**3GPP TSG-CT WG1 Meeting #137-eC1-22argd**

**E-Meeting, 18th – 26th August 2022…………………………………………(was C1-224842)**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **24.501** | **CR** | **4550** | **rev** | **1** | **Current version:** | **17.7.1** |  |
|  |
| *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** |

|  |
| --- |
|  |
| ***Title:***  | Aerial subscription indication to UAV attached for normal services |
|  |  |
| ***Source to WG:*** | Samsung |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | ID\_UAS |  | ***Date:*** | 2022-08-11 |
|  |  |  |  |  |
| ***Category:*** | B |  | ***Release:*** | Rel-17 |
|  | *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)* |
|  |  |
| ***Reason for change:*** | In the C1-220713, the 5GMM cause #79 text was revised by removing the “until the UE is switched off or the UICC containing the USIM is removed” to address one of the scenario where UAV could request for UAS services when the Aerial subscription is enabled.Currently the specification has not addressed how the UAV will be getting to know about the aerial subscription from the network when it is registered with the network after the cause #79 is received.It is proposed that AMF use UCU procedure to update that UAS services now available for the UAV. Then UAV may use the Mobility registration or periodic registration to request for UAS services from the network without impacting the ongoing services. |
|  |  |
| ***Summary of change:*** | The following change is proposed:* AMF shall update about the availability of UAS services to UAV when operator enables the aerial subscription
 |
|  |  |
| ***Consequences if not approved:*** | UAV will not be knowing when to request for UAS services even if the aerial subscription has been enabled |
|  |  |
| ***Clauses affected:*** | 5.4.4.3, 9.11.2.10, 9.11.2.XX (new) |
|  |  |
|  | **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:*** |  |

\*\*\*\*\*Start changes \*\*\*\*\*

#### 5.4.4.3 Generic UE configuration update accepted by the UE

Upon receiving the CONFIGURATION UPDATE COMMAND message, the UE shall stop timer T3346 if running and use the contents to update appropriate information stored within the UE.

If "acknowledgement requested" is indicated in the Acknowledgement bit of the Configuration update indication IE in the CONFIGURATION UPDATE COMMAND message, the UE shall send a CONFIGURATION UPDATE COMPLETE message.

If the UE receives a new 5G-GUTI in the CONFIGURATION UPDATE COMMAND message, the UE shall consider the new 5G-GUTI as valid, the old 5G-GUTI as invalid, stop timer T3519 if running, and delete any stored SUCI; otherwise, the UE shall consider the old 5G-GUTI as valid. The UE shall provide the 5G-GUTI to the lower layer of 3GPP access if the CONFIGURATION UPDATE COMMAND message is sent over the non-3GPP access, and the UE is in 5GMM-REGISTERED in both 3GPP access and non-3GPP access in the same PLMN.

If the UE receives a new TAI list in the CONFIGURATION UPDATE COMMAND message, the UE shall consider the new TAI list as valid and the old TAI list as invalid; otherwise, the UE shall consider the old TAI list as valid. If the registration area contains TAIs belonging to different PLMNs, which are equivalent PLMNs, and

a) the UE already has stored allowed NSSAI for the current registration area, the UE shall store the allowed NSSAI for the current registration area in each of the allowed NSSAIs which are associated with each of the PLMNs in the registration area; and

b) the UE already has stored rejected NSSAI for the current registration area, the UE shall store the rejected NSSAI for the current registration area in each of the rejected NSSAIs which are associated with each of the PLMNs in the registration area.

If the UE receives a new truncated 5G-S-TMSI configuration in the CONFIGURATION UPDATE COMMAND message, the UE shall consider the new truncated 5G-S-TMSI configuration as valid and the old truncated 5G-S-TMSI configuration as invalid; otherwise, the UE shall consider the old truncated 5G-S-TMSI configuration as valid.

