**3GPP TSG-CT WG1 Meeting #127bis-eC1-21xxxx**

**E-meeting, 25-29 January 2021**

**Source: ZTE, China Telecom**

**Title: New WID on CT aspects of Access Traffic Steering, Switch and Splitting support in the 5G system architecture; Phase 2**

**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 of Access Traffic Steering, Switch and Splitting support in the 5G system architecture; Phase 2

## Acronym: ATSSS\_Ph2-CT

## Unique identifier: TBD

Potential target Release: Rel-17

Note that this field above indicates the proposed Release at the time of submission of the WID to TSG approval. It can later be changed without a need to revise the WID. The updated target Release is indicated in the Work Plan.

## 1 Impacts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Affects:** | UICC apps | ME | AN | CN | Others (specify) |
| **Yes** |  | X |  | 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 …

|  |  |
| --- | --- |
|  | 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) |
| ATSSS\_Ph2 | SA2 | 900012 | Access Traffic Steering, Switch and Splitting support in the 5G system architecture; Phase 2 |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| **Other related Work Items (if any)** |
| **Unique ID** | **Title** | **Nature of relationship** |
|  |  |  |

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

## 3 Justification

The Rel-17 normative work on Access Traffic Steering, Switching and Splitting (ATSSS) Phase 2 is being progressed in SA2. This new work item aims to support ATSSS\_Ph2 from CT aspects.

## 4 Objective

The objective of this work item is to provide the stage 3 solutions for the functionalities defined in stage 2 requirements under the ATSSS\_Ph2 WID in the TSG SAs working groups.

Stage 3 work shall be started only after the applicable normative stage 2 work is available.

The following areas of work are expected to be covered but will be adjusted or detailed based on the final conclusions of the SA2 normative requirements, if required.

CT1:

**-** Enhancements to the steering modes generally following updates to:

a) allow the UE and the UPF decide how to split the traffic across the 3GPP access and non-3GPP access for load balancing steering mode;

b) introduce a threshold condition to indicate how the split of traffic should be applied for load balancing steering mode; and

c) introduce a UE-assistance indication provisioned by the network for all potential steering modes.

**-** PMF protocol extensions to support RTT and Packet Loss Rate measurements per QoS flow

**-** Support for UEs to establish an MA PDU session with a 3GPP access leg over EPC and a non-3GPP access leg over 5GC

CT3:

**-** Update of PCC rules for enhancements to the steering modes

**-** Impacts to Npcf\_SMPolicyControl service operation for UE supporting MA PDU with a 3GPP access leg over EPC and a non-3GPP access leg over 5GC

CT4:

**-** Impacts to N4 reference point for enhancements to the steering modes

**-** Potential impacts to N4 reference point and SMF/UPF behaviour for supporting enhanced PMFP

**-** Possible impacts to selection of SMF/UPF for the enhancements to the steering mode

**-** Possible impacts to handover procedure when UE supporting MA PDU session with a 3GPP access leg over EPC and a non-3GPP access leg over 5GC

## 5 Expected Output and Time scale

|  |
| --- |
| **Impacted existing TS/TR** *{One line per specification. Create/delete lines as needed}* |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| 24.193 | Enhancements to steering modes and PMFP | TSG CT#95 (March 2022) | CT1 responsibility |
| 24.301 | UE supporting MA PDU with a 3GPP access leg over EPC and a non-3GPP access leg over 5GC | TSG CT#95 (March 2022) | CT1 responsibility |
| 24.501 | Potential update of NAS signalling for the enhanced ATSSS | TSG CT#95 (March 2022) | CT1 responsibility |
| 29.512 | Update of the PCC rules for steering mode enhancementsExtension to hybrid access support | TSG CT#95 (March 2022) | CT3 responsibility |
| 29.244 | N4 extensions to support the enhanced ATSSS | TSG CT#95 (March 2022) | CT4 responsibility |
|  |  |  |  |
| 29.502 | Possible impacts on handover procedure when UE supporting MA PDU session with a 3GPP access leg over EPC and a non-3GPP access leg over 5GC | TSG CT#95 (March 2022) | CT4 responsibility |
| 29.518 | Possible impacts on handover procedure when UE supporting MA PDU session with a 3GPP access leg over EPC and a non-3GPP access leg over 5GC | TSG CT#95 (March 2022) | CT4 responsibility |

## 6 Work item Rapporteur(s)

ZHOU Xingyue (Joy), ZTE, zhou.xingyue@zte.com.cn

## 7 Work item leadership

CT1

## 8 Aspects that involve other WGs

Possible security aspects will be covered by SA3.

Possible charging aspects will be covered by SA5.

## 9 Supporting Individual Members

|  |
| --- |
| Supporting IM name |
| ZTE |
| China Telecom |
| China Mobile |
| Lenovo |
| Motorola Mobility |
| Qualcomm Incorporated |
| Google |
| Convida Wireless |
| LG Electronics |
| Deutsche Telekom |
| Vodafone |
| Ericsson |
| Orange |
| Charter Communications |
| Huawei? |
| HiSilicon? |
| Nokia |
| Nokia Shanghai Bell |