP)".

[71] IETF RFC 8588: "Personal Assertion Token (PaSSporT) Extension for Signature-based Handling of Asserted information using toKENs (SHAKEN)".

[72] 3GPP TS 24.196: "Enhanced Calling Name (eCNAM)".

[73] IETF draft-ietf-stir-passport-rcd-26: "PASSporT Extension for Rich Call Data".

NOTE: The above document cannot be formally referenced until it is published as an RFC.

[74] 3GPP TS 24.229: "IP multimedia call control protocol based on Session Initiation Protocol (SIP)and Session Description Protocol (SDP); Stage 3".

[75] IANA Session Initiation Protocol (SIP) Parameters: <https://www.iana.org/assignments/sip-parameters/sip-parameters.xhtml>

[76] IETF RFC 8946: "Personal Assertion Token (PASSporT) Extension for Diverted Calls".

[77] 3GPP TS 23.204: "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Support of Short Message Service (SMS) over generic 3GPP Internet Protocol (IP) access; Stage 2".

[78] GSMA RCC.07: "Rich Communication Suite – Advanced Communications Services and Client Specification".

[79] IETF RFC 4975: "The Message Session Relay Protocol (MSRP)".

[80] IETF RFC 3862: "Common Presence and Instant Messaging (CPIM): Message Format".

[81] IETF RFC 5438: "Instant Message Disposition Notification (IMDN)".

[82] OMA-TS-CPM\_System\_Description-V2\_2-20170926-C: "OMA Converged IP Messaging System Description".

[83] Void.

[84] 3GPP TS 36.455: "Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol A (LPPa) ".

[85] 3GPP TS 37.355: "LTE Positioning Protocol (LPP)".

[86] 3GPP TS 38.455: "NG-RAN; NR Positioning Protocol A (NRPPa)".

[87] 3GPP TS 29.274: "3GPP Evolved Packet System (EPS); Evolved General Packet Radio Service (GPRS) Tunnelling Protocol for Control plane (GTPv2-C); Stage 3".

[88] 3GPP TS 29.513: "5G System; Policy and Charging Control signalling flows and QoS parameter mapping".

[89] 3GPP TS 29.512: "5G System; Session Management Policy Control Service; Stage 3".

[90] 3GPP TS 29.508: "5G System; Session Management Event Exposure Service; Stage 3".

[91] 3GPP TS 29.514: "5G System; Policy Authorization Service; Stage 3".

[92] 3GPP TS 29.214: "Policy and Charging Control over Rx reference point".

[93] 3GPP TS 24.558: "Enabling Edge Applications; Protocol specification".

[94] 3GPP TS 29.558: "Enabling Edge Applications; Application Programming Interface (API) specification".

[95] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core network protocols; Stage 3".

[96] 3GPP TS 29.551: "5G System; Packet Flow Description Management Service; Stage 3".

[97] ETSI TS 103 280: "Lawful Interception (LI); Dictionary for common parameters".

[98] 3GPP TS 26.512: "5G Media Streaming (5GMS); Protocols".

[99] 3GPP TS 26.247: "Transparent end-to-end Packet-switched Streaming Service (PSS); Progressive Download and Dynamic Adaptive Streaming over HTTP (3GP-DASH)".

[100] 3GPP TS 29.563: "5G System; Home Subscriber Server (HSS) services for interworking with Unified Data Management (UDM); Stage 3".

[101] 3GPP TS 29.562: "5G System; Home Subscriber Server (HSS) Services; Stage 3".

[102] 3GPP TS 24.341 "Support of SMS over IP networks, Stage 3".

[103] 3GPP TS 38.473 "NG-RAN;F1 application protocol (F1AP)".

[104] 3GPP TS 23.032: "Universal Geographical Area Description (GAD)".

[105] ITU-T Recommendation Q.763 (1999): "Specifications of Signalling System No.7; Formats and codes".

[106] 3GPP TS 29.272: "Mobility Management Entity (MME) and Serving GPRS Support Node (SGSN) related interfaces based on Diameter protocol".

[107] IETF RFC 6442: "Location Conveyance for the Session Initiation Protocol".

[108] Void.

[109] OMA-TS-CPM\_Conv\_Function: "OMA CPM Conversation Functions".

