**3GPP TSG-SA WG6 Meeting #62 S6-243185**

**Maastricht, Netherlands, 19th – 23rd August 2024 (revision of S6-243xxx)**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **23.554** | **CR** | **0215** | **rev** | **-** | **Current version:** | **19.2.0** |  |
|  |
| *For* ***[HE](http://www.3gpp.org/3G_Specs/CRs.htm%22%20%5Cl%20%22_blank)******[LP](http://www.3gpp.org/3G_Specs/CRs.htm%22%20%5Cl%20%22_blank)*** *on using this form: comprehensive instructions can be found at <http://www.3gpp.org/Change-Requests>.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network | **x** |

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| ***Title:***  | utilizing SEALDD to fulfill the delay requirement in 3GPP TS 22.262 |
|  |  |
| ***Source to WG:*** | China Mobile |
| ***Source to TSG:*** | SA6 |
|  |  |
| ***Work item code:*** | 5GMARCH\_Ph3 |  | ***Date:*** | 2024-08-08 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 canbe 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:*** | This CR is proposed to fulfill the delay requirement specified in [R-5.1.2-001] of 3GPP TS 22.262. This requirement has not been fulfilled yet. This issue is also listed in the objective 1 of 5GMARCH\_Ph3 WID.The data transmission quality measurement and data transmission quality guarantee procedure specified in SEALDD are considered as the solution for solving the latency guarantee issue. Therefore, the EN in clause 11.2 which uses the edge deployment to solve the latency guarantee issue can be removed. |
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| ***Summary of change:*** | This CR is proposed to utilizing SEALDD to fulfill the delay requirement in 3GPP TS 22.262 |
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| ***Consequences if not approved:*** | Requirement specified in [R-5.1.2-001] of 3GPP TS 22.262 can not be fulfilled. |
|  |  |
| ***Clauses affected:*** | 5.3.9, 5.3.10, 8.10.1, 8.10.x (new), 11.2 |
|  |  |
|  | **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's revision history:*** |  |

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

### 5.3.9 SEAL Client

The following SEAL Clients for MSGin5G Service may be supported:

- Group management client as specified in 3GPP TS 23.434 [5];

- Configuration management client as specified in 3GPP TS 23.434 [5]; and

- Data Delivery client as specified in 3GPP TS 23.433 [20].

### 5.3.10 SEAL server

The following SEAL servers for MSGin5G Service may be supported:

- Group management server as specified in 3GPP TS 23.434 [5];

- Configuration management server as specified in 3GPP TS 23.434 [5].

- Data Delivery server as specified in 3GPP TS 23.433 [20].

NOTE: Usage of other SEAL services (e.g. location) from 3GPP TS 23.434 [5] for MSGin5G Service is not in scope of the present document.

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

### 8.10.1 General

The MSGin5G Service functional entities MSGin5G Client and MSGin5G Server utilize the SEAL services. The SEAL services specified in 3GPP TS 23.434 [5] and SEALDD services specified in 3GPP TS 23.433 [20] are available to MSGin5G Service. In this clause, only the details of the information flows, procedures and APIs whose utilization by MSGin5G Service are well-known are described:

- the usage of Configuration management service is specified in clause 8.10.2;

- the usage of Group management service is specified in clause 8.10.3; and

- the usage of Data Delivery service is specified in clause 8.10.x.

Clause 8.10.3 specifies how the MSGin5G service is used in SEAL Data Delivery service.

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

### 8.10.x Data Delivery service

#### 8.10.x.1 General

The MSGin5G Service functional entities MSGin5G Client and MSGin5G Server utilize Data Delivery service procedures of SEAL to guarantee the transmission quality, e.g. guarantee the transmission latency is lower than the [500] ms required in 3GPP TS 22.262 [2].

#### 8.10.x.2 Information flows

The following information flows of Data Delivery service service are applicable for the MSGin5G Service:

- SEALDD enabled data transmission quality measurement specified in subclause 9.7.3 of 3GPP TS 23.433 [20];

-- the identifier of MSGin5G service in SEAL domain acts as the identifier of the VAL service ID and the MSGin5G Server address acts as the VAL server ID respectively. These two identifiers are used to identify the application traffic of MSGin5G service;

-- the latency should be included in the Measurement ID;

- data transmission quality guarantee specified in subclause 9.9.3 of 3GPP TS 23.433 [20];

-- the data transmission quality guarantee action may include re-establish transmission path, switch to backup transmission path etc, and the optimization action may include transmission parameter adjustment.

-- the triggering event, i.e. measurement threshold of the latency, is changeable. It may be included in the Latency IE as specified in clause 9.1.2.1, or be configured by the MSGin5G service provider. The value of the threshold of the latency is up to [500] ms as required in 3GPP TS 22.262 [2].

#### 8.10.x.3 Procedures

The following procedures of configuration management service are applicable for the MSGin5G Service:

- data transmission quality measurement specified in subclause 9.7.2 of 3GPP TS 23.433 [20];

-- In step 1, the MSGin5G message is considered as SEALDD traffic, i.e. a SEALDD traffic transmit in MSGin5G message format as described in Annex B of 3GPP TS 23.433 [20]; and

Editor’s note: it is FFS how this procedure works if the SEAL client is not supported by the MSGin5G UE. It may be based on the enhancement of SEALDD for supporting tethered device.

- data transmission quality guarantee is specified in subclause 9.9.2 of 3GPP TS 23.433 [20];

-- In step 1, the MSGin5G message is considered as SEALDD traffic.

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

## 11.2 Deployment of MSGin5G server(s)

The MSGin5G server(s) should be deployed in the PLMN operator domain. The VAL service using MSGin5G service for the message delivery acts as Application Server and interacts with MSGin5G Server via MSGin5G-3 reference point. The MSGin5G server(s) connects with the 3GPP network system in one or more PLMN operator domain. The MSGin5G server(s) may be supporting multiple Application Servers.

Figure 11.2-1 illustrates the deployment of multiple MSGin5G Servers in a single PLMN operator domain. Each MSGin5G Server serves a part of MSGin5G service subscribers (including the subscriber using the MSGin5G UE or Non-MSGin5G UE) in this PLMN operator domain. In this deployment, the MSGin5G Servers shall be connected with each other to provide the MSGin5G service to all MSGin5G service subscribers in the PLMN operator domain. The MSGin5G Servers provide MSGin5G service to the Application Server(s) deployed in the VAL service provider domain. The Application Server may be connected and registered to one MSGin5G Server.



Figure 11.2-1: MSGin5G Server(s) deployed in a single PLMN operator domain with interconnection between MSGin5G Server(s)

Figure 11.2-2 illustrates the deployment of MSGin5G Servers in multiple PLMN operator domains. Each MSGin5G Server serves the MSGin5G service subscribers in this PLMN operator domain. In this deployment, the MSGin5G Servers deployed in PLMN operator domain 1 may be connected with the MSGin5G deployed in PLMN operator domain 2 to provide the MSGin5G service interconnection based on the business agreement between PLMN operator 1 and PLMN operator 2.



Figure 11.2-2: MSGin5G Server(s) deployed in multiple PLMN operator domain with interconnection between MSGin5G Server(s)