**3GPP TSG-CT WG4 Meeting #110-eC4-223129**

**E-Meeting, 12th – 20th May 2022**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.532** | **CR** | **0021** | **rev** | **-** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Adding SNSSAI to CreateReqData | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5MBS | | | | |  | ***Date:*** | | | 2022-05-04 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***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 can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | TS 23.247, clause 7.3.1 "MBS Session Start for Broadcast" specifies that MB-SMF receives Nmbsmf\_MBSSession\_Create Request (CreateReqData/ ExtMbsSession/MbsSession) from NEF/MBSF and sends Namf\_MBSBroadcast\_ContextCreate (ContextCreateReqData) to AMF. The AMF in turn sends N2 message request (i.e. BROADCAST SESSION SETUP REQUEST) to NG-RAN. TS 38.413 specifies in clause 9.2.16.1 "BROADCAST SESSION SETUP REQUEST" that 'S-NSSAI' is a mandatory parameter. Therefore, 'snssai' attribute shall be delivered to the AMF. Generally speaiking, NSSAI shall be used end-to-end and trerefore shall always be provided.  Nmbsmf\_MBSSession\_Create Request however specifies that 'snssai' attribute is optional in the CreateReqData/ ExtMbsSession/MbsSession data type, which contradicts to the requirement in TS 38.413. The MbsSession data type is used by many APIs and therefore it looks appropriate to add new 'snssai' attribute to CreateReqData/ ExtMbsSession/MbsSessionExtension data type. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | New 'snssai' attribute is added to the MBSSession Create service operations (CreateReqData/ExtMbsSession/MbsSessionExtension). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | A requirement in TS 38.413 cannot be fulfilled. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.3.2.2.1, 6.2.6.2.4, A.3. | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 offers backward compatible changes to Nmbsmf\_MBSSession API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev1: DNN relates changes and amendments are removed. | | | | | | | | |

**\*\*\*\*\*\*\***

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

#### 5.3.2.2 Create

##### 5.3.2.2.1 General

The Create service operation shall be used to create a multicast or a broadcast MBS session, or for a location dependent MBS session, the part of an MBS Session within an MBS service area.

NOTE: For a location dependent MBS service, one Create service operation is performed per MBS service area of the MBS session.

It is used in the following procedures:

- MBS Session Creation with or without PCC (see clauses 7.1.1.2 and 7.1.1.3 of 3GPP TS 23.247 [14]); and

- MBS Session Start for Broadcast (see clause 7.3.1 of 3GPP TS 23.247 [14]).

For a location dependent MBS service, TMGI shall be used to identify the MBS Session within 5GS. Different MBS Service Areas shall use different SSM (source specific IP multicast) addresses if multicast transport is used over N6mb or Nmb9.

The NF Service Consumer (e.g. NEF, MBSF or AF) shall create an MBS session, or for a location dependent MBS session, the part of an MBS Session within an MBS service area, by using the HTTP POST method as shown in Figure 5.3.2.2.1-1.



Figure 5.3.2.2.1-1: MBS session creation

1. The NF Service Consumer shall send a POST request (CreateReqData structure) targeting the MBS Sessions collection resource of the MB-SMF. The payload body of the POST request shall contain the following information:

- MBS Session ID (source specific IP multicast address or TMGI) or TMGI allocation request indication; and

- service type (either multicast or broadcast service);

- the locationDependent IE set to true, for a location dependent MBS service;

- MBS Service Area, for a location dependent MBS service or for a Local MBS service.

SNSSAI that is provided by an AF, if it is in the trust domain, or by the NEF, if the AF is not in the trust domain.

The payload body of the POST request may further contain the following parameters:

- for a multicast or a broadcast MBS session:

- ingress transport address request indication, if the allocation of an ingress transport address is requested;

- DNN;

- MBS activation time;

- MBS termination time;

- service description;

- QoS information;

- an MBS session status subscription request, including the list of MBS session events requested to be subscribed, a Notify Correlation ID, the Notification URI where to receive MBS session status notifications and the NF instance ID of the subscribing NF, for subscribing to notifications of events about the MBS session;

- indication that a policy authorization is provided for the MBS session to the PCF;

- for a multicast MBS session:

- session activity status (active/inactive);

- indication that any UE may join the MBS session, for a multicast MBS session.

2a. On success, the MB-SMF shall reserve ingress resources for the MBS session and shall return a "201 Created" response. The "Location" header shall be present and shall contain the URI of the created resource. The payload body of the POST response (CreateRspData structure) shall contain a representation of the created MBS session, including the following parameters:

- the TMGI allocated to the MBS session and its expiration time, if the request included a TMGI allocation request;

- the Area Session ID allocated by the MB-SMF for the MBS session and MBS service area, for a location-dependent MBS session;

- MB-UPF tunnel information, if unicast transport is used over N6mb/Nmb9; and

- a representation of the created MBS session status subscription, including the list of MBS session events successfully subscribed, the URI of the created subscription,and the expiry time after which the subscription becomes invalid, if the Create request includes the subscription to events about the MBS session and the subscription was created successfully.

For a location dependent MBS service, the MB-SMF shall allocate a unique Area Session ID within the MBS session for the MBS Service Area.

2b. On failure or redirection, one of the HTTP status code listed in Table 6.2.3.2.3.1-3 shall be returned. For a 4xx/5xx response, the message body shall contain a ProblemDetails structure with the "cause" attribute set to one of the application errors listed in Table 6.2.3.2.3.1-3.

\* \* \* 2nd Change \* \* \* \*

##### 6.2.6.2.4 Type: MbsSessionExtension

Table 6.2.6.2.4-1: Definition of type MbsSessionExtension

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| policyAuthInd | boolean | O | 0..1 | Policy Authorization Indication  When present, it shall be set as follows:  - true: policy authorization is provided for the MBS session to the PCF;  - false (default): no policy authorization provided |  |
| snssai | Snssai | M | 1 | This IE shall be included, if available and indicates the S-NSSAI of an MBS session. NOTE 1. |  |

\* \* \* 3rd Change \* \* \* \*

## A.3 Nmbsmf\_MBSSession API

openapi: 3.0.0

info:

title: Nmbsmf-MBSSession

version: 1.0.0-alpha.5

description: |

<API Name> Service.

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## Skipped for clarity ##

MbsSessionExtension:

description: MB-SMF API specific extensions to the MbsSession common data type

type: object

properties:

policyAuthInd:

type: boolean

default: false

snssai:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/snssai'

required:

- snssai

## Skipped for clarity ##

\* \* \* End of Changes \* \* \* \*