[110] IETF RFC 2045: "Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies".

[111] 3GPP TS 32.299: " Telecommunication management; Charging management; Diameter charging applications".

[112] 3GPP TS 32.423: "Telecommunication management; Subscriber and equipment trace; Trace data definition and management".

[113] 3GPP TS 38.414: "NG-RAN; NG data transport".

[114] IETF RFC 2045: "Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies".

[115] IETF RFC 5322: "Internet Message Format".

[116] IETF RFC 4975: "The Message Session Relay Protocol (MSRP)".

[117] IETF RFC 6901: "JavaScript Object Notation (JSON) Pointer".

[118] IETF RFC 3261: "SIP: Session Initiation Protocol".

[119] W3C Recommendation: "XML Path Language (XPath)".

[120] IETF RFC 2046: "Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types".

[121] 3GPP TR 33.928: "ADMF Logic for Provisioning Lawful Interception (LI) ".

[122] 3GPP TS 23.316: "Wireless and wireline convergence access support for the 5G System".

[123] 3GPP TS 23.038: "Alphabets and language-specific information".

[124] ITU-T Recommendation X.680 (2021): "Information technology—Abstract Syntax Notation One (ASN.1): Specification of basic notation".

[125] IETF RFC 4282: "The Network Access Identifier".

[126] IETF RFC 7042: "IANA Considerations and IETF Protocol and Documentation Usage for IEEE 802 Parameters".

[127] IEEE "Guidelines for Use of Extended Unique Identifier (EUI), Organizationally Unique Identifier (OUI), and Company ID (CID)", <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/tutorials/eui.pdf>

[128] 3GPP TS 24.502: "Access to the 3GPP 5G Core Network (5GCN) via Non-3GPP Access Networks (N3AN)".

[129] 3GPP TS 33.503: "Security aspects of Proximity based Services (ProSe) in the 5G System (5GS)".

[130] 3GPP TS 29.228: "IP Multimedia (IM) Subsystem Cx and Dx Interfaces; Signalling flows and message contents".

[131] 3GPP TS 24.174: "Support of multi-device and multi-identity in the IP Multimedia Subsystem (IMS)".

[132] OMA-TS-CPM\_Message\_Storage: "OMA CPM Message Storage".

[133] 3GPP TS 29.520: "Network Data Analytics Services".

[134] 3GPP2 C.S0015-A: "Short Message Service (SMS) for Wideband Spread Spectrum Systems".

[135] ETSI TS 102 232-5: "Lawful Interception (LI); Handover Interface and Service-Specific Details (SSD) for IP delivery; Part 5: Service-specific details for IP Multimedia services".

[136] ETSI TS 102 232-3: "Lawful Interception (LI); Handover Interface and Service-Specific Details (SSD) for IP delivery; Part 3: Service-specific details for internet access services".

[137] 3GPP TS 29.176: "IP Multimedia Subsystem (IMS); Media Function (MF); Services Stage 3".

[138] 3GPP TS 29.175: "IP Multimedia Subsystem (IMS) Application Server (AS) Services Stage 3".

[139] 3GPP TS 26.114: "IP Multimedia Subsystem (IMS); Multimedia Telephony; Media handling and interaction".

[X] 3GPP TS 24.554: " Proximity-services (ProSe) in 5G System (5GS) protocol aspects; Stage 3".

[Y] 3GPP TS 29.555: "5G Direct Discovery Name Management Services; Stage 3".

END OF FIRST CHANGE

START OF SECOND CHANGE

## 7.X LI at 5G DDNMF

### 7.X.1 Provisioning over LI\_X1

#### 7.X.1.1 Provisioning of IRI-POI in 5G DDNMF

The IRI-POI present in the DDNMF is provisioned over LI\_X1 by the LIPF using the X1 protocol as described in clause 5.2.2.

The POI in the 5G DDNMF shall support the target identifier types given in table 7.X.1.1-1.