If the UE receives a new service area list in the CONFIGURATION UPDATE COMMAND message, the UE shall consider the new service area list as valid and the old service area list as invalid; otherwise, the UE shall consider the old service area list, if any, as valid.

If the UE receives new NITZ information in the CONFIGURATION UPDATE COMMAND message, the UE considers the new NITZ information as valid and the old NITZ information as invalid; otherwise, the UE shall consider the old NITZ information as valid.

If the UE receives a LADN information IE in the CONFIGURATION UPDATE COMMAND message, the UE shall consider the old LADN information as invalid and the new LADN information as valid, if any; otherwise, the UE shall consider the old LADN information as valid.

If the UE receives a new allowed NSSAI for the associated access type in the CONFIGURATION UPDATE COMMAND message, the UE shall consider the new allowed NSSAI as valid for the associated access type, store the allowed NSSAI for the associated access type as specified in subclause 4.6.2.2 and consider the old allowed NSSAI for the associated access type as invalid; otherwise, the UE shall consider the old allowed NSSAI as valid for the associated access type.

If the UE receives a new configured NSSAI in the CONFIGURATION UPDATE COMMAND message, the UE shall consider the new configured NSSAI for the registered PLMN or SNPN as valid and the old configured NSSAI for the registered PLMN or SNPN as invalid; otherwise, the UE shall consider the old configured NSSAI for the registered PLMN or SNPN as valid The UE shall store the new configured NSSAI as specified in subclause 4.6.2.2. In addition, if the CONFIGURATION UPDATE COMMAND message contains an NSSRG information IE, the UE shall store the contents of the NSSRG information IE as specified in subclause 4.6.2.2.

If the UE receives the Network slicing indication IE in the CONFIGURATION UPDATE COMMAND message with the Network slicing subscription change indication set to "Network slicing subscription changed", the UE shall delete the network slicing information for each and every PLMN except for the current PLMN as specified in subclause 4.6.2.2.

If the UE receives Operator-defined access category definitions IE in the CONFIGURATION UPDATE COMMAND message and the Operator-defined access category definitions IE contains one or more operator-defined access category definitions, the UE shall delete any operator-defined access category definitions stored for the RPLMN and shall store the received operator-defined access category definitions for the RPLMN. If the UE receives the Operator-defined access category definitions IE in the CONFIGURATION UPDATE COMMAND message and the Operator-defined access category definitions IE contains no operator-defined access category definitions, the UE shall delete any operator-defined access category definitions stored for the RPLMN. If the CONFIGURATION UPDATE COMMAND message does not contain the Operator-defined access category definitions IE, the UE shall not delete the operator-defined access category definitions stored for the RPLMN.

If the UE receives the SMS indication IE in the CONFIGURATION UPDATE COMMAND message with the SMS availability indication set to:

a) "SMS over NAS not available", the UE shall consider that SMS over NAS transport is not allowed by the network; and

b) "SMS over NAS available", the UE may request the use of SMS over NAS transport by performing a registration procedure for mobility and periodic registration update as specified in subclause 5.5.1.3, after the completion of the generic UE configuration update procedure.

If the UE receives the CAG information list IE in the CONFIGURATION UPDATE COMMAND message, the UE shall:

a) replace the "CAG information list" stored in the UE with the received CAG information list IE when received in the HPLMN or EHPLMN;

NOTE 1: When the UE receives the CAG information list IE in the HPLMN derived from the IMSI, the EHPLMN list is present and is not empty and the HPLMN is not present in the EHPLMN list, the UE behaves as if it receives the CAG information list IE in a VPLMN.

b) replace the serving VPLMN's entry of the "CAG information list" stored in the UE with the serving VPLMN's entry of the received CAG information list IE when the UE receives the CAG information list IE in a serving PLMN other than the HPLMN or EHPLMN; or

NOTE 2: When the UE receives the CAG information list IE in a serving PLMN other than the HPLMN or EHPLMN, entries of a PLMN other than the serving VPLMN, if any, in the received CAG information list IE are ignored.

c) remove the serving VPLMN's entry of the "CAG information list" stored in the UE when the UE receives the CAG information list IE in a serving PLMN other than the HPLMN or EHPLMN and the CAG information list IE does not contain the serving VPLMN's entry.

