**3GPP TSG-CT WG1 Meeting #141eC1-23XXXX**

**Online 17– 21 April 2023**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
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|  | **24.501** | **CR** | **5207** | **rev** | **3** | **Current version:** | **18.2.1** |  |
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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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  | UE configuration update when supporting the partial network slice support  |
|  |  |
| ***Source to WG:*** | Lenovo |
| ***Source to TSG:*** | C1 |
|  |  |
| ***Work item code:*** | eNS\_Ph3 |  | ***Date:*** | 2023-04-05 |
|  |  |  |  |  |
| ***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 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:*** | According to TS 23.501, UE can support partial network slice support in a registration area. This CR is stage 3 implementation of the UE capability exchange for this feature. |
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| ***Summary of change:*** | UE configuration update procedure when the UE support the partial network slice support. |
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| ***Consequences if not approved:*** | Stage 3 is not according to stage 2. |
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| ***Clauses affected:*** | 5.4.4.1, 5.4.4.2, 5.4.4.3, 8.2.19.1, 8.2.19.X(new), 8.2.19.Y(new), 9.11.3.Z(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:*** |  |

-------------------------------------- Next Change --------------------------------------

#### 5.4.4.1 General

The purpose of this procedure is to:

a) allow the AMF to update the UE configuration for access and mobility management-related parameters decided and provided by the AMF by providing new parameter information within the command;

b) request the UE to perform a registration procedure for mobility and periodic registration update towards the network to update access and mobility management-related parameters decided and provided by the AMF (see subclause 5.5.1.3);

c) deliver the UAV authorization information to the UE, as described in 3GPP TS 23.256 [6AB]; or

d) update the PEIPS assistance information in the UE (see subclause 5.3.25).

This procedure is initiated by the network and can only be used when the UE has an established 5GMM context, and the UE is in 5GMM-CONNECTED mode. When the UE is in 5GMM-IDLE mode, the AMF may use the paging or notification procedure to initiate the generic UE configuration update procedure. The AMF can request a confirmation response in order to ensure that the parameter has been updated by the UE.

This procedure shall be initiated by the network to assign a new 5G-GUTI to the UE after:

a) a successful service request procedure invoked as a response to a paging request from the network and before the:

1) release of the N1 NAS signalling connection; or

2) suspension of the N1 NAS signalling connection due to user plane CIoT 5GS optimization i.e. before the UE and the AMF enter 5GMM-IDLE mode with suspend indication; or

b) the AMF receives an indication from the lower layers that it has received the NGAP UE context resume request message as specified in 3GPP TS 38.413 [31] for a UE in 5GMM-IDLE mode with suspend indication and this resumption is a response to a paging request from the network, and before the:

1) release of the N1 NAS signalling connection; or

2) suspension of the N1 NAS signalling connection due to user plane CIoT 5GS optimization i.e. before the UE and the AMF enter 5GMM-IDLE mode with suspend indication.

If the service request procedure was triggered due to 5GSM downlink signalling pending, the procedure for assigning a new 5G-GUTI can be initiated by the network after the transport of the 5GSM downlink signalling.

The following parameters are supported by the generic UE configuration update procedure without the need to request the UE to perform the registration procedure for mobility and periodic registration update:

a) 5G-GUTI;

b) TAI list;

c) Service area list;

d) NITZ information;

e) LADN information;

e1) Extended LADN information;

f) Rejected NSSAI;

NOTE: A cause value associated with a rejected S-NSSAI can be included in the Rejected NSSAI IE or in the Extended rejected NSSAI IE and a back-off timer value associated with rejected S-NSSAI(s) can be included in the Extended rejected NSSAI IE.

g) void;

h) Operator-defined access category definitions;

i) SMS indication;

j) "CAG information list";

k) UE radio capability ID;

l) 5GS registration result;

m) Truncated 5G-S-TMSI configuration;

n) T3447 value;

o) "list of PLMN(s) to be used in disaster condition";

p) disaster roaming wait range;

q) disaster return wait range; and

r) PEIPS assistance information;

s) Priority indicator;

t) NSAG information;

u) RAN timing synchronization;

v) Alternative NSSAI;

w) Partial allowed NSSAI; and

x) Patrial rejected NSSAI.

The following parameters can be sent to the UE with or without a request to perform the registration procedure for mobility and periodic registration update:

a) Allowed NSSAI;

b) Configured NSSAI;

c) Network slicing subscription change indication; or

d) NSSRG information.

The following parameters are sent to the UE with a request to perform the registration procedure for mobility and periodic registration update:

a) MICO indication;

b) UE radio capability ID deletion indication; and

c) Additional configuration indication.

The following parameters can be included in the Service-level-AA container IE to be sent to the UE without a request to perform the registration procedure for mobility and periodic registration update:

a) Service-level device ID;

b) Service-level-AA payload type;

c) Service-level-AA payload;

d) Service-level-AA response; or

e) Service-level-AA service status indication.

