**3GPP SA3LI#90 S3i230426**

**Prague; June 27-30, 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **33.928** | **CR** | **0006** | **rev** | **1** | **Current version:** | **18.0.0** |  |
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| *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:*** | More on LIPF logic diagrams: Logic of LI privisioning for additional services with Data | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | SA3-LI (Nokia, Nokia Shanghai Bell, Ministére de l’économie et finances) | | | | | | | | | |
| ***Source to TSG:*** | SA3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LI18 | | | | |  | ***Date:*** | | | 2023-06-29 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | ***B*** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
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| ***Reason for change:*** | | More services were introduced to the TS 33.128 after the initial set of LIPF logic diagrams were created. The TR 33.928 should accommodate those aspects as well. This CR expands the LIPF logic diagrams of 5GC EPC Data to include a branch to add LI provisioning for additional services which, at this time, would include LI for NIDD and other NEF/SECF based services (referred to as LI for NIDD), LI for AKMA, LI for ECS, LI for 5G Media Streaming. | | | | | | | | |
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| ***Summary of change:*** | | LIPF logic diagrams for 5GC Data and EPC Data are expanded to include LI provisioning for additional Data services. The introduction for LI for Additional Data Services in 5GC and EPC are also shown. | | | | | | | | |
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| ***Consequences if not approved:*** | | The LIPF logic will not be aligned to the TS 33.128. | | | | | | | | |
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| ***Clauses affected:*** | | 5.4.3.1, 5.4.4.1 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ...S3i230427, S3i230428 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | S3i230372 | | | | | | | | |

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

#### 5.4.3.1 The flow-chart

Figure 5.4.3.1-1 shows the LIPF logic in provisioning the LI functions for the 5GC for the service type of Data.



Figure 5.4.3.1-1: LIPF logic for the service type Data in 5GC

For the delivery type of IRI + CC, the IRI-POIs and the CC-TFs are provisioned. For the delivery type of IRI, the IRI-POIs and the IRI-TFs are provisioned. For the delivery type of CC, the CC-TFs are provisioned.

Figure 5.4.3.1-2 shows the LIPF logic in provisioning the LI functions for additional data services in 5GC.



Figure 5.4.3.1-2: LIPF logic for the additional data services in 5GC

The details of LI provisioning for AKMA, NEF based services , ECS and 5G Media Streaming are illustrated in clause 5.4.3.x.

NOTE: Even though the figure 5.4.3.1-2 shows that LI provisioning for AKMA is part of LI provisioning for the service type Data, AKMA may have to be intercepted independently in order to support other services. 5.4.4.1 The flow-chart

Figure 5.4.4.1-1 shows the LIPF logic in determining the host NFs in EPC that have the LI functions for the service type of Data.





Figure 5.4.4.1-1: LIPF logic for the service type Data in EPC

For the delivery type of IRI + CC, the IRI-POIs, the CC-TFs and the CC-POIs (when EPC is deployed without CUPS) are provisioned. For the delivery type of IRI, the IRI-POIs and the IRI-TFs (when EPC is deployed with CUPS) are provisioned. For the delivery type of CC, the CC-TFs and the CC-POIs (when EPC is deployed without CUPS) are provisioned.

For the LI within the EPC, the CSP may deploy either an SGW-based interception or a PGW-based interception. The LIPF logic in supporting the two deployment options is illustrated in figure 5.4.4.1-2.



Figure 5.4.4.1-2: Two deployment options in EPC

The LIPF includes a parameter while provisioning the SGW/SGW-C and PGW/PGW-C.

To PGW/PGW-C, with the SGW based deployment option:

- Provide LI functions only for the targets that are outbound roaming with HR.

SGW/SGW-C, with the PGW based deployment option:

- Provide LI functions only for the targets that are inbound roaming with HR.

The above parameter is needed to avoid both SGW/SGW-C and PGW/PGW-C end up performing the interceptions for the same packet data session.

Figure 5.4.4.1-3 shows the LIPF logic in provisioning the LI functions for additional data services in EPC.



Figure 5.4.4.1-3: LIPF logic for the additional data services in EPC

The details of LI provisioning for SCEF based services are illustrated in clause 5.4.4.x.

### \*\* End of all change \*\*