**3GPP TSG CT WG3 Meeting #137 *C3-245093***

**Hefei, CN, 14th – 18th October, 2024**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **29.522** | **CR** | **1360** | **rev** | **-** | **Current version:** | **19.0.0** |  |
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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 |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:***  | 5G Femto parameter provision procedure  |
|  |  |
| ***Source to WG:*** | Nokia, ZTE |
| ***Source to TSG:*** | CT3 |
|  |  |
| ***Work item code:*** | 5G\_Femto |  | ***Date:*** | 2024-10-07 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-19 |
|  | *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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
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| ***Reason for change:*** |  Stage-2 (SA2) agreed CR related to 5G Femto parameters provisioning with S2-2409520 (CR#4987).Accordingly, a new clause for the procedure describing the 5G Femto parameters provisioning is defined. A new API – FemtoParamProvision API is defined for this purpose and the Nnef\_ParameterProvision service defined in stage-2 procedure shall use the FemtoParamProvision API for:- 5G Femto Parameters provisioning. |
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| ***Summary of change:*** | A new clause for the procedure describing the 5G Femto parameters provisioning is defined.  |
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| ***Consequences if not approved:*** | Missing stage-3 implementation for the agreed Stage-2 requirements related to 5G Femto parameters provision feature. |
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| ***Clauses affected:*** | 4.4.42 (new) |
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|  | **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 any open API defined in this specification |
|  |  |
| ***This CR's revision history:*** |  |

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

### 4.4.42 Procedures for 5G Femto Parameters Provisioning

#### 4.4.42.1 General

The procedures described in the clauses below are used by an AF (e.g. authorized Femto administrator/owner) to interact with the 5GC for 5G Femto Parameters Provisioning, in order to carry out one or more of the following procedures:

- 5G Femto parameters provisioning procedures (see clause 4.15.6.3h of 3GPP TS 23.502 [2]).

In order to request the creation of a 5G Femto Parameters Provisioning:

- the AF shall trigger the FemtoParamProvision API by sending an HTTP POST request to the NEF targeting the "Femto Parameters Provisionings" collection resource, with the request body including the FemtoPpData data structure that shall include:

- within the "afId" attribute, the identifier of the AF that is sending the request;

- within the "femtoInfos" attribute, the femto information for provisioning; and

may include:

- within the "suppFeat" attribute, the features supported by the AF, if applicable (i.e., when the feature negotiation needs to take place);

- the NEF shall then check whether the AF is authorized to perform this operation or not;

- if the AF is authorized, the NEF shall trigger the Nudm\_ParameterProvision service API of the UDM to request the provisioning of the received 5G Femto Parameters Provisioning data as specified in 3GPP TS 29.503 [17]; and

- upon reception of a successful response from the UDM as defined in 3GPP TS 29.503 [17] and successful processing of the request, the NEF shall respond to the AF with an HTTP "201 Created" status code including an HTTP "Location" header field containing the URI of the created resource, and the response body including a representation of the created "Individual Femto Parameters Provisioning" resource within the FemtoPpData data structure.

In order to request the update of an existing "Individual Femto Parameters Provisioning" resource:

- the AF shall trigger the FemtoParamProvision API by sending to the NEF either:

- an HTTP PUT request targeting the corresponding "Individual Femto Parameters Provisioning" resource with the request body including the updated representation of the resource within the FemtoPpData data structure; or

- an HTTP PATCH request targeting the corresponding "Individual Femto Parameters Provisioning" resource with the request body including the requested modifications to the resource within the FemtoPpDataPatch data structure;

- after authorizing the request, the NEF shall interact with the UDM via the the Nudm\_ParameterProvision service API to request the provisioning of the received updated 5G Femto parameters provisioning data; and

- upon reception of a successful response from the UDM as defined in 3GPP TS 29.503 [17] and successful processing of the request, the NEF shall respond to the AF with either:

- an HTTP "200 OK" status code with the response body containing a representation of the updated "Individual Femto Parameters Provisioning" resource within the FemtoPpData data structure; or

- an HTTP "204 No Content" status code.

In order to request the deletion of an existing "Individual Femto Parameters Provisioning" resource:

- the AF shall trigger the FemtoParamProvision API by sending an HTTP DELETE request targeting the corresponding "Individual Femto Parameters Provisioning" resource to the NEF;

- after authorizing the request, the NEF shall interact with the UDM via the the Nudm\_ParameterProvision service API as defined in 3GPP TS 29.503 [17] to request the deletion of the correponding 5G Femto parameters provisioning data; and

- upon reception of a successful response from the UDM as defined in 3GPP TS 29.503 [17] and successful processing of the request, the NEF shall respond to the AF with an HTTP "204 No Content" status code.

On failure or if the NEF receives an error response from the UDM, the NEF shall take proper error handling actions, as specified in clause 5.38.7, and respond to the AF with an appropriate error status code.

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