The following parameters are sent over 3GPP access only:

a) LADN information;

a1) Extended LADN information;

b) MICO indication;

c) TAI list;

d) Service area list;

e) "CAG information list";

f) UE radio capability ID;

g) UE radio capability ID deletion indication;

h) Truncated 5G-S-TMSI configuration;

i) Additional configuration indication;

j) T3447 value;

k) Service-level-AA container;

l) NSAG information; and

m) RAN timing synchronization.

The following parameters are managed and sent per access type i.e., independently over 3GPP access or non-3GPP access:

a) Allowed NSSAI;

b) Rejected NSSAI (when the NSSAI is rejected for the current registration area or is rejected for the maximum number of UEs reached); and

c) If the UE is not registered to the same PLMN or SNPN over 3GPP and non-3GPP access:

- 5G-GUTI;

- NITZ information;

- Rejected NSSAI (when the NSSAI is rejected for the current PLMN or SNPN or rejected for the failed or revoked NSSAA);

- Configured NSSAI;

- NSSRG information;

- SMS indication;

- 5GS registration result;

- PEIPS assistance information; and

- MPS indicator; and

d) Alternative NSSAI.

If the UE is registered to the same PLMN or SNPN over 3GPP and non-3GPP access, the following parameters are managed commonly and sent over 3GPP access or non-3GPP access:

a) 5G-GUTI;

b) NITZ information;

c) Rejected NSSAI (when the NSSAI is rejected for the current PLMN or SNPN or rejected for the failed or revoked NSSAA);

d) Configured NSSAI;

e) SMS indication; and

f) 5GS registration result;

g) "list of PLMN(s) to be used in disaster condition";

h) disaster roaming wait range;

i) disaster return wait range;

j) PEIPS assistance information;

k) NSSRG information; and

l) MPS indicator.



Figure 5.4.4.1.1: Generic UE configuration update procedure

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#### 5.4.4.2 Generic UE configuration update procedure initiated by the network

The AMF shall initiate the generic UE configuration update procedure by sending the CONFIGURATION UPDATE COMMAND message to the UE.

The AMF shall in the CONFIGURATION UPDATE COMMAND message either:

a) include one or more of the following parameters: 5G-GUTI, TAI list, allowed NSSAI that may include the mapped S-NSSAI(s), LADN information, extended LADN information, service area list, MICO indication, NITZ information, configured NSSAI that may include the mapped S-NSSAI(s), NSSRG information, rejected S-NSSAI(s) in the Rejected NSSAI IE or in the Extended rejected NSSAI IE, network slicing subscription change indication, operator-defined access category definitions, SMS indication, "CAG information list", UE radio capability ID, 5GS registration result, UE radio capability ID deletion indication, truncated 5G-S-TMSI configuration, T3447 value, "list of PLMN(s) to be used in disaster condition", disaster roaming wait range, disaster return wait range, PEIPS assistance information, the priority indicator, the NSAG information, alternative NSSAI partial allowed NSSAI or partial rejected NSSAI;

b) include the Configuration update indication IE with the Registration requested bit set to "registration requested"; or

c) include a combination of both a) and b).

If the UE is registering or registered for onboarding services in SNPN, the serving SNPN shall not provide the configured NSSAI, the allowed NSSAI or the rejected NSSAI to the UE.

If the UE supports extended rejected NSSAI, the rejected S-NSSAI(s) shall be included in the Extended rejected NSSAI IE. Otherwise the rejected S-NSSAI(s) shall be included in the Rejected NSSAI IE.

If an acknowledgement from the UE is requested, the AMF shall indicate "acknowledgement requested" in the Acknowledgement bit of the Configuration update indication IE in the CONFIGURATION UPDATE COMMAND message and shall start timer T3555. Acknowledgement shall be requested for all parameters except when only NITZ information is included.

To initiate parameter re-negotiation between the UE and network, the AMF shall indicate "registration requested" in the Registration requested bit of the Configuration update indication IE in the CONFIGURATION UPDATE COMMAND message.

NOTE 1: Generic UE configuration update procedure can be initiated by the AMF for updating the emergency number list, the extended emergency number list or both by indicating "registration requested" in the Registration requested bit of the Configuration update indication IE in the CONFIGURATION UPDATE COMMAND message to the UE.

If a new allowed NSSAI information or AMF re-configuration of supported S-NSSAIs requires an AMF relocation, the AMF shall indicate "registration requested" in the Registration requested bit of the Configuration update indication IE and include the Allowed NSSAI IE in the CONFIGURATION UPDATE COMMAND message.

If the AMF includes a new allowed NSSAI in the CONFIGURATION UPDATE COMMAND message and the subscription information includes the NSSRG information, then the S-NSSAIs of the allowed NSSAI shall be associated with at least one common NSSRG value. If the network has pending NSSAI, the S-NSSAIs in the pending NSSAI and allowed NSSAI shall be associated with at least one common NSSRG value.

If the AMF includes a new configured NSSAI in the CONFIGURATION UPDATE COMMAND message and the new configured NSSAI requires an AMF relocation as specified in 3GPP TS 23.501 [8], the AMF shall indicate "registration requested" in the Registration requested bit of the Configuration update indication IE in the message.

