**SA WG2 Meeting #143E S2-200xxxx**

**Feb 24 – Mar 9, 2021, Electronic**

**Source: vivo, Nokia?, Huawei?, Xiaomi?, Samsung?**

**Title: Introducing UE behaviour support for