The UE shall store the "CAG information list" received in the CAG information list IE as specified in annex C.

If the received "CAG information list" includes an entry containing the identity of the current PLMN and the UE had set the CAG bit to "CAG supported" in the 5GMM capability IE of the REGISTRATION REQUEST message, the UE shall operate as follows.

a) If the UE receives the CONFIGURATION UPDATE COMMAND message via a CAG cell, the entry for the current PLMN in the received "CAG information list" does not include any of the CAG-ID(s) supported by the current CAG cell, and:

1) the entry for the current PLMN in the received "CAG information list" does not include an "indication that the UE is only allowed to access 5GS via CAG cells", then the UE shall enter the state 5GMM-REGISTERED.LIMITED-SERVICE and shall search for a suitable cell according to 3GPP TS 38.304 [28] or 3GPP TS 36.304 [25C] with the updated "CAG information list"; or

2) the entry for the current PLMN in the received "CAG information list" includes an "indication that the UE is only allowed to access 5GS via CAG cells" and:

i) if the entry for the current PLMN in the received "CAG information list" includes one or more CAG-IDs, the UE shall enter the state 5GMM-REGISTERED.LIMITED-SERVICE and shall search for a suitable cell according to 3GPP TS 38.304 [28] with the updated "CAG information list"; or

ii) if the entry for the current PLMN in the received "CAG information list" does not include any CAG-ID and:

A) the UE does not have an emergency PDU session, then the UE shall enter the state 5GMM-REGISTERED.PLMN-SEARCH and shall apply the PLMN selection process defined in 3GPP TS 23.122 [5] with the updated "CAG information list"; or

B) the UE has an emergency PDU session, then the UE shall perform a local release of all PDU sessions associated with 3GPP access except for the emergency PDU session and enter the state 5GMM-REGISTERED.LIMITED-SERVICE; or

b) If the UE receives the CONFIGURATION UPDATE COMMAND message via a non-CAG cell and the entry for the current PLMN in the received "CAG information list" includes an "indication that the UE is only allowed to access 5GS via CAG cells" and:

1) if the "allowed CAG list" for the current PLMN in the received "CAG information list" includes one or more CAG-IDs, the UE shall enter the state 5GMM-REGISTERED.LIMITED-SERVICE and shall search for a suitable cell according to 3GPP TS 38.304 [28] with the updated "CAG information list"; or

2) if the entry for the current PLMN in the received "CAG information list" does not include any CAG-ID and:

i) the UE does not have an emergency PDU session, then the UE shall enter the state 5GMM-REGISTERED.PLMN-SEARCH and shall apply the PLMN selection process defined in 3GPP TS 23.122 [5] with the updated "CAG information list"; or

ii) the UE has an emergency PDU session, then the UE shall perform a local release of all PDU sessions associated with 3GPP access except for the emergency PDU session and enter the state 5GMM-REGISTERED.LIMITED-SERVICE.

If the received "CAG information list" does not include an entry containing the identity of the current PLMN and the UE receives the CONFIGURATION UPDATE COMMAND message via a CAG cell, the UE shall enter the state 5GMM-REGISTERED.LIMITED-SERVICE and shall search for a suitable cell according to 3GPP TS 38.304 [28] or 3GPP TS 36.304 [25C] with the updated "CAG information list".