If the AMF includes a new configured NSSAI in the CONFIGURATION UPDATE COMMAND message, the subscription information includes the NSSRG information, and the UE has set the NSSRG bit in the 5GMM capability IE of the REGISTRATION REQUEST message to:

a) "NSSRG supported", then the AMF shall include the NSSRG information in the CONFIGURATION UPDATE COMMAND message; or

b) "NSSRG not supported", then the configured NSSAI shall include one or more S-NSSAIs each of which is associated with all the NSSRG value(s) of the default S-NSSAI(s), or the configured NSSAI shall include, based on the indication received from the UDM as specified in 3GPP TS 23.501 [8], all subscribed S-NSSAIs even if these S-NSSAIs do not share any common NSSRG value.

If the AMF needs to update the NSSRG information and the UE has set the NSSRG bit to "NSSRG supported" in the 5GMM capability IE of the REGISTRATION REQUEST message, then the AMF shall include the new NSSRG information in the CONFIGURATION UPDATE COMMAND message.

If the AMF includes a new NSSRG information in the CONFIGURATION UPDATE COMMAND message and the AMF determines that the UE needs to provide a new requested NSSAI due to no NSSRG value common to all the S-NSSAI(s) of the allowed NSSAI based on the new NSSRG information, then the CONFIGURATION UPDATE COMMAND message shall indicate "registration requested" in the Registration requested bit of the Configuration update indication IE.

If the CONFIGURATION UPDATE COMMAND message is initiated only due to changes to the allowed NSSAI and these changes require the UE to initiate a registration procedure, but the AMF is unable to determine an allowed NSSAI for the UE as specified in 3GPP TS 23.501 [8], then the CONFIGURATION UPDATE COMMAND message shall indicate "registration requested" in the Registration requested bit of the Configuration update indication IE, and shall not contain any other parameters.

If:

- the AMF needs to enforce a change in the restriction on the use of enhanced coverage or use of CE mode B as described in subclause 5.3.18; or

- the AMF decides to inform a UE in 5GMM-CONNECTED mode and registered for disaster roaming services, that a disaster condition is no longer applicable;

NOTE 1A: The case of the AMF triggering a generic UE configuration update procedure to inform a UE registered for disaster roaming services that a disaster condition is no longer applicable, is only applicable for a UE already in 5GMM-CONNECTED mode.

the AMF shall indicate "registration requested" in the Registration requested bit of the Configuration update indication IE and "release of N1 NAS signalling connection not required" in the Signalling connection maintain request bit of the Additional configuration indication IE in the CONFIGURATION UPDATE COMMAND message.

If a network slice-specific authentication and authorization procedure for an S-NSSAI is completed as a:

a) success, the AMF shall include this S-NSSAI in the allowed NSSAI over the same access of the requested S-NSSAI; or

b) failure, the AMF shall include this S-NSSAI in the rejected NSSAI for the failed or revoked NSSAA with the rejection cause "S-NSSAI not available due to the failed or revoked network slice-specific authentication and authorization" over either 3GPP access or non-3GPP access.

If authorization is revoked for an S-NSSAI that is in the current allowed NSSAI for an access type, the AMF shall:

a) provide a new allowed NSSAI to the UE, excluding the S-NSSAI for which authorization is revoked; and

b) provide a new rejected NSSAI for the failed or revoked NSSAA, including the S-NSSAI in the rejected NSSAI for which the authorization is revoked, with the rejection cause "S-NSSAI not available due to the failed or revoked network slice-specific authentication and authorization".

The allowed NSSAI and the rejected NSSAI shall be included in the CONFIGURATION UPDATE COMMAND message to reflect the result of the procedures subject to network slice-specific authentication and authorization.

NOTE 2: If there are multiple S-NSSAIs subject to network slice-specific authentication and authorization, it is implementation specific if the AMF informs the UE about the outcome of the procedures in one or more CONFIGURATION UPDATE COMMAND messages.

If the AMF includes the Network slicing indication IE in the CONFIGURATION UPDATE COMMAND message with the Network slicing subscription change indication set to "Network slicing subscription changed", and changes to the allowed NSSAI require the UE to initiate a registration procedure, but the AMF is unable to determine an allowed NSSAI for the UE as specified in 3GPP TS 23.501 [8], then the CONFIGURATION UPDATE COMMAND message shall additionally indicate "registration requested" in the Registration requested bit of the Configuration update indication IE and shall not include an allowed NSSAI.

If EAC mode is activated for an S-NSSAI, the AMF shall perform NSAC for the S-NSSAI subject to NSAC before such S-NSSAI is included in the allowed NSSAI in the CONFIGURATION UPDATE COMMAND message. If EAC mode is deactivated for an S-NSSAI, the AMF shall perform NSAC for the S-NSSAI subject to NSAC after such S-NSSAI is included in the allowed NSSAI in the CONFIGURATION UPDATE COMMAND message.

