**3GPP TSG-SA WG6 Meeting #45-bis-e S6-212283 Rev1**

**e-meeting, 11th – 19th October 2021 (revision of S6-21xxxx)**

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| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** |  | **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 | **X** | Radio Access Network |  | Core Network | **X** |

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|  |
| ***Title:***  | Add definition of MSGin5G Server address |
|  |  |
| ***Source to WG:*** |  |
| ***Source to TSG:*** | S6 |
|  |  |
| ***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 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | The definition of MSGin5G Server address is needed as mentioned in the EN in clause 8.1.2. This CR is proposed to add this definition. |
|  |  |
| ***Summary of change:*** | Add definition of MSGin5G Server address and remove the EN about MSGin5G Server address in clause 8.1.2. |
|  |  |
| ***Consequences if not approved:*** | The definition of MSGin5G Server address is missed |
|  |  |
| ***Clauses affected:*** | 8.6 |
|  |  |
|  | **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's revision history:*** |  |

### \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Change 1\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

# 6 Identities

## 6.1 Identities for MSGin5G Service endpoints

### 6.1.1 General

MSGin5G Service endpoints shall be identified by unique identifiers within the MSGin5G Service domain. For each MSGin5G Service endpoint the identifier shall be a unique URI that can be used to identify the MSGin5G Service endpoint's home service domain.

The following clauses describe different types if MSGin5G Service endpoint identifiers.

### 6.1.2 UE Service Identity (UE Service ID)

UE Service ID is the identifier of a UE (i.e. MSGin5G UEs, Legacy 3GPP UEs and Non-3GPP UEs).

For an MSGin5G UE, the assigned UE Service ID is used by the MSGin5G Client to register with the MSGin5G Server and to send and receive MSGin5G messages. It is used by the MSGin5G Server to authenticate and authorize the associated UE to the MSGin5G Service at the application layer.

For a Legacy 3GPP UE or a Non-3GPP UE, the assigned UE Service ID is used by the Message Gateway to register with the MSGin5G Server, to map into the Service ID in their defined message delivery mechanisms for interworking, and to send/receive MSGin5G messages to/from MSGin5G Server on behalf of Legacy 3GPP UE or Non-3GPP UE.

### 6.1.3 Application Server Service Identity (AS Service ID)

AS Service ID is the identifier of an Application Server. It is used to perform mutual authentication with the MSGin5G Server for establishing a secured service connection, and it is used to send/receive MSGin5G messages to/from other MSGin5G Service endpoints via MSGin5G Server.

### 6.1.4 Message Gateway Service Identity (MGW Service ID)

MGW Service ID is the identifier of Message Gateway. It is used to perform mutual authentication with the MSGin5G Server for establishing a secured service connection, and it is used to send/receive MSGin5G messages to/from MSGin5G Server on behalf of Legacy 3GPP UE or Non-3GPP UE.

## 6.2 MSGin5G Group Service Identity (Group Service ID)

The Group Service ID is a unique identifier within the MSGin5G Service that represents a pre-defined MSGin5G Group. A pre-defined MSGin5G Group is established before the MSGin5G Group messages are sent to it, and is assigned a unique and permanent Group Service ID when it is established. This Group Service ID shall be communicated to all members of the group. A service endpoint (UE or Application Server) shall use this Group Service ID to send a message to all members of the group.

The Group Service ID shall be a unique URI that can be used to identify where the group is hosted.

## 6.3 Broadcast Area Service Identity (Broadcast Area ID)

The Broadcast Area ID is the identity of the Service Area where the broadcast message is delivered.

## 6.4 MSGin5G UE Identity (MSGin5G UE ID)

The MSGin5G UE ID is a unique identifier that represents the MSGin5G UE (i.e. the device identifier of the MSGin5G UE). The MSGin5G UE ID may be pre-configured to the MSGin5G UE by its vendor.

## 6.5 Non-MSGin5G UE identity (Non-MSGin5G UE ID)

The Non-MSGin5G UE ID is a unique identifier that represents the Non-MSGin5G UE in the Non-MSGin5G Service. A Non-MSGin5G UE ID is associated with a specific Non-MSGin5G UE. It is used by the Message Gateway in the MSGin5G Service to record the Non-MSGin5G UE. It is also used by the Message Gateway as a part of VAL UE ID when the Message Gateway executes the Non-MSGin5G UE configuration procedure on behalf of a Non-MSGin5G UE. The format of Non-MSGin5G UE ID may differ among different VALs. The non-MSGin5G ID may be pre-configured to the Non-MSGin5G UE by its vendor.

## 6.6 Application Identity (Application ID)

Application ID is an identifier that represents the application for which the payload of message is intended. The content of Application ID is outside the scope of this document.

## 6.7 MSGin5G Server address

MSGin5G Server address is the identifier of an MSGin5G Server within an MSGin5G service provider’s domain. It identifies the service provider domain where it can be reached. The MSGin5G Service endpoints in this MSGin5G service provider’s domain can contact with an MSGin5G Server by using the MSGin5G Server address of this MSGin5G Server.

### \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Change 2\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### 8.1.2 MSGin5G UE Configuration

In the MSGin5G UE configuration procedure, the MSGin5G UE acts as Configuration management client specified in 3GPP TS 23.434 [5].

The following steps of configuration management service apply for the MSGin5G UE:

- Send the Get VAL UE configuration request specified in clause 11.3.2.1 of 3GPP TS 23.434 [5];

- Receive the related Get VAL UE configuration response specified in clause 11.3.2.2 of 3GPP TS 23.434 [5];

The usage of the above information flows is clarified as below:

- The MSGin5G UE ID works as VAL UE ID which is mandatory in the Get VAL UE configuration request;

- The UE Service ID works as VAL user ID;

- The service identifier of MSGin5G Service works as VAL service ID;

Besides the IEs specified in clause 11.3.2.1 of 3GPP TS 23.434 [5], the information in table 8.1.2-1 is also included in the Get VAL UE configuration request.

Table 8.1.2-1: Additional Information in the Get VAL UE configuration request

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| MSGin5G UE information | O | Other information needed by the configuration procedure. (see NOTE) |
| NOTE: The information can be the device type, device vendor, etc. It is specified by application provider or MSGin5G Service provider and is out of scope of this document. The MSGin5G Service provider can configure the MSGin5G UE with different configuration data based on this IE. E.g. all sensors can be configured to a same MSGin5G Server. |

The information in table 8.1.2-2 is included in the Get VAL UE configuration response as a part of VAL UE configuration data.

Table 8.1.2-2: Information in the Get VAL UE configuration response

|  |  |  |
| --- | --- | --- |
| Information element | Status | Description |
| UE Service ID | M | UE Service ID assigned to the requesting MSGin5G UE. |
| MSGin5G Server address | M | The MSGin5G Server which serves this MSGin5G UE. |
| MSGin5G Service specific information | O | The specific information of the MSGin5G Service specified by the MSGin5G Service provider. (see NOTE) |
| NOTE: E.g. the segment size of MSGin5G message in this service provider. The detailed definition is out of scope of this document. |

Besides the functionalities of Configuration Management Server specified in 3GPP TS 23.434 [5], the MSGin5G Configuration Function should also checks whether the MSGin5G UE ID (i.e. VAL UE ID) is included in a former Get VAL UE configuration request.

- If so, the MSGin5G Configuration Function included the UE Service ID assigned to the MSGin5G UE in the former configuration procedure as a part of VAL UE configuration data,

- Otherwise, a new UE Service ID is assigned to the MSGin5G UE and included in the VAL UE configuration data.

Then the MSGin5G Configuration Function processes the configuration request according to the service policy.