**3GPP TSG-CT WG3 Meeting #125 *C3-225313***

**Toulouse, France, 14th - 18th, November, 2022**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.537** | **CR** | **0011** | **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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Correction to Npcf\_MBSPoliyControl\_Create operation | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5MBS | | | | |  | ***Date:*** | | | 2022-11-18 |
|  |  | | | |  | |  | | |  |
| ***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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The MBS service information shall be provided to the PCF if it was received by the MB-SMF; otherwise, the PCF can’t make policy decision.  The PCF may interact with the BSF by invoking the Nbsf\_Management\_Register service operation to check whether there is already a PCF serving the MBS Session. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | MBS Service Information shall be provided if available.  The PCF may interact with the BSF by invoking the Nbsf\_Management\_Register service operation to check whether there is already a PCF serving the MBS Session. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The PCF can’t make policy decision. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 does not impact the OpenAPI file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* \* Start of Changes \* \* \* \*

##### 5.2.2.2.2 MBS Policy Association Establishment



Figure 5.2.2.2.2-1: Procedure for MBS Policy Association establishment

1. In order to request the creation of an MBS Policy Association, the NF service consumer (e.g. MB-SMF) shall send an HTTP POST request to the PCF, as described in step 1of figure 5.2.2.2.2-1, with the request body containing the MbsPolicyCtxtData data structure that shall contain:

- the identifier of the concerned MBS Session, within the "mbsSessionId" attribute;

- the MBS Service Information, within the "mbsServInfo" attribute if available; and

- the list of supported features, if feature negotiation needs to take place, within the "suppFeat" attribute;

and may contain:

- the DNN of the MBS session, within the "dnn" attribute; and

- the S-NSSAI of the MBS session, within the "snssai" attribute.

2. Upon reception of the HTTP POST request from the NF service consumer:

- if MBS Service Information is present within the "mbsServInfo" attribute, then:

- if the PCF is not already serving the MBS Session, the PCF may interact with the BSF by invoking the Nbsf\_Management\_Register service operation, as specified in clause 4.2.2.4 of 3GPP TS 29.521 [21], to check whether there is already a PCF serving the MBS Session;

NOTE 1: Check whether there is already a PCF serving the MBS Session is not necessary in a deployment with a single PCF.

- if there is a PCF already serving the MBS Session, the PCF shall respond to the NF service consumer with an HTTP "308 Permanent Redirection" status code including an HTTP Location header field containing the "apiRoot" (e.g. FQDN or IP address) of the PCF currently serving the MBS Session;

- otherwise:

- the PCF may interact with the UDR to retrieve MBS policy authorization information for the MBS session, as specified in 3GPP TS 29.519 [20]; and

- the PCF shall perform MBS policy authorization based on the received MBS Service Information, and the operator policies that are pre-configured at the PCF and/or the MBS Session policy control data retrieved from the UDR;

- if MBS policy authorization is successful, the PCF shall derive the required MBS policies (e.g. QoS parameters) and determine whether they are allowed or not;

- if the required MBS policies are allowed:

- the PCF shall store the generated MBS policies for the MBS session together with the corresponding MBS session ID; and

- if MBS policy authorization is not successful or the required MBS policies are not allowed, the PCF shall reject the request with an appropriate error response as specified below in this clause;

NOTE 2: If MBS Service Information is not present in the received request, then the PCF has previously determined and generated the required MBS policies for the MBS session as specified in clause 5.3.

- upon success, the PCF shall:

- create a new "Individual MBS Policy Association" resource; and

- respond to the NF service consumer with an HTTP "201 Created" status code including a Location header field containing the URI of the created "Individual MBS Policy Association" resource, and the response body including the MbsPolicyData data structure that shall contain:

- the received input parameters within the request body, within the "mbsPolicyCtxtData" attribute;

- the provisioned MBS Policy Decision, within the "mbsPolicies" attribute; and

- the list of supported features, if feature negotiation is taking place, within the "suppFeat" attribute;

- if errors occur when processing the HTTP POST request, the PCF shall apply the error handling procedures specified in clause 6.1.7;

- if MBS Service Information is provided, but it is invalid, incorrect or insufficient for the PCF to perform MBS policy authorization, the PCF shall reject the request with an HTTP "400 Bad Request" response message including the the ProblemDetails data structure with the "cause" attribute set to "INVALID\_MBS\_SERVICE\_INFO";

- if MBS Service Information is provided, but the MBS IP flow(s) description provided within the MBS Service Information cannot be handled by the PCF because the restrictions defined in clause 5.3.8 of 3GPP TS 29.214 [19] are not respected, the PCF shall reject the request with an HTTP "400 Bad Request" status code including the ProblemDetails data structure with the "cause" attribute set to "FILTER\_RESTRICTIONS\_NOT\_RESPECTED";

- if from an application level point of view, the provided set of input parameters is incomplete, erroneous or missing necessary information for the PCF to perform MBS policy control, the PCF shall reject the request with an HTTP "400 Bad Request" response message including the ProblemDetails data structure with "cause" attribute set to the "ERROR\_INPUT\_PARAMETERS" application error;

- if MBS Service Information is provided, but it is not authorized, the PCF shall reject the request with an HTTP "403 Forbidden" status code including the MbsExtProblemDetails data structure that shall contain:

- the ProblemDetails data structure with the "cause" attribute set to "MBS\_SERVICE\_INFO\_NOT\_AUTHORIZED";

and may contain:

- the AcceptableMbsServInfo data structure including the MBS Service Information that is acceptable for the PCF;

and

- if the PCF denies the creation of the "Individual MBS Policy" resource based on local configuration and/or operator policies, the PCF shall reject the request within an HTTP "403 Forbidden" status code including the "cause" attribute of the ProblemDetails data structure set to "MBS\_POLICY\_CONTEXT\_DENIED". At the reception of this error code and based on the internally configured failure actions, the NF service consumer may reject or allow, by applying local policies, the establishment of the corresponding MBS session.

\* \* \* \* End of change \* \* \* \*