Table 7.X.1.1-1: TargetIdentifier types for data analytics

|  |  |  |  |
| --- | --- | --- | --- |
| Identifier | Owner | ETSI TS 103 221-1 [7] TargetIdentifier type | Definition |
| sUPIIMSI | ETSI | SUPIIMSI | See ETSI TS 103 221-1 [7] |
| sUPINAI | ETSI | SUPINAI | See ETSI TS 103 221-1 [7] |
| gPSIMSISDN | ETSI | GPSIMSISDN | See ETSI TS 103 221-1 [7] |
| gPSINAI | ETSI | GPSINAI | See ETSI TS 103 221-1 [7] |

Table 7.X.1.1-2 shows the minimum details of the LI\_X1 ActivateTask message used for provisioning the IRI-POI in the 5G DDNMF.

If the IRI-POI in the 5G DDNMF receives an ActivateTask message and the ListOfServiceTypes parameter contains a ServiceType that is not supported, the IRI-POI in the 5G DDNMF shall reject the task with an appropriate error as described in ETSI TS 103 221-1 [7] clause 6.2.1.2.

Table 7.X.1.1-2: ActivateTask message for the IRI-POI in the 5G DDNMF

|  |  |  |
| --- | --- | --- |
| ETSI TS 103 221-1 [7] field name | Description | M/C/O |
| xID | XID assigned by LIPF. | M |
| targetIdentifiers | One of the target identifiers listed in the paragraph above. | M |
| deliveryType | Set to “X2Only”. | M |
| listOfDIDs | Delivery endpoints for LI\_X2 for the IRI-POI in the 5G DDNMF. These delivery endpoints are configured using the CreateDestination message as described in ETSI TS 103 221-1 [7] clause 6.3.1 prior to the task activation. | M |

#### 7.X.1.2 Provisioning of the MDF2

The MDF2 listed as the delivery endpoint over LI\_X2 for xIRI generated by 5G DDNMF shall be provisioned over LI\_X1 by the LIPF.

The target identities listed in clause 7.X.1.1 shall apply for the provisioning of MDF2.

Table 7.X.1.2-1and table 7.X.1.2-2 show the minimum details of the LI\_X1 ActivateTask message used for provisioning the MDF2.Table 7.X.1.2-1: ActivateTask message for MDF2

|  |  |  |
| --- | --- | --- |
| ETSI TS 103 221-1 [7] field name | Description | M/C/O |
| xID | XID assigned by LIPF. | M |
| targetIdentifiers | One or more of the target identifiers listed in table 7.X.1.1-1. | M |
| deliveryType | Set to “X2Only”. (Ignored by the MDF2). | M |
| listOfDIDs | Delivery endpoints of LI\_HI2. These delivery endpoints shall be configured using the *CreateDestination* message as described in ETSI TS 103 221-1 [7] clause 6.3.1 prior to first use. | M |
| listOfMediationDetails | Sequence of Mediation Details (see table 7.X.1.2-2). | M |

Table 7.X.1.2-2: Mediation Details for MDF2

|  |  |  |
| --- | --- | --- |
| ETSI TS 103 221-1 [7] field name | Description | M/C/O |
| lIID | Lawful Interception ID associated with the task. | M |
| deliveryType | Set to “HI2Only”. | M |
| listOfDIDs | Details of where to send the IRI for this LIID. Shall be included if deviation from the ListofDIDs in the ActivateTask message is necessary. If included, the ListOfDIDs in the Mediation Details shall be used instead of any delivery destinations authorised by the ListOfDIDs field in the ActivateTask message. | C |
| serviceScoping | Service type set to “Data”. Other fields are dependent on the warrant. | M |

### 7.X.2 Generation of xIRI over LI\_X2

#### 7.X.2.1 General

The IRI-POI present in the 5G DDNMF in the HPLMN shall send the xIRIs over LI\_X2 for the following event listed in TS 33.127 [5] clause 7.X.4:

- ProSe UNI direct discovery.

The IRI-POI present in the 5G DDNMF in the HPLMN/VPLMN/local PLMN shall send the xIRIs over LI\_X2 for the following event listed in TS 33.127 [5] clause 7.X.4:

- ProSe NNI direct discovery.

The details of these xIRIs are described in the following clauses.