If the UE supports extended rejected NSSAI and the AMF determines that maximum number of UEs reached for one or more S-NSSAI(s) in the allowed NSSAI as specified in subclause 4.6.2.5, the AMF shall include the rejected NSSAI containing one or more S-NSSAIs with the rejection cause "S-NSSAI not available due to maximum number of UEs reached" in the Extended rejected NSSAI IE in the CONFIGURATION UPDATE COMMAND message. In addition, the AMF may include a back-off timer value for each S-NSSAI with the rejection cause "S-NSSAI not available due to maximum number of UEs reached" included in the Extended rejected NSSAI IE of the CONFIGURATION UPDATE COMMAND message. To avoid that large numbers of UEs simultaneously initiate deferred requests, the network should select the value for the backoff timer for each S-NSSAI for the informed UEs so that timeouts are not synchronised.

If the UE does not indicate support for extended rejected NSSAI and the maximum number of UEs has been reached, the AMF should include the rejected NSSAI containing one or more S-NSSAIs with the rejection cause "S-NSSAI not available in the current registration area" in the Rejected NSSAI IE and should not include these S-NSSAIs in the allowed NSSAI in the CONFIGURATION UPDATE COMMAND message. In addition, the AMF may based on the network policies start a local implementation specific timer for the UE per rejected S-NSSAI and upon expiration of the local implementation specific timer, the AMF may remove the rejected S-NSSAI from the rejected NSSAI and update to the UE by initiating the generic UE configuration update procedure.

NOTE 3: Based on network policies, the AMF can include the S-NSSAI(s) for which the maximum number of UEs has been reached in the rejected NSSAI with rejection causes other than "S-NSSAI not available in the current registration area".

If the UE has set the NSAG bit to "NSAG supported" in the 5GMM capability IE of the REGISTRATION REQUEST message, the AMF may include the NSAG information IE in the CONFIGURATION UPDATE COMMAND message. Up to 4 NSAG entries are allowed to be associated with a TAI list in the NSAG information IE.

NOTE 3a: How the AMF selects NSAG entries to be included in the NSAG information IE is implementation specific, e.g. take the NSAG priority and the current registration area into account.

If the UE supports network slice replacement and the AMF determines to provide the mapping information between the S-NSSAI to be replaced and the alternative S-NSSAI to the UE, then the AMF shall include the Alternative NSSAI IE in the CONFIGURATION UPDATE COMMAND message.

NOTE 3b: If the NSAG for the PLMN and its equivalent PLMN(s) have different associations with S-NSSAIs, then the AMF includes a TAI list for the NSAG entry in the NSAG information IE.

If the UE supports LADN per DNN and S-NSSAI and the AMF needs to update the extended LADN information, the AMF shall include the extended LADN information in the Extended LADN information IE of the CONFIGURATION UPDATE COMMAND message.If the AMF needs to update the LADN information, the AMF shall include the LADN information in the LADN information IE of the CONFIGURATION UPDATE COMMAND message.

If the UE has indicated its support for the partial network slice support by setting PNSS bit to "Partial network slice supported in the registration area" in the 5GMM capability IE of the REGISTRATION REQUEST message and if there is a new mapping information, the AMF shall include the new mapping information in the Partial allowed IE and in the Partial rejected IE of the CONFIGURATION UPDATE COMMAND message.

If the AMF needs to update the "CAG information list", the AMF shall include the CAG information list IE or the Extended CAG information list IE in the CONFIGURATION UPDATE COMMAND message.

NOTE 4: If the UE supports extended CAG information list, the CAG information list can be included either in the CAG information list IE or Extended CAG information list IE.

If the UE does not support extended CAG information list, the CAG information list shall not be included in the Extended CAG information list IE.

If the AMF needs to update the "CAG information list", the UE has an emergency PDU session, and the AMF can determine that the UE is in

a) a CAG cell and none of the CAG-ID(s) supported by the CAG cell is authorized based on the "allowed CAG list" for the current PLMN in the updated "CAG information list"; or

b) a non-CAG cell and the entry for the current PLMN in the updated "CAG information list" includes an "indication that the UE is only allowed to access 5GS via CAG cells";

the AMF may indicate to the SMF to perform a local release of:

a) all non-emergency single access PDU sessions associated with 3GPP access;

b) all MA PDU sessions without a PDN connection established as a user-plane resource and without user plane resources established on non-3GPP access; and

c) the 3GPP access user plane resources of all those MA PDU sessions with user plane resources established on both accesses.

The AMF shall not indicate to the SMF to release the emergency PDU session. If the AMF indicated to the SMF to perform a local release of:

a) all single access non-emergency PDU sessions associated with 3GPP access;

b) all MA PDU sessions without a PDN connection established as a user-plane resource and without user plane resources established on non-3GPP access; and

c) the 3GPP access user plane resources of all those MA PDU sessions with user plane resources established on both accesses;

the network shall behave as if the UE is registered for emergency services over 3GPP access and shall set the emergency registered bit of the 5GS registration result IE to "Registered for emergency services" in the CONFIGURATION UPDATE COMMAND message.