If the CONFIGURATION UPDATE COMMAND message indicates "registration requested" in the Registration requested bit of the Configuration update indication IE and:

a) contains no other parameters or contains at least one of the following parameters: a new allowed NSSAI, a new configured NSSAI or the Network slicing subscription change indication, and:

1) an emergency PDU session exists, the UE shall, after the completion of the generic UE configuration update procedure and the release of the emergency PDU session, release the existing N1 NAS signalling connection. If any Tsor-cm timer(s) were running and have stopped, the UE shall attempt to obtain service on a higher priority PLMN (see 3GPP TS 23.122 [5]). Otherwise the UE start a registration procedure for mobility and periodic registration update as specified in subclause 5.5.1.3; or

2) no emergency PDU Session exists, the UE shall, after the completion of the generic UE configuration update procedure and the release of the existing N1 NAS signalling connection. If any Tsor-cm timer(s) were running and have stopped, the UE shall attempt to obtain service on a higher priority PLMN (see 3GPP TS 23.122 [5]). Otherwise the UE start a registration procedure for mobility and periodic registration update as specified in subclause 5.5.1.3;

b) a MICO indication is included without a new allowed NSSAI; a new configured NSSAI or the Network slicing subscription change indication, the UE shall, after the completion of the generic UE configuration update procedure, start a registration procedure for mobility and registration update as specified in subclause 5.5.1.3 to re-negotiate MICO mode with the network;

c) an Additional configuration indication IE is included, and:

1) "release of N1 NAS signalling connection not required" is indicated in the Signalling connection maintain request bit of the Additional configuration indication IE; and

2) a new allowed NSSAI, a new configured NSSAI and the Network slicing subscription change indication is not included in the CONFIGURATION UPDATE COMMAND message,

 the UE shall, after the completion of the generic UE configuration update procedure, start a registration procedure for mobility and registration update as specified in subclause 5.5.1.3; or

d) a UE radio capability ID deletion indication IE set to "Network-assigned UE radio capability IDs deletion requested" is included, and:

1) the UE is not in NB-N1 mode;

2) a new allowed NSSAI, a new configured NSSAI or a Network slicing subscription change indication is not included; and

3) the UE has set the RACS bit to "RACS supported" in the 5GMM capability IE of the REGISTRATION REQUEST message,

 the UE shall, after the completion of the generic UE configuration update procedure, start a registration procedure for mobility and registration update as specified in subclause 5.5.1.3.

The UE receiving the rejected NSSAI in the CONFIGURATION UPDATE COMMAND message takes the following actions based on the rejection cause in the rejected S-NSSAI(s):

"S-NSSAI not available in the current PLMN or SNPN"

 The UE shall add the rejected S-NSSAI(s) in the rejected NSSAI for the current PLMN or SNPN as specified in subclause 4.6.2.2 and shall not attempt to use this S-NSSAI(s) in the current PLMN or SNPN until switching off the UE, the UICC containing the USIM is removed, the entry of the "list of subscriber data" with the SNPN identity of the current SNPN is updated, or the rejected S-NSSAI(s) are removed or deleted as described in subclause 4.6.2.2.

"S-NSSAI not available in the current registration area"

 The UE shall add the rejected S-NSSAI(s) in the rejected NSSAI for the current registration area as specified in subclause 4.6.2.2 and shall not attempt to use this S-NSSAI(s) in the current registration area until switching off the UE, the UE moving out of the current registration area, the UICC containing the USIM is removed, the entry of the "list of subscriber data" with the SNPN identity of the current SNPN is updated, or the rejected S-NSSAI(s) are removed or deleted as described in subclause 4.6.2.2.

"S-NSSAI not available due to the failed or revoked network slice-specific authentication and authorization"

 The UE shall add the rejected S-NSSAI(s) in the rejected NSSAI for the failed or revoked NSSAA as specified in subclause 4.6.2.2 and shall not attempt to use this S-NSSAI in the current PLMN or SNPN over any access until switching off the UE, the UICC containing the USIM is removed, the entry of the "list of subscriber data" with the SNPN identity of the current SNPN is updated, or the rejected S-NSSAI(s) are removed or deleted as described in subclause 4.6.1 and 4.6.2.2.

