**3GPP TSG- Meeting # *s3i240751***

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** |  | **rev** | **1** | **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 | **\*** |

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| ***Title:*** | LI for 5G LAN parameter provisionning (VN Group)(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:*** | | Lack of VN Group information related to a specific target by NEF PoI | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add 5G LAN Parameter provisioning (VN Group) and related events for an LI system | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Regulatory issues | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.7.1.1; 7.7.1.2; 7.7.X | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **\*** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **\*** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **\*** | 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/277>  Commit Hash: [https://forge.3gpp.org/rep/sa3/li/-/commit/f49d55afc24a6472fbf7b039f034c70e19e4504a](https://forge.3gpp.org/rep/sa3/li/-/commit/ae7eb8577724aab3d6bd78fa228727234bba90bc) | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | s3i240651 | | | | | | | | |

START OF FIRST CHANGE

#### 7.7.1.1 General

For NIDD using NEF:

- If delivery type for the warrant is "IRI and CC", then the IRI-POI and the CC-POI in the NEF, the MDF2 and MDF3 shall be provisioned.

- If delivery type for the warrant is "IRI", then the IRI-POI in the NEF and the MDF2 shall be provisioned.

- Delivery type "CC" is not applicable to the warrant.

For device triggering, MSISDN-less MO SMS, Parameter Provisioning and 5G LAN Parameter Provisioning:

- the delivery type for the warrant is "IRI"; the IRI-POI in the NEF and the MDF2 shall be provisioned.

END OF FIRST CHANGE

START OF SECOND CHANGE

#### 7.7.1.2 Provisioning of the IRI-POI and CC-POI in NEF

The IRI-POI and CC-POI present in the NEF are provisioned over LI\_X1 by the LIPF using the X1 protocol as described in clause 5.2.2.

The POI in the NEF shall support the following target identifier formats in the ETSI TS 103 221-1 [7] messages (or equivalent if ETSI TS 103 221-1 [7] is not used):

- SUPIIMSI.

- SUPINAI.

- GPSIMSISDN.

- GPSINAI.

NOTE: For Parameter Provisioning and 5G LAN Parameter Provisioning, only GPSIMSISDN and GPSINAI are applicable.

END OF SECOND CHANGE

START OF THIRD CHANGE

### 7.7.X LI for 5G LAN parameter provisioning

#### 7.7.X.1 Generation of xIRI LI\_X2 at IRI-POI in NEF over LI\_X2

##### 7.7.X.1.1 General

The IRI-POI present in the NEF shall send the xIRIs over LI\_X2 for each of the events listed in TS 33.127 [5] clause 7.9.X.4, the details of which are described in the following clauses.

##### 7.7.X.1.2 5G VN group creation

The IRI-POI in the NEF shall generate an xIRI containing a NEF5GVNGroupCreation record when the IRI-POI present in the NEF detects that an AF has created a 5G Virtual Network (VN) group the target UE belongs to.

Accordingly, the IRI-POI in the NEF generates the xIRI when any of the following event is detected:

- NEF sends a Nnef\_ParameterProvision\_Create Response to the AF to acknowledge the reception of Nnef\_ParameterProvision\_Create Request which contains the GPSIs of the group members including the GPSI of the target UE (see TS 23.502 [4] clause 5.2.6.4.3 and TS 29.522 [58] clause 5.7.1.2).

Table 7.7.X.1.2-1: NEF5GVNGroupCreation record

|  |  |  |
| --- | --- | --- |
| Field name | Value | M/C/O |
| aFID | Identity of the AF creating the 5G VN group. | M |
| gPSI | GPSI of the target UE, member of the created 5G VN group. | M |
| fiveGLanParametersProvision | Shall include an 5GLanParametersProvision resource according to TS 29.522 [58] clause A.5. The SBIReference for this parameter shall be populated with ‘TS29522\_5GLANParameterProvision.yaml#/components/schemas/5GLanParametersProvision'. | M |

##### 7.7.X.1.3 5G VN group update

The IRI-POI in the NEF shall generate an xIRI containing a NEF5GVNGroupUpdate record when the IRI-POI present in the NEF detects that an AF has updated a 5G VN group the target UE belongs to.