If the AMF is initiating the generic UE configuration update procedure to indicate to a UE which is registered for disaster roaming services, and which has an ongoing emergency PDU session, that the UE is registered for emergency services as described in subclause 4.24, the AMF shall set the emergency registered bit of the 5GS registration result IE to "Registered for emergency services" in the CONFIGURATION UPDATE COMMAND message.

If the AMF:

- updated the "CAG information list" to remove one or more CAG-ID(s) authorized based on the Allowed CAG list for the serving PLMN or an equivalent PLMN; or

- updated the "CAG information list" to set the "indication that the UE is only allowed to access 5GS via CAG cells" for the serving PLMN or an equivalent PLMN which was not set before,

then upon completion of the configuration update procedure and if the UE does not have an emergency PDU session, the AMF shall initiate the release of the N1 NAS signalling connection according to subclause 5.3.1.3.

If the AMF needs to update the truncated 5G-S-TMSI configuration for a UE in NB-N1 mode using control plane CIoT 5GS optimization, the AMF shall include the Truncated 5G-S-TMSI configuration IE in the CONFIGURATION UPDATE COMMAND message.

If the AMF includes a UE radio capability ID deletion indication IE in the CONFIGURATION UPDATE COMMAND message, the AMF shall indicate "registration requested" in the Registration requested bit of the Configuration update indication IE.

If the AMF needs to redirect the UE to EPC as described in subclause 4.8.4A.2, the AMF shall indicate "registration requested" in the Registration requested bit of the Configuration update indication IE and "release of N1 NAS signalling connection not required" in the Signalling connection maintain request bit of the Additional configuration indication IE in the CONFIGURATION UPDATE COMMAND message.

If the UE is not in NB-N1 mode and the UE supports RACS, the AMF may include either a UE radio capability ID IE or a UE radio capability ID deletion indication IE in the CONFIGURATION UPDATE COMMAND message.

During an established 5GMM context, the network may send none, one, or more CONFIGURATION UPDATE COMMAND messages to the UE. If more than one CONFIGURATION UPDATE COMMAND message is sent, the messages need not have the same content.

Upon receipt of the result of the UUAA-MM procedure from the UAS-NF, the AMF shall include:

a) the service-level-AA response with the SLAR field set to:

1) "Service level authentication and authorization was successful" if the AMF detects the UUAA-MM procedure has succeeded; or

2) "Service level authentication and authorization was not successful or service level authorization is revoked" if the AMF detects the UUAA-MM procedure has failed;

b) if the CAA-Level UAV ID is provided by the UAS-NF, the service-level device ID with the value set to the CAA-Level UAV ID; and;

c) if a payload is received from the UAS-NF:

1) the service-level-AA payload with the value set to the payload; and

2) if a payload type associated with the payload is received, the service-level-AA payload type with the values set to the payload type

in the Service-level-AA container IE of the CONFIGURATION UPDATE COMMAND message.

NOTE 5: UAS security information can be included in the UUAA payload by the USS as specified in 3GPP TS 33.256 [24B].

NOTE 6: If the AMF receives the HTTP code set to "4xx" or "5xx" as specified in 3GPP TS 29.500 [20AA] or the AMF detects that the UUAA-MM failure as specified in 3GPP TS 29.256 [21B], then the AMF considers the UUAA-MM procedure has failed.

If the AMF needs to deliver to the UE the UUAA revocation notification received from the UAS-NF, the AMF shall include the service-level-AA response with SLAR set to "Service level authentication and authorization was not successful or service level authorization is revoked" in the Service-level-AA container IE of the CONFIGURATION UPDATE COMMAND message.

If the UE supports UAS services and UAS services become enabled for the UE (e.g. because of the aerial subscription becomes a part of the UE subscription data retrieved from the UDM), the AMF may include the service-level-AA service status indication with UAS field set to "UAS services enabled" in the Service-level-AA container IE of the CONFIGURATION UPDATE COMMAND message.

If the UE supports MINT, the AMF may include the List of PLMNs to be used in disaster condition IE in the CONFIGURATION UPDATE COMMAND message.

If the UE supports MINT, the AMF may include the Disaster roaming wait range IE in the CONFIGURATION UPDATE COMMAND message.

If the UE supports MINT, the AMF may include the Disaster return wait range IE in the CONFIGURATION UPDATE COMMAND message.

NOTE 7: The AMF can determine the content of the "list of PLMN(s) to be used in disaster condition", the value of the disaster roaming wait range and the value of the disaster return wait range based on the network local configuration.

