**3GPP TSG- Meeting # *\_rev1***

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** | **1** | **Current version:** |  |  |
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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:*** |  | | | | | | | | | |
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| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | S6 | | | | | | | | | |
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| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
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| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *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)* | |
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| ***Reason for change:*** | | Based on the Editor's note in the Clause 6.2, the use of SBA terminology in the clause 6.2 needs to be modified with the basic assumptions as follows:   * EDGEAPP specifies its own service-based representaiton as in figure 6.2-1 * The SBA is as defined in TS 23.501 of SA WG2 * EDGEAPP entities (EES, ECS, EEC, EAS) do not use the SBA for interactions among themselves * EDGEAPP entities may use the SBA as AFs for utilization of 5GC NF Services (NEF, SCEF+NEF, PCF) via Npcf and Nnef * EDGEAPP entities may use CAPIF as API invokers for utilization of CN Northbound APIs (SCEF, SCEF+NEF/NEF) via Cccf and Caef | | | | | | | | |
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| ***Summary of change:*** | | Resolve and delete the Edtiros note in the Clause 6.2 for the use of SBA terminology with the following modifications:   * fixed the terminology of the 'service-based representation' for interactions among EDGEAPP entitiies * fixed the terminology of the 'SBA' for interactions with 5GC NFs * fixed CAPIF interface names for interations with AEFs * deleted redundant descriptions for figure 6.2-1 | | | | | | | | |
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| ***Consequences if not approved:*** | | The Editor's note in the clause 6.2 cannot be resolved and the incorrect use of the terminologies may cause misleading in the stage-3 implementation of EDGEAPP. | | | | | | | | |
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| ***Clauses affected:*** | | 6.2 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  |  | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  |  | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  |  | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | |

*1st CHANGE*

6.2 Architecture

This clause describes the architecture for enabling edge applications in the following representations:

- A service-based representation, where the Edge Enabler Layer functions (e.g. ECS) enable other authorized Edge Enabler Layer functions (e.g. EES) to access their services. This representation also includes point-to-point reference points where necessary;

- A service-based representation as specified in 3GPP TS 23.501 [2], where the Network Functions (e.g. NEF) enable authorized Edge Enabler Layer functions (e.g. ECS) i.e. Application Functions, to access their services;

- A service-based representation, where the Core Network Northbound APIs as specified in 3GPP TS 23.501 [2] and 3GPP TS 23.502 [3], are utilized by authorized Edge Enabler Layer functions via CAPIF core function specified in 3GPP TS 23.222 [6]; and

- A reference point representation, where existing interactions between any two functions (e.g. EES, ECS) is shown by an appropriate point-to-point reference point (e.g. EDGE-6, EDGE-7).

Edge Enabler Layer functions shown in the service-based representation of the edge architecture shall only use service-based interfaces for their interactions.

Figure 6.2-1 illustrates the service based representation of architecture for enabling edge applications.

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**Figure 6.2-1: Architecture for enabling edge applications - service-based representation**

NOTE: The EEC function and EAS function in figure 6.2-1 do not expose any service to the other functions.

Editor's note: How the possible deployment models of the ECS affect the above representation is FFS.

The mechanisms for service discovery in the service-based representation depicted in figure 6.2-1 are as follows:

- The EES discovers the ECS via pre-configuration or by using CAPIF as specified in 3GPP TS 23.222 [6];

- The EAS discovers the EES via pre-configuration or by using CAPIF as specified in 3GPP TS 23.222 [6];

- The EAS discovers the other EAS(s) as specified in clause 8.8.3.2;

- The EEC discovers the ECS as specified in clause 8.3.2; and

- The EEC discovers the EES via service provisioning as specified in clause 8.3.3.

Figure 6.2-2 illustrates the service-based representation for utilization of the 5GS network services based on the SBA specified in 3GPP TS 23.501 [2].

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**Figure 6.2-2: Utilization of 5GS network services based on the 5GS SBA – service based representation**

The ECS, EES and EAS acts as AFs for consuming network services directly from the 3GPP 5G Core Network entities over the Service Based Architecture specified in 3GPP TS 23.501 [7].

Figure 6.2-3 illustrates the service-based representation for utilization of the Core Network (5GC, EPC) northbound APIs via CAPIF.

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**Figure 6.2-3: Utilization of Core Network Northbound APIs via CAPIF – service based representation**

The ECS, EES and EAS act as authorized API invoker to consume services from the Core Network (5GC, EPC) northbound API entities like SCEF, NEF, SCEF+NEF which act as API Exposing Function as specified in 3GPP TS 23.222 [6].

The mechanism for northbound APIs discovery using the service-based interfaces depicted in figure 6.2-3 is as specified in 3GPP TS 23.222 [6].

Figure 6.2-4 illustrates the reference point representation of the architecture for edge enabling applications.

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**Figure 6.2-4: Architecture for enabling edge applications - reference points representation**

The EDN is a local Data Network. EAS(s) and the EES are contained within the EDN. The ECS provides configurations related to the EES, including details of the EDN hosting the EES. The UE contains AC(s) and the EEC. The EAS(s), the EES and the ECS can interact with the 3GPP Core Network.

*END OF CHANGES*