Accordingly, the IRI-POI in the NEF generates the xIRI when any of the following events is detected:

- NEF sends a Nnef\_ParameterProvision\_Update Response to the AF to acknowledge the reception of Nnef\_ParameterProvision\_Update Request (see TS 23.502 [4] clause 5.2.6.4.2 and TS 29.522 [58] clause 5.7.1.3).with the following cases :

- The list of GPSIs of the group members is updated and now includes the GPSI of the target UE.

- The list of GPSIs of the group members that was including the GPSI of the target UE is updated, and after the update excludes it.

- The list of GPSIs of the group members is not updated and already includes the GPSI of the target UE.

Table 7.7.X.1.3-1: NEF5GVNGroupUpdate record

|  |  |  |
| --- | --- | --- |
| Field name | Value | M/C/O |
| aFID | The AF creating the 5G VN group. | M |
| gPSI | GPSI of the target UE. | M |
| fiveGLanParametersProvision | Includes an 5GLanParametersProvision resource according to TS 29.522 [58] clause A.5 for a full update/replace. The SBIReference for this parameter shall be populated with ‘TS29522\_5GLANParameterProvision.yaml#/components/schemas/5GLanParametersProvision'. | C |
| fiveGLanParametersProvisionPatch | Includes an 5GLanParametersProvisionPatch resource according to TS 29.522 [58] clause A.5 for a partial update. The SBIReference for this parameter shall be populated with ‘TS29522\_5GLANParameterProvision.yaml#/components/schemas/5GLanParametersProvisionPatch'. | C |
| NOTE 1: Either fiveGLanParametersProvision or fiveGLanParametersProvisionPatch shall be supplied. | | |

##### 7.7.X.1.4 5G VN group deletion

The IRI-POI in the NEF shall generate an xIRI containing a NEF5GVNGroupDeletion record when the IRI-POI present in the NEF detects that an AF has deleted a 5G VN group the target UE belongs to.

Accordingly, the IRI-POI in the NEF generates the xIRI when any of the following events is detected:

- NEF sends a Nnef\_ParameterProvision\_Delete Response to the AF to acknowledge the reception of Nnef\_ParameterProvision\_Delete Request with GPSIs of the group members including the GPSI of the target UE (see TS 23.502 [4] clause 5.2.6.4.4 and TS 29.522 [58] clause 5.7.1.3).

Table 7.7.X.1.4-1: NEF5GVNGroupDeletion record

|  |  |  |
| --- | --- | --- |
| Field name | Value | M/C/O |
| aFID | Identity of the AF deleting the 5G VN group. | M |
| gPSI | GPSI of the target UE, member of the deleted 5G VN group. | M |
| externalGroupID | Identity of the 5G VN Group deleted by the AF. | M |

##### 7.7.X.1.5 5G VN group query

The IRI-POI in the NEF shall generate an xIRI containing a NEF5GVNGroupQuery record when the IRI-POI present in the NEF detects that an AF has queried a 5G VN group the target UE belongs it.

Accordingly, the IRI-POI in the NEF generates the xIRI when any of the following events is detected:

- NEF sends a Nnef\_ParameterProvision\_Get Response to the AF to acknowledge the reception of Nnef\_ParameterProvision\_Get Request with GPSIs of the group members including the GPSI of the target UE (see TS 23.502 [4] clause 5.2.6.4.5 and TS 29.522 [58] clause 5.7.1.2).

Table 7.7.X.1.5-1: NEF5GVNGroupQuery record

|  |  |  |
| --- | --- | --- |
| Field name | Value | M/C/O |
| aFID | The identity of the AF querying the 5G VN group. | M |
| gPSI | GPSI of the target UE as member of the queried 5G VN group. | M |
| fiveGLanParametersProvision | Shall includes an 5GLanParametersProvision resource according to TS 29.522 [58] clause A.5. The SBIReference for this parameter shall be populated with ‘TS29522\_5GLANParameterProvision.yaml#/components/schemas/5GLanParametersProvision'. | M |

#### 7.7.X.2 Generation of IRI over LI\_HI2

When an xIRI is received over LI\_X2 from the IRI-POI in the NEF, 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 timestamp field of the ETSI TS 102 232-1 [9] PSHeader structure shall be set to the time at which the NEF event was observed (i.e. the timestamp field of the xIRI).

