**3GPP TSG-CT WG4 Meeting #110-eC4-223041**

**E-Meeting, 12th – 20th May 2022**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.518** | **CR** | **0730** | **rev** | **-** | **Current version:** | **17.5.0** |  |
|  | | | | | | | | |
| *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 ContextCreateReqData | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5MBS | | | | |  | ***Date:*** | | | 2022-04-29 |
|  |  | | | |  | |  | | |  |
| ***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 AMF. Generally speaimng, NSSAI shall be used end-to-end and trerefore shall always be provided.  A related problem is, Nmbsmf\_MBSSession\_Create Request specifies that 'snssai' attribute is optional in the 'MbsSession' data type, which in turn means MB-SMF may or may not be able to deliver these to the AMF. CR0021-TS29.532 (C4-223129) addresses this issue. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | New 'snssai' attribute is added to the broadcast MBS session context creation operation (ContextCreateReqData). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | A requirement in TS 38.413 cannot be fulfilled. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.6.2.2, 6.5.6.2.2, A.6. | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This CR offers backward compatible changes to Namf\_MBSBroadcast API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev1: DNN relates amendments are removed. | | | | | | | | |

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

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

#### 5.6.2.2 ContextCreate

The ContextCreate service operation shall be used by the NF Service Consumer (e.g. MB-SMF) to request the AMF to create a broadcast MBS session context.

It is used in the following procedures:

- MBS Session Start for Broadcast (see clause 7.3.1 of 3GPP TS 23.247 [55]);

- Support for Local Broadcast Service (see clause 7.3.4 of 3GPP TS 23.247 [55]).

There shall be only one broadcast MBS session context per MBS session, or per MBS session and Area Session ID for an MBS session with Location dependent Broadcast service.

The NF Service Consumer (e.g. MB-SMF) shall create a broadcast MBS session context by using the HTTP POST method as shown in Figure 5.6.2.2-1.



Figure 5.6.2.2-1: Broadcast MBS session context creation

1. The NF Service Consumer shall send a POST request targeting the Broadcast MBS session contexts collection resource of the AMF. The payload body of the POST request shall contain the following information:

- MBS Session ID (i.e. TMGI, or TMGI and NID for an MBS session in an SNPN);

- Area Session ID, if this is a Location dependent broadcast MBS service;

- MBS service area;

- N2 MBS Session Management container (see MBS Session Information Setup Request Transfer IE in 3GPP TS 38.413 [12]);

- Notification URI where to be notified about the status change of the broadcast MBS session context;

- SNSSAI.

The NF Service Consumer may also include the maxResponseTime IE in the request to indicate the maximum response time to receive information about the completion of the Broadcast MBS session establishment.

2a. On success, "201 Created" shall be returned. The AMF should respond success when it receives the first successful response from the NG-RAN(s). The 201 Created response may contain one or more N2 MBS Session Management containers, if additional information (e.g. MBS Session Information Response Transfer IE or MBS Session Information Failure Transfer IE in 3GPP TS 38.413 [12]) needs to be transferred to the MB-SMF. If the AMF received the NG-RAN responses from all involved NG-RAN(s), e.g. if the broadccast MBS session involves only one NG-RAN, the AMF shall include an indication of completion of the operation in all NG-RANs in the 201 Created response.

Upon receipt of subsequent responses from other NG-RANs after sending the 201 Created response, if additional information (e.g. MBS Session Information Response Transfer IE or MBS Session Information Failure Transfer IE in 3GPP TS 38.413 [12]) needs to be transferred to the MB-SMF, the AMF shall transfer such information by sending one or more Namf\_MBSBroadcast\_ContextStatusNotify requests to the MB-SMF. A Namf\_MBSBroadcast\_ContextStatusNotify request may include a list of N2 MBS Session Management containers received from different NG-RANs. When the AMF receives the response from all NG-RANs, the AMF shall include an indication of the completion of the operation in the Namf\_MBSBroadcast\_ContextStatusNotify request.

If the AMF does not receive responses from all NG-RAN nodes before the maximum response time elapses since the reception of the Namf\_MBSBroadcast\_ContextCreate Request, then the AMF should send one Namf\_MBSBroadcast\_ContextStatusNotify request indicating the incompletion of the Broadcast MBS session establishment.

2b. On failure or redirection, one of the HTTP status code listed in Table 6.5.3.2.3.1-3 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 6.5.3.2.3.1-3.

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

##### 6.5.6.2.2 Type: ContextCreateReqData

Table 6.5.6.2.2-1: Definition of type ContextCreateReqData

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| mbsSessionId | MbsSessionId | M | 1 | MBS Session ID |
| areaSessionId | AreaSessionId | C | 0..1 | Area Session ID  This IE shall be present if this is a Location dependent broadcast MBS service. |
| mbsServiceArea | MbsServiceArea | M | 1 | MBS Service Area |
| n2MbsSmInfo | N2MbsSmInfo | M | 1 | This IE shall be present and shall contain N2 MBS Session Management related information.(see clause 6.5.6.4). |
| notifyUri | Uri | M | 1 | This IE shall contain the notification URI where to be notified about the status change of the broadcast MBS session context. |
| maxResponseTime | DurationSec | O | 0..1 | Maximum response time (in seconds) to receive information about the completion of the Broadcast MBS session establishment. |
| snssai | Snssai | M | 1 | This IE shall be included, if available and indicates the S-NSSAI of an MBS session. |

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

## A.6 Namf\_MBSBroadcast API

openapi: 3.0.0

info:

version: 1.0.0-alpha.2

title: Namf\_MBSBroadcast

description: |

AMF MBSBroadcast Service

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externalDocs:

description: 3GPP TS 29.518 V17.5.0; 5G System; Access and Mobility Management Services

url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.518/'

## Skipped for clarity ##

#

# STRUCTURED DATA TYPES

#

ContextCreateReqData:

description: Data within ContextCreate Request

type: object

properties:

mbsSessionId:

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

areaSessionId:

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

mbsServiceArea:

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

n2MbsSmInfo:

$ref: '#/components/schemas/N2MbsSmInfo'

notifyUri:

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

maxResponseTime:

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

snssai:

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

required:

- mbsSessionId

- mbsServiceArea

- ngapData

- notifyUri

- snssai

## Skipped for clarity ##

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