#### 7.X.2.2 ProSe UNI direct discovery

The IRI-POI in the 5G DDNMF in the HPLMN shall generate an xIRI containing a FiveGUDDNMFProSeUNIDirectDiscovery record when the IRI-POI present in the 5G DDNMF in the HPLMN detects that the 5G DDNMF in the HPLMN returns a response to a direct discovery request received from a target UE. The IRI-POI present in the 5G DDNMF in the HPLMN shall generate the xIRI for the following events:

- 5G DDNMF in HPLMN exchanges direct discovery messages over PC3a with the target UE to authorize the target UE for discovery services (see TS 24.554 [X] clauses 6.2.2. to 6.2.12).

- 5G DDNMF in HPLMN receives a PROSE\_USAGE\_INFORMATION\_REPORT\_LIST message from a target UE providing a set of usage information reports indicating the amount of data transmitted and received during 5G ProSe direct communication (see TS 24.554 [X] clause 7.6.2.1).

Table 7.X.2.2-1: Payload for FiveGDDNMFProSeUNIDirectDiscovery record

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| sUPI | SUPI | 1 | Identifies the SUPI of the target UE. | M |
| gPSI | GPSI | 0..1 | Identifies the GPSI of the target UE. | C |
| proSeDirectDiscoveryMessage | FiveGProseDiscoveryMessage | 0..1 | Contains the ProSe direct discovery message encoded as a "prose-discovery-message" XML structure according to TS 24.554 [X] clause 10.5.3. The XMLType.namespace for this parameter shall be set to "urn:3GPP:ns:5GProSe:Discovery:2021". | C |
| fiveGProseUsageInformationReportMessage | FiveGProseUsageInformationReportMessage | 0..1 | Contains the ProSe usage information report message encoded as a "prose-pC3ach-message" XML structure according to TS 24.554 [X] clause 10.7.3. The XMLType.namespace for this parameter shall be set to "urn:3GPP:ns:5GProSe:PC3ach:2022". | C |
| NOTE : Either FiveGProseDiscoveryMessage or FiveGProseUsageInformationReportMessage field shall be present. | | | | |

#### 7.X.2.3 ProSe NNI direct discovery

The IRI-POI in the 5G DDNMF in the HPLMN/VPLMN/local PLMN shall generate an xIRI containing an FiveGDDNMFProSeNNIDirectDiscovery record when the IRI-POI present in the 5G DDNMF in the HPLMN/VPLMN/local PLMN detect that the 5G DDNMF in the HPLMN interacts with the 5G DDNMF in the VPLMN or local PLMN for direct discovery authorizations for a target UE in the VPLMN or local PLMN. The IRI-POI present in the 5G DDNMF in the HPLMN/VPLMN/local PLMN shall generate the xIRI for the following event:

- 5G DDNMF in the HPLMN exchanges any request or response with 5G DDNMF in VPLMN or local PLMN over the N5g-ddnmf\_Discovery API (see TS 29.555 [Y] clauses 5.2.2.2 to 5.2.2.8).

Table 7.X.2.3-1: Payload for FiveGDDNMFProSeNNIDirectDiscovery record

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field name | Type | Cardinality | Description | M/C/O |
| sUPI | SUPI | 0..1 | Identifies the SUPI of the target UE. | C |
| gPSI | GPSI | 0..1 | Identifies the GPSI of the target UE. | C |
| fiveGDDNMFProSeDirectDiscoveryMessage | FiveGDDNMFProSeDirectDiscoveryMessage | 0..1 | Contains the request and the response of the announce authorize procedure. Encoded according to TS 29.555 [Y] table 6.1.6.2.2-1. The SBIReference for this parameter shall be populated with 'TS29555\_N5g-ddnmf\_Discovery.yaml' as specified in TS 29.555 [Y] clause A2. | C |
| NOTE: At least one of the SUPI or GPSI fields shall be present. | | | | |

### 7.X.3 Generation of IRI over LI\_HI2

When an xIRI is received over LI\_X2 from the IRI-POI in the 5G DDNMF, the MDF2 shall send the IRI message over LI\_HI2 without undue delay. The IRI message shall contain a copy of the relevant record received from LI\_X2. The record may be enriched by other information available at the MDF (e.g. additional location information).

The time of observation of the event shall given according to ETSI TS 102 232-1 [9] clause 5.2.6..