If the UE supports and the network supports and accepts the use of the PEIPS assistance information, and the AMF needs to update the PEIPS assistance information, the AMF may include the PEIPS assistance information in the Updated PEIPS assistance information IE of the CONFIGURATION UPDATE COMMAND message.If the AMF needs to inform the UE that the use of access identity 1 is valid or is no longer valid, then,

1) if the UE supports MPS indicator update via the UE configuration update procedure,the AMF:a)informs the UE by setting the MPS indicator bit of the Priority indicator IE to "Access identity 1 valid" or "Access identity 1 not valid" respectively, in the CONFIGURATION UPDATE COMMAND message. Based on operator policy, the AMF sets the MPS indicator bit in the CONFIGURATION UPDATE COMMAND message based on the MPS priority information in the user's subscription context obtained from the UDM;or .

b) indicates "registration requested" in the Registration requested bit of the Configuration update indication IE in the CONFIGURATION UPDATE COMMAND message;

2) otherwise, the AMF shall indicate "registration requested" in the Registration requested bit of the Configuration update indication IE in the CONFIGURATION UPDATE COMMAND message.

If requested by the TSCTSF (see 3GPP TS 23.501 [8]) and the UE has set the Reconnection to the network due to RAN timing synchronization status change (RANtiming) bit to "Reconnection to the network due to RAN timing synchronization status change supported" in the 5GMM capability IE of the REGISTRATION REQUEST message, the AMF may include the RAN timing synchronization IE with the RecReq bit set to "Reconnection requested" in the CONFIGURATION UPDATE COMMAND message.

-------------------------------------- Next Change --------------------------------------

#### 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;

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;

c) the UE already has stored rejected NSSAI for the failed or revoked NSSAA, the UE shall store the rejected NSSAI for the failed or revoked NSSAA in each of the rejected NSSAIs which are associated with each of the PLMNs in the registration area;

d) the UE already has stored rejected NSSAI for the maximum number of UEs reached, the UE shall store the rejected NSSAI for the maximum number of UEs reached in each of the rejected NSSAIs which are associated with each of the PLMNs in the registration area; and

e) the UE already has stored pending NSSAI, the UE shall store the pending NSSAI in each of the pending 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 an Extended LADN information IE in the CONFIGURATION UPDATE COMMAND message, the UE shall consider the old extended LADN information as invalid and the new extended LADN information as valid, if any; otherwise, the UE shall consider the old extended 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 a new configured NSSAI in the CONFIGURATION UPDATE COMMAND message and no NSSRG information IE, the UE shall delete any stored NSSRG information, if any, as specified in subclause 4.6.2.2.

NOTE 1: When the UE receives the NSSRG information IE, the UE may provide the NSSRG information to lower layers for the purpose of NSAG-aware cell reselection.

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 or SNPN except for the current PLMN or SNPN as specified in subclause 4.6.2.2 and remove all tracking areas from the list of "5GS forbidden tracking areas for roaming" which were added due to rejection of S-NSSAI due to "S-NSSAI not available in the current registration area".

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 or the Extended 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 or the Extended CAG information list IE when received in the HPLMN or EHPLMN;

NOTE 2: When the UE receives the CAG information list IE or the Extended 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 or the Extended 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 or the Extended CAG information list IE when the UE receives the CAG information list IE or the Extended CAG information list IE in a serving PLMN other than the HPLMN or EHPLMN; or

NOTE 3: When the UE receives the CAG information list IE or the Extended 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 or the Extended 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 or the Extended CAG information list IE in a serving PLMN other than the HPLMN or EHPLMN and the CAG information list IE or the Extended 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 or the Extended 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, none of the CAG-ID(s) supported by the current CAG cell is authorized based on the "Allowed CAG list" of the entry for the current PLMN in the received "CAG information list", 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 one or more CAG-ID(s) are authorized based on the "Allowed CAG list" of the entry for the current PLMN in the received "CAG information list", 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 no CAG-ID is authorized based on the "Allowed CAG list" of the entry for the current PLMN in the received "CAG information list" 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 one or more CAG-ID(s) are authorized based on the "allowed CAG list" for the current PLMN in the received "CAG information list", 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 no CAG-ID is authorized based on the "Allowed CAG list" of the entry for the current PLMN in the received "CAG information list"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, a new NSSRG information 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. Additionally, the UE shall:

i) if any Tsor-cm timer(s) were running and have stopped, attempt to obtain service on a higher priority PLMN (see 3GPP TS 23.122 [5]); or

ii) in all other cases, 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:

i) if any Tsor-cm timer(s) were running and have stopped, attempt to obtain service on a higher priority PLMN (see 3GPP TS 23.122 [5]); or

ii) in all other cases, 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, a new NSSRG information or the Network slicing subscription change indication, the UE shall, after the completion of the generic UE configuration update procedure, start a periodic 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, a new NSSRG information or 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 periodic 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, a new NSSRG information 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 periodic 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 subclauses 4.6.1 and 4.6.2.2.

NOTE 4: 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 3GPP TS 24.008 [12], 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.

Editor's note: (WI: eNS\_Ph3, CR 5071) If the UE receives the Alternative NSSAI IE in the CONFIGURATION UPDATE COMMAND message, how the UE stores the alternative NSSAI is FFS.

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, equivalent SNPNs or both, 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 emergency registered bit of the 5GS registration result IE 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 in the Priority indicator IE set to "Access identity 1 valid":

- via 3GPP access; or

- via non-3GPP access if the UE is registered to the same PLMN or SNPN over 3GPP access and non-3GPP access;

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 and its equivalent SNPNs.