The IRI type parameter (see ETSI TS 102 232-1 [9] clause 5.2.10) shall be included and coded according to table 7.7.3-5.

Table 7.7.X.2-1: IRI type for IRI messages

|  |  |
| --- | --- |
| Record type | IRI Type |
| NEF5GVNGroupCreation | REPORT |
| NEF5GVNGroupUpdate | REPORT |
| NEF5GVNGroupDeletion | REPORT |
| NEF5GVNGroupQuery | REPORT |

END OF THIRD CHANGE

START OF ATTACHEMENT CHANGE

START OF CHANGE 1

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

@@ -278,7 +278,13 @@ XIRIEvent ::= CHOICE

278 278 uDMProSeTargetAuthentication [160] UDMProSeTargetAuthentication,

279 279

280 280 -- IP Packet Report, see clause 6.2.3.9.5

281 - iPIRIPacketReport [161] IPAccessPDU.IPIRIPacketReport

281 + iPIRIPacketReport [161] IPAccessPDU.IPIRIPacketReport,

282 +

283 + -- NEF events, see clause 7.7.X.1

284 + nEF5GVNGroupCreation [162] NEF5GVNGroupCreation,

285 + nEF5GVNGroupUpdate [163] NEF5GVNGroupUpdate,

286 + nEF5GVNGroupDeletion [164] NEF5GVNGroupDeletion,

287 + nEF5GVNGroupQuery [165] NEF5GVNGroupQuery

282 288 }

283 289

284 290 -- ==============

@@ -538,9 +544,15 @@ IRIEvent ::= CHOICE

538 544

539 545 -- UDM events, see clause 7.2.2.3, continued from tag 124

540 546 uDMProSeTargetIdentifierDeconcealment [159] UDMProSeTargetIdentifierDeconcealment,

541 - uDMProSeTargetAuthentication [160] UDMProSeTargetAuthentication

547 + uDMProSeTargetAuthentication [160] UDMProSeTargetAuthentication,

542 548

543 549 -- Tag 161 is reserved because there is no equivalent IP Packet Report in IRIEvent.

550 +

551 + -- NEF events, see clause 7.7.X.2

552 + nEF5GVNGroupCreation [162] NEF5GVNGroupCreation,

553 + nEF5GVNGroupUpdate [163] NEF5GVNGroupUpdate,

554 + nEF5GVNGroupDeletion [164] NEF5GVNGroupDeletion,

555 + nEF5GVNGroupQuery [165] NEF5GVNGroupQuery

544 556 }

545 557

546 558 IRITargetIdentifier ::= SEQUENCE

@@ -818,6 +830,39 @@ NEFAFSessionWithQoSNotification ::= SEQUENCE

818 830 aForASSessionWithQoSResponseCode [4] AForASSessionWithQoSResponseCode

819 831 }

820 832

833 + -- See clause 7.7.X.1.2 for details of this structure

834 + NEF5GVNGroupCreation ::= SEQUENCE

835 + {

836 + aFID [1] AFID,

837 + gPSI [2] GPSI,

838 + fiveGLanParametersProvision [3] SBIType

839 + }

840 +

841 + -- See clause 7.7.X.1.3 for details of this structure

842 + NEF5GVNGroupUpdate ::= SEQUENCE

843 + {

844 + aFID [1] AFID,

845 + gPSI [2] GPSI,

846 + fiveGLanParametersProvision [3] SBIType OPTIONAL,

847 + fiveGLanParametersProvisionPatch [4] SBIType OPTIONAL

848 + }

849 +

850 + -- See clause 7.7.X.1.4 for details of this structure

851 + NEF5GVNGroupDeletion ::= SEQUENCE

852 + {

853 + aFID [1] AFID,

854 + gPSI [2] GPSI,

855 + externalGroupID [3] OCTET STRING

856 + }

857 +

858 + -- See clause 7.7.X.1.5 for details of this structure

859 + NEF5GVNGroupQuery ::= SEQUENCE

860 + {

861 + aFID [1] AFID,

862 + gPSI [2] GPSI,

863 + fiveGLanParametersProvision [3] SBIType

864 + }

865 +

821 866 -- ==========================

822 867 -- Common SCEF/NEF parameters

823 868 -- ==========================

END OF CHANGE 1

END OF LAST CHANGE