"S-NSSAI not available due to maximum number of UEs reached"

 Unless the back-off timer value received along with the S-NSSAI is zero, the UE shall add the rejected S-NSSAI(s) in the rejected NSSAI for the maximum number of UEs reached as specified in subclause 4.6.2.2 and shall not attempt to use this S-NSSAI in the current PLMN or SNPN over the current access until switching off the UE, the UICC containing the USIM is removed, the entry of the "list of subscriber data" with the SNPN identity of the current SNPN is updated, or the rejected S-NSSAI(s) are removed as described in subclause 4.6.2.2.

NOTE 3: If the back-off timer value received along with the S-NSSAI in the rejected NSSAI for the maximum number of UEs reached is zero as specified in subclause 10.5.7.4a of TS 24.008, the UE does not consider the S-NSSAI as the rejected S-NSSAI.

If there is one or more S-NSSAIs in the rejected NSSAI with the rejection cause "S-NSSAI not available due to maximum number of UEs reached", then for each S-NSSAI, the UE shall behave as follows:

a) stop the timer T3526 associated with the S-NSSAI, if running;

b) start the timer T3526 with:

1) the back-off timer value received along with the S-NSSAI, if back-off timer value is received along with the S-NSSAI that is neither zero nor deactivated; or

2) an implementation specific back-off timer value, if no back-off timer value is received along with the S-NSSAI; and

c) remove the S-NSSAI from the rejected NSSAI for the maximum number of UEs reached when the timer T3526 associated with the S-NSSAI expires.

If the UE receives the NSAG information IE in the CONFIGURATION UPDATE COMMAND message, the UE shall store the NSAG information as specified in subclause 4.6.2.2.

If the UE receives a T3447 value IE in the CONFIGURATION UPDATE COMMAND message and has indicated "service gap control supported" in the REGISTRATION REQUEST, then the UE shall replace the stored T3447 value with the received value in the T3447 value IE, and if neither zero nor deactivated use the received T3447 value with the timer T3447 next time it is started. If the received T3447 value is zero or deactivated, then the UE shall stop the timer T3447 if running.

If the UE is not in NB-N1 mode, the UE has set the RACS bit to "RACS supported" in the 5GMM capability IE of the REGISTRATION REQUEST message and the CONFIGURATION UPDATE COMMAND message includes:

a) a UE radio capability ID deletion indication IE set to "Network-assigned UE radio capability IDs deletion requested", the UE shall delete any network-assigned UE radio capability IDs associated with the RPLMN or RSNPN and, if the UE supports access to an SNPN using credentials from a credentials holder, the selected entry of the "list of subscriber data" or the selected PLMN subscription stored at the UE; or

b) a UE radio capability ID IE, the UE shall store the UE radio capability ID as specified in annex C.

If the UE is not currently registered for emergency services and the 5GS registration result IE value in the CONFIGURATION UPDATE COMMAND message is set to "Registered for emergency services", the UE shall consider itself registered for emergency services and shall locally release all non-emergency PDU sessions, if any.

If the UE receives the service-level-AA container IE of the CONFIGURATION UPDATE COMMAND message, the UE passes it to the upper layer.

If the CONFIGURATION UPDATE COMMAND message includes the service-level-AA response in the Service-level-AA container IE with the SLAR field set to "Service level authentication and authorization was not successful or service level authorization is revoked", the UE shall forward the service-level-AA response to the upper layers, so the UUAA authorization data is deleted as specified in 3GPP TS 33.256 [24B].

If the UE receives the List of PLMNs to be used in disaster condition IE in the CONFIGURATION UPDATE COMMAND message and the UE supports MINT, the UE shall delete the "list of PLMN(s) to be used in disaster condition" stored in the ME together with the PLMN ID of the RPLMN, if any, and may store the "list of PLMN(s) to be used in disaster condition" included in the List of PLMNs to be used in disaster condition IE in the ME together with the PLMN ID of the RPLMN.