Editor's note: (WI: eNS\_Ph3, CR 5207) The procedure how the UE stores the partial allowed S-NSSAI and the partial rejected S-NSSAI, if the UE receives the Parital allowed NSSAI IE and the Partial rejected NSSAI IE of the CONFIGURATION UPDATE COMMAND message, is FFS.

If the UE receives a CONFIGURATION UPDATE COMMAND message with the MPS indicator bit in the Priority indicator IE set to "Access identity 1 valid":

- via non-3GPP access; or

- via 3GPP access if the UE is registered to the same PLMN or SNPN over 3GPP access and non-3GPP access;

the UE shall act as a UE with access identity 1 configured for MPS, as described in subclause 4.5.2, in non-3GPP access of the registered PLMN and its equivalent PLMNs or in the case of SNPN, as described in subclause 4.5.2A, in non-3GPP access of the registered SNPN and its equivalent SNPNs.

The MPS indicator bit in the Priority indicator IE provided in the CONFIGURATION UPDATE COMMAND message is valid:

- in all NG-RAN of the registered PLMN and its equivalent PLMNs, or in the case of SNPN in all NG-RAN of the registered SNPN and its equivalent SNPNs, 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":

- via 3GPP access; or

- via non-3GPP access if the UE is registered to the same PLMN or SNPN over 3GPP access and non-3GPP access; or

- the UE selects a non-equivalent PLMN (or in the case of SNPN, selects a non-equivalent SNPN); or

- in non-3GPP access of the registered PLMN and its equivalent PLMNs, or in the case of SNPN in non-3GPP access of the registered SNPN and its equivalent SNPNs, 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":

- via non-3GPP access; or

- via 3GPP access if the UE is registered to the same PLMN or SNPN over 3GPP access and non-3GPP access; or

- the UE selects a non-equivalent PLMN (or in the case of SNPN, selects a non-equivalentSNPN).

NOTE 5: The term "non-3GPP access" in an SNPN refers to the case where the UE is accessing SNPN services via a PLMN.

Access identity 1 is only applicable while the UE is in N1 mode.

If the UE supporting UAS services is not currently registered for UAS services and the CONFIGURATION UPDATE COMMAND message includes the service-level-AA service status indication in the Service-level-AA container IE with the UAS field set to "UAS services enabled", then the UE passes the service-level-AA service status indication to the upper layers.

If the UE supporting the reconnection to the network due to RAN timing synchronization status change receives the RAN timing synchronization IE with the RecReq bit set to "Reconnection requested" in the CONFIGURATION UPDATE COMMAND message, the UE shall operate as specified in subclauses 5.2.3.2.3, 5.3.1.4, and 5.6.1.1.

-------------------------------------- Next Change --------------------------------------

#### 8.2.19.1 Message definition

The CONFIGURATION UPDATE COMMAND message is sent by the AMF to the UE. See table 8.2.19.1.1.