The IRIPayloadIRIType parameter shall be included and coded according to table 7.14.2.11-1 (see ETSI TS 102 232-1 [9] clause 5.2.10).

Table 7.X.3-1: IRI type for IRI messages

|  |  |
| --- | --- |
| Record type | IRI Type |
| FiveGDDNMFProSeUNIDirectFDiscovery | REPORT |
| FiveGDDNMFProSeNNIDirectFDiscovery | REPORT |

The *@LI-PS-PDU.[IRIPayload.iRIType](mailto:IRIPayload@LI-PS-PDU.payload.iRIPayloadSequence.iRIType)*parameter shall be included and coded according to table 7.14.2.11-1 (see ETSI TS 102 232-1 [9] clause 5.2.10).

END OF SECOND CHANGE

START OF CHANGE 1

---a/33128/r19/TS33128Payloads.asn  
+++b/33128/r19/TS33128Payloads.asn

@@ -304,7 +304,11 @@ XIRIEvent ::= CHOICE

304 304 iMSHSSSubscriberRecordChange [174] IMSHSSSubscriberRecordChange,

305 305

306 306 -- AMF events, see clause 6.2.2.2.14, continued from tag 147

307 - aMFUEContextUpdate [175] AMFUEContextUpdate

307 + aMFUEContextUpdate [175] AMFUEContextUpdate,

308 +

309 + -- 5G ProSe Direct Communication events, see clause 7.X.2

310 + fiveGDDNMFProSeUNIDirectDiscovery [176] FiveGDDNMFProSeUNIDirectDiscovery,

311 + fiveGDDNMFProSeNNIDirectDiscovery [177] FiveGDDNMFProSeNNIDirectDiscovery

308 312 }

309 313

310 314 -- ==============

@@ -592,7 +596,11 @@ IRIEvent ::= CHOICE

592 596 iMSHSSSubscriberRecordChange [174] IMSHSSSubscriberRecordChange,

593 597

594 598 -- AMF events, see clause 6.2.2.3, continued from tag 147

595 - aMFUEContextUpdate [175] AMFUEContextUpdate

599 + aMFUEContextUpdate [175] AMFUEContextUpdate,

600 +

601 + -- 5G ProSe Direct Communication events, see clause 7.X.3

602 + fiveGDDNMFProSeUNIDirectDiscovery [176] FiveGDDNMFProSeUNIDirectDiscovery,

603 + fiveGDDNMFProSeNNIDirectDiscovery [177] FiveGDDNMFProSeNNIDirectDiscovery

596 604 }

597 605

598 606 IRITargetIdentifier ::= SEQUENCE

@@ -5741,6 +5749,36 @@ NWDAFEvent ::= ENUMERATED

5741 5749 pDUSessionTraffic(7)

5742 5750 }

5743 5751

5752 + -- =====================

5753 + -- 5G DDNNMF definitions

5754 + -- =====================

5755 +

5756 + -- See clause 7.X.2.2 for details of this structure

5757 + FiveGDDNMFProSeUNIDirectDiscovery ::= SEQUENCE

5758 + {

5759 + sUPI [1] SUPI,

5760 + gPSI [2] GPSI OPTIONAL,

5761 + fiveGProSeMessage [3] FiveGProSeMessage

5762 + }

5763 +

5764 + -- See clause 7.X.2.3 for details of this structure

5765 + FiveGDDNMFProSeNNIDirectDiscovery ::= SEQUENCE

5766 + {

5767 + sUPI [1] SUPI OPTIONAL,

5768 + gPSI [2] GPSI OPTIONAL,

5769 + fiveGDDNMFProSeDirectDiscoveryMessage [3] SBIType

5770 + }

5771 +

5772 + -- ====================

5773 + -- 5G DDNNMF parameters

5774 + -- ====================

5775 +

5776 + FiveGProSeMessage ::= CHOICE

5777 + {

5778 + fiveGProseDirectDiscoveryMessage [1] XMLType,

5779 + fiveGProseUsageInformationReportMessage [2] XMLType

5780 + }

5781 +

5744 5782 -- ===================

5745 5783 -- 5G LALS definitions

5746 5784 -- ===================

END OF CHANGE 1

END OF LAST CHANGE