**3GPP TSG-CT WG3 Meeting #112e *C3-205334***

**E-meeting, 04th – 13th November 2020** (revision of C3-205xxx)

**Source: Samsung**

**Title: New WID on CT aspects for enabling Edge Applications**

**Document for: Approval**

**Agenda Item: 17.1.1**

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 for Enabling Edge Applications

## Acronym: EDGEAPP

## Unique identifier: TBD

Potential target Release: Rel-17.

## 1 Impacts

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

## 2 Classification of the Work Item and linked work items

### 2.1 Primary classification

This work item is a …

|  |  |
| --- | --- |
|  | Feature |
| X | Building Block |
|  | *Work Task* |
|  | Study Item |

### 2.2 Parent Work Item

|  |  |  |  |
| --- | --- | --- | --- |
| Parent Work / Study Items | | | |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| EDGEAPP | SA6 | 860006 | Architecture for enabling Edge Applications |

### 2.3 Other related Work Items and dependencies

|  |  |  |
| --- | --- | --- |
| Other related Work Items (if any) | | |
| Unique ID | Title | Nature of relationship |
| 870029 | Study on enhancements of edge computing management | OAM aspects of Edge Computing (SA5). |
| 880030 | Study on charging aspects of Edge Computing | Charging aspects of Edge Computing (SA5) |
| 880002 | Study on Security Aspects of Enhancement of Support for Edge Computing in 5GC | Security aspects of Edge Computing (SA3) |
| 830032 | Study on enhancement of support for Edge Computing in 5GC | Study on system aspects for Edge Computing in TSG SA2. |

**Dependency on non-3GPP (draft) specification**: None

## 3 Justification

A substantial justification appears in the work item description for the parent feature (EDGEAPP, Unique ID: 860006) and applies to this building block work item description as well.

The EDGEAPP WID in SA6, specifies the application layer architecture, procedures and information flows necessary for enabling deployment of edge applications over 3GPP networks. The EDGEAPP work is captured in release 17 3GPP TS 23.558 and TS 23.222. The normative work specified in 3GPP TS 23.558 has impacts to the stage-3 protocol aspects and related APIs of EDGEAPP need to be specified in CT WGs.

CT WGs need to define protocol aspects of the architecture for enabling edge applications and related APIs based on normative stage 2 specification developed by 3GPP SA6 WG.

CT WGs also need to define protocol aspects of the security solutions related to architecture for enabling edge applications to be developed by 3GPP SA3 WG.

## 4 Objective

To define the protocol aspects and related APIs for enabling edge applications based upon the normative Stage 2 technical specifications developed by SA6, SA5 and SA3 WGs.

For CT1, based on normative stage-2 work developed in 3GPP TS 23.558, the expected work includes:

* Protocols and APIs (with the only identified consumer EEC in the UE) for EDGE-1 and EDGE-4 interfaces;

For CT3, based on normative stage-2 work developed in 3GPP TS 23.558 and TS 23.222, the expected work includes:

- CAPIF enhancement for enabling Edge Application

-.Potential clarification to re-use the 3GPP northbound reference points, which are specified in 3GPP TS 29.522 and 3GPP TS 29.122, for EDGE-2, EDGE-7 and EDGE-8

-To define new APIs (with identified consumer EES/EAS in the EDN) for interactions specified in EDGE-3, EDGE-6, and EDGE-9 interfaces..

NOTE 1: Definition of EDGE-5 interface is out of Rel-17 scope as per 3GPP TS 23.558.

NOTE 2: To ensure consistent and harmonized development of APIs exposed by an Edge Function (e.g. EES) which may be specified across different CT groups and EDGEAPP APIs with identified consumers EEC and EES/EAS, coordination between the groups is necessary.

NOTE 4: Any enhancements to EDGEAPP APIs that are dependent on SA2 outcome, will be progressed once SA2 normative work is available.

## 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 |
| *TS* | *24.abc* | *Enabling Edge Applications; Protocol specification* | TSG CT#92 (June 2021) | TSG CT#93 (September 2021) | WG CT1  Rapporteur:  Sapan Shah (Samsung) sapan.shah@samsung.com |
| *TS* | *29.xyz* | *Enabling Edge Applications; Application Programming Interface (API) specification; Stage 3* | TSG CT#92 (June 2021) | TSG CT#93 (September 2021) | WG CT3  Rapporteur:  Narendranath Durga Tangudu (Samsung) n.tangudu@samsung.com |

|  |  |  |  |
| --- | --- | --- | --- |
| **Impacted existing TS/TR** *{One line per specification. Create/delete lines as needed}* | | | |
| TS/TR No. | Description of change | Target completion plenary# | Remarks |
| 29.222 | Enhancements for enabling Edge Applications. | TSG CT#93 (September 2021) | CT3 |
| 27.007 | Potential enhancements for enabling Edge Applications. | TSG CT#93 (September 2021) | CT1 |
| 24.501 | Potential enhancements for enabling Edge Applications. | TSG CT#93 (September 2021) | CT1 |

## 6 Work item Rapporteur(s)

Narendranath Durga Tangudu (n.tangudu@samsung.com)

## 7 Work item leadership

CT3

## 8 Aspects that involve other WGs

The parent feature has linkage to ongoing studies in SA3 and SA5. When normative work progress for these studies, this WID must be evaluated for possible aspects.

## 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| Samsung |
| AT&T |
| Airbus |
| Alibaba |
| Convida Wireless |
| Intel |
| InterDigital |
| KDDI |
| Lenovo |
| Matrixx |
| Motorola Mobility |
| Qualcomm Incorporated |
| Softil |
| Vodafone |
| ZTE |
| Kontron Transportation France |
| ASUSTek |
| China Telecom |
| SK Telecom |
| LG Electronics |
| MediaTek Inc. |
| CATT |
| Apple |
| China Mobile |
| ENENSYS |
| Deutsche Telekom |
| Charter Communications |