Message type: CONFIGURATION UPDATE COMMAND

Significance: dual

Direction: network to UE

Table 8.2.19.1.1: CONFIGURATION UPDATE COMMAND message content

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | Extended protocol discriminator | Extended protocol discriminator9.2 | M | V | 1 |
|  | Security header type | Security header type9.3 | M | V | 1/2 |
|  | Spare half octet | Spare half octet9.5 | M | V | 1/2 |
|  | Configuration update command message identity | Message type9.7 | M | V | 1 |
| D- | Configuration update indication | Configuration update indication9.11.3.18 | O | TV | 1 |
| 77 | 5G-GUTI | 5GS mobile identity9.11.3.4 | O | TLV-E | 14 |
| 54 | TAI list | 5GS tracking area identity list9.11.3.9 | O | TLV | 9-114 |
| 15 | Allowed NSSAI | NSSAI9.11.3.37 | O | TLV | 4-74 |
| 27 | Service area list | Service area list9.11.3.49 | O | TLV | 6-114 |
| 43 | Full name for network | Network name9.11.3.35 | O | TLV | 3-n |
| 45 | Short name for network | Network name9.11.3.35 | O | TLV | 3-n |
| 46 | Local time zone | Time zone9.11.3.52 | O | TV | 2 |
| 47 | Universal time and local time zone | Time zone and time9.11.3.53 | O | TV | 8 |
| 49 | Network daylight saving time | Daylight saving time9.11.3.19 | O | TLV | 3 |
| 79 | LADN information | LADN information9.11.3.30 | O | TLV-E | 3-1715 |
| B- | MICO indication | MICO indication9.11.3.31 | O | TV | 1 |
| 9- | Network slicing indication | Network slicing indication9.11.3.36 | O | TV | 1 |
| 31 | Configured NSSAI | NSSAI9.11.3.37 | O | TLV | 4-146 |
| 11 | Rejected NSSAI | Rejected NSSAI9.11.3.46 | O | TLV | 4-42 |
| 76 | Operator-defined access category definitions | Operator-defined access category definitions9.11.3.38 | O | TLV-E | 3-8323 |
| F- | SMS indication | SMS indication9.11.3.50A | O | TV | 1 |
| 6C | T3447 value | GPRS timer 39.11.2.5 | O | TLV | 3 |
| 75 | CAG information list | CAG information list9.11.3.18A | O | TLV-E | 3-n |
| 67 | UE radio capability ID | UE radio capability ID9.11.3.68 | O | TLV | 3-n |
| A- | UE radio capability ID deletion indication | UE radio capability ID deletion indication9.11.3.69 | O | TV | 1 |
| 44 | 5GS registration result | 5GS registration result9.11.3.6 | O | TLV | 3 |
| 1B | Truncated 5G-S-TMSI configuration | Truncated 5G-S-TMSI configuration9.11.3.70 | O | TLV | 3 |
| C- | Additional configuration indication | Additional configuration indication9.11.3.74 | O | TV | 1 |
| 68 | Extended rejected NSSAI | Extended rejected NSSAI9.11.3.75 | O | TLV | 5-90 |
| 72 | Service-level-AA container | Service-level-AA container9.11.2.10 | O | TLV-E | 6-n |
| 70 | NSSRG information | NSSRG information9.11.3.82 | O | TLV-E | 7-4099 |
| 14 | Disaster roaming wait range | Registration wait range9.11.3.84 | O | TLV | 4 |
| 2C | Disaster return wait range | Registration wait range9.11.3.84 | O | TLV | 4 |
| 13 | List of PLMNs to be used in disaster condition | List of PLMNs to be used in disaster condition9.11.3.83 | O | TLV | 2-n |
| 71 | Extended CAG information list | Extended CAG information list9.11.3.86 | O | TLV-E | 3-n |
| 1F | Updated PEIPS assistance information | PEIPS assistance information9.11.3.80 | O | TLV | 3-n |
| 73 | NSAG information | NSAG information9.11.3.87 | O | TLV-E | 9-3143 |
| E- | Priority indicator | Priority indicator9.11.3.91 | O | TV | 1 |
| 4B | RAN timing synchronization | RAN timing synchronization9.11.3.95 | O | TLV | 3 |
| 78 | Extended LADN information | Extended LADN information9.11.3.96 | O | TLV-E | 3-1787 |
| 4C | Alternative NSSAI | Alternative NSSAI9.11.3.97 | O | TLV | 7-n |
| TBD | Partial allowed NSSAI | Partial network NSSAI9.11.3.XX | O | TLV-E | 13-n |
| TBD | Partial rejected NSSAI | Partial network NSSAI9.11.3.XX | O | TLV-E | 13-n |

-------------------------------------- Next Change --------------------------------------

#### 8.2.19.X Partial allowed NSSAI

This IE shall be included by the AMF to inform the UE if one or more S-NSSAIs that are just become partial allowed NSSAI.

-------------------------------------- Next Change --------------------------------------

#### 8.2.19.Y Partial rejected NSSAI

This IE shall be included by the AMF to inform the UE if one or more S-NSSAIs that are just become partial rejected NSSAI.

-------------------------------------- Next Change --------------------------------------

#### 9.11.3.Z Partial network NSSAI

The purpose of the Partial network NSSAI information element is to deliver one or more S-NSSAIs in a set of tracking areas of a registration area from the network to the UE.

The coding of the information element contains list of one or more S-NSSAIs as defined as the value part of the S-NSSAI information element defined in clause 9.11.2.8 and any of types of tracking area identity lists as defined in clause 9.11.3.9, when the different TAIs are sharing the same PLMN identity.

The Partial network NSSAI information element is coded as shown in figure 9.11.3.X.1, figure 9.11.3.X.2, and table 9.11.3.X.1.

The Partial network NSSAI information element is a type 6 information element, with a minimum length of 13 octets. Each list can contain a maximum of 16 different tracking area identities.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Partial network NSSAI IEI | octet 1 |
| Length of partial network NSSAI contents | octet 2 |
| octet 3 |
| S-NSSAI list 1 | octet 4octet i |
| Partial tracking area identity list 1 | octet i+1octet j |
| … | octet j+1octet l |
| S-NSSAI list n | octet l+1octet k |
| Partial tracking area identity list n | octet k+1octet m |

Figure 9.11.3.X.1: Partial network NSSAI information element

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| Length of S-NSSAI list | octet j+1 |
| S-NSSAI 1 | octet j+2octet s |
| … | octet s+1octet t |
| S-NSSAI n | octet t+1octet u |

Figure 9.11.3.X.2: S-NSSAI list

Table 9.11.3.X.1: Partial network NSSAI information element

|  |
| --- |
| Length of partial network NSSAI contents (octet 2 and octet 3) |
|  |
| This field indicates the length of the included partial network NSSAI contents. |
|  |
| Length of S-NSSAI (octet j+1) |
|  |
| This field indicates the length of S-NSSAI list for the partial network NSSAI content. |
|  |

-------------------------------------- End of Changes --------------------------------------