If the UE receives the Disaster roaming wait range IE in the CONFIGURATION UPDATE COMMAND message and the UE supports MINT, the UE shall delete the disaster roaming wait range stored in the ME, if any, and store the disaster roaming wait range included in the Disaster roaming wait range IE in the ME.

If the UE receives the Disaster return wait range IE in the CONFIGURATION UPDATE COMMAND message and the UE supports MINT, the UE shall delete the disaster roaming wait range stored in the ME, if any, and store the disaster roaming wait range included in the Disaster roaming wait range IE in the ME.

If the UE receives the Updated PEIPS assistance information IE in the CONFIGURATION UPDATE COMMAND message and the UE supports NR paging subgrouping, the UE shall use the PEIPS assistance information included in the Updated PEIPS assistance information IE.

If the UE receives a CONFIGURATION UPDATE COMMAND message with the MPS indicator bit set to "Access identity 1 valid", the UE shall act as a UE with access identity 1 configured for MPS as described in subclause 4.5.2, in all NG-RAN of the registered PLMN and its equivalent PLMNs or in the case of SNPN, as described in subclause 4.5.2A, in all NG-RAN of the registered SNPN. The MPS indicator bit in the Priority indicator IE provided in the CONFIGURATION UPDATE COMMAND message is valid until the UE receives a REGISTRATION ACCEPT message with the MPS indicator bit set to "Access identity 1 not valid" or the UE receives a CONFIGURATION UPDATE COMMAND message with the MPS indicator bit of the Priority indicator IE set to "Access identity 1 not valid" or until the UE selects a non-equivalent PLMN (or in the case of SNPN, selects another SNPN). Access identity 1 is only applicable while the UE is in N1 mode.

If the UE is not currently registered for UAS services due to receipt of 5GMM cause #79 "UAS services not allowed" but registered for other services and the Service-level-AA subscription enabled IE value in the CONFIGURATION UPDATE COMMAND message is set to "Service-level-AA subscription enabled", then the UE may perform registration procedure for mobility and periodic registration as specified in subclause 5.5.1.3, after the completion of the generic UE configuration update procedure by including the service-level device ID set to the CAA-level UAV ID in the Service-level-AA container IE of REGISTRATION REQUEST message.

\*\*\*\*\*Next changes \*\*\*\*\*

#### 9.11.2.10 Service-level-AA container

The purpose of the Service-level-AA container information element is to transfer upper layer information for authentication and authorization between the UE and the network.

The Service-level-AA container information element is coded as shown in figure 9.11.2.10.1, figure 9.11.2.10.2, figure 9.11.2.10.3, figure 9.11.2.10.4 and table 9.11.2.10.1.

The Service-level-AA container information element is a type 6 information element with a minimum length of 6 octets and a maximum length of 65538 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Service-level-AA container IEI | octet 1 |
| Length of Service-level-AA container contents | octet 2 |
|  | octet 3 |
|  | octet 4 |
| Service-level-AA container contents |  |
|  | octet n |

Figure 9.11.2.10.1: Service-level-AA container information element

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Service-level-AA parameter 1 | octet 4octet x1 |
| Service-level-AA parameter 2 | octet x1+1\*octet x2\* |
| …… | … |
| Service-level-AA parameter n | octet xi +1\*octet n\* |

Figure 9.11.2.10.2: Service-level-AA container contents

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Type of service-level-AA parameter | octet xi +1 |
| Length of service-level-AA parameter | octet xi +2 |
| Value of service-level-AA parameter | octet xi +3octet n |

Figure 9.11.2.10.3: Service-level-AA parameter (when the type of service-level-AA parameter field contains an IEI of a type 4 information element as specified in 3GPP TS 24.007 [11])

