3GPP TSG CT WG3 Meeting #137 C3-245368

Hefei, CN, 14 - 18 October, 2024 (revision of xx-yyxxxx)

**3GPP TSG-CT WG4 Meeting #125C4-244322**

Hefei, P.R.China; 14 – 18 October 2024 (revision of xx-yyxxxx)

**Source: NTT DOCOMO**

**Title: New WID on CT aspects of 5G NR Femto**

**Document for: Endorsement**

**Agenda Item: 19.2**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

Title: CT aspects of 5G NR Femto

Acronym: 5G\_Femto

Unique identifier: 1060002

Potential target Release: Rel-19

# 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes |  |  |  | X |  |
| No | X | X | X |  |  |
| Don't know |  |  |  |  |  |

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

|  |  |
| --- | --- |
|  | Study  |
|  | Normative – Stage 1 |
|  | Normative – Stage 2 |
| X | Normative – Stage 3 |
|  | Normative – Other\* |

**\* Other = e.g. testing**

## 2.2 Parent Work Item

For a brand-new topic, use “N/A” in the table below. Otherwise indicate the parent Work Item.

|  |
| --- |
| Parent Work / Study Items  |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| 5G\_Femto | SA2 | 1040028 | System aspects of 5G NR Femto |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 1020002 | Study on System aspects of 5G NR Femto | Rel-19 SA2 study item |
| 1030028 | Study on security aspects of 5G NR Femto Document for: Approval | Rel-19 SA3 study item |
| 1050125 | Additional topological enhancements for NR | Rel-19 RAN3 work item |
| 1051125 | Core part: Additional topological enhancements for NR | Rel-19 RAN3 work item |
| 1020082 | Study on additional topological enhancements for NR | Rel-19 RAN3 study item |

**Dependency on non-3GPP (draft) specification:**

# 3 Justification

Based on SA2 Rel-19 WID (5G\_Femto, UID 1040028), it is concluded that the 5GS needs to support provisioning of 5G Femto information by the 5G Femto CAG owner or an authorized administrator.

Also, in order to support access to local services, NR Femto nodes reuse LADN and edge computing functionality.

# 4 Objective

The objective of this WID is to support 5G Femto information provisioning by the CAG owner or an authorized administrator for non-roaming scenarios and local services access.

For CT3, the expected work includes:

a) updating the NEF northbound interface to provide CAG information for 5G Femto by the CAG owner or an authorized administrator for non-roaming cases;

For CT4, the expected work includes:

a) updating UDM and UDR service to support 5G Femto information provisioning;

b) storing the new subscription data of 5G Femto information;

c) potential impact on UPF/N4 to support the local services access.

# 5 Expected Output and Time scale

|  |
| --- |
| New specifications {One line per specification. Create/delete lines as needed} |
| Type  | TS/TR number | Title | For info at TSG#  | For approval at TSG# | Rapporteur |
| N/A |  |  |  |  |  |

|  |
| --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| 29.244 | Potential update the interface to support local services access | TSG CT #109 (September 2025) | CT4 |
| 29.502 | Potential update the interface to support local services access | TSG CT #109 (September 2025) | CT4 |
| 29.503 | Update the UDM service(Nudm\_SDM\_Notification, Nudm\_ParameterProvision) to support 5G Femto information provisioning | TSG CT #109 (September 2025) | CT4 |
| 29.504 | Potential update the UDR service to support 5G Femto information provisioning | TSG CT #109 (September 2025) | CT4 |
| 29.505 | Potential update the UDR service for the subscription data to support 5G Femto information provisioning | TSG CT #109 (September 2025) | CT4 |
| 29.522 | Update the NEF northbound interface to provide CAG information for 5G Femto by the CAG owner or an authorized administrator for non-roaming case. | TSG CT #109 (September 2025) | CT3 |
| 29.571 | Add the new definition of common data types to support 5G Femto information provisioning | TSG CT #109 (September 2025) | CT4 |

# 6 Work item Rapporteur(s)

Dojiri, Shunsuke, NTT DOCOMO, dojiri@nttdocomo.com

# 7 Work item leadership

CT4

# 8 Aspects that involve other WGs

Potential security impact to be covered by SA3.

# 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| NTT DOCOMO |
| ZTE |
| Verizon |
| Rakuten Mobile |
| Samsung |
| NEC |
| Nokia |