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Type of service-level-AA parameter | octet xi +1 |
| Length of service-level-AA parameter | octet xi +2octet xi +3 |
| Value of service-level-AA parameter | octet xi +4octet n |

Figure 9.11.2.10.4: Service-level-AA parameter (when the type of service-level-AA parameter field contains an IEI of a type 6 information element as specified in 3GPP TS 24.007 [11])

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Service-level-AA payload type | octet xi +1octet xi +3 |
| Service-level-AA payload | octet xi +4octet n |

Figure 9.11.2.10.5: Service-level-AA parameter (when Service-level-AA payload type and its associated Service-level-AA payload are included in the Service-level-AA container contents)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Type of service-level-AA parameter | Value of service-level-AA parameter | octet xi+1 |

Figure 9.11.2.10.6: Service-level-AA parameter (when the type of service-level-AA parameter field contains an IEI of a type 1 information element as specified in 3GPP TS 24.007 [11])

Table 9.11.2.10.1: Service-level-AA container information element

|  |
| --- |
| Service-level-AA container contents (octet 4 to octet n); max value of 65535 octets |
|  |
| The error handlings for service-level-AA parameters specified in subclauses 7.6.1, 7.6.3 and 7.7.1 shall apply to the service-level-AA parameters included in the service-level-AA container contents. |
| Service-level-AA parametersType of service-level-AA parameter (octet xi +1)This field contains the IEI of the service-level-AA parameter. |
|  |
| Length of service-level-AA parameterThis field indicates binary coded length of the value of the service-level-AA parameter. |
| Value of service-level-AA parameterThis field contains the value of the service-level-AA parameter with the value part of the referred information element based on following service-level-AA parameter reference.The receiving entity shall ignore service-level-AA parameter with type of service-level-AA parameter field containing an unknown IEI. |
| IEI (hexadecimal)  | Service-level-AA parameter name | Service-level-AA parameter reference |
| 10 | Service-level device ID | Service-level device ID (see subclause 9.11.2.11) |
| 20 | Service-level-AA server address | Service-level-AA server address (see subclause 9.11.2.12) |
| 30 | Service-level-AA response | Service-level-AA response (see subclause 9.11.2.14) |
| 40 | Service-level-AA payload type | Service-level-AA payload type (see subclause 9.11.2.15) (NOTE) |
| 70 | Service-level-AA payload | Service-level-AA payload (see subclause 9.11.2.13) |
| A- | Service-level-AA pending indication | Service-level-AA pending indication (see subclause 9.11.2.17) |
| XX | Service-level-AA-subscription indication | Service-level-AA-subscription indication (see subclause 9.11.2.XX) |
| NOTE: A service-level-AA payload type is always followed by the associated service-level-AA payload as shown in figure 9.11.2.10.5. |

#### 9.11.2.XX Service-level-AA-subscription indication

The purpose of the Service-level-AA-subscription indication element is to provide an indication of UAS service availability to the UE

The Service-level-AA-subscription indication information element is coded as shown in figure 9.11.2.XX.1 and table 9.11.2.XX.1.

The Service-level-AA-subscription indication information element is a type 4 information element.with length 3 octet

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 |  | 2 | 1 |  |
|  | Service-level-AA-subscription indication | octet 1 |
|  | Length of Service-level-AA-subscription indication  | octet 2 |
| 0Spare | 0Spare | 0Spare | 0Spare | 0Spare | 0Spare | 0Spare | 0Spare | SLASI | octet 3 |

Figure 9.11.2.XX.1: Service-level-AA pending indication

Table 9.11.2.XX.1: Service-level-AA-subscription indication

|  |
| --- |
| RATC (octet 3, bit 1) |
| Bit |
| 1 |  |
| 0 | reserved |
| 1 | Service-level-AA subscription enabled |
|  |
| Bits 2 to 8 of octet 3 are spare and shall be encoded as zero. |

\*\*\*\*\*End changes \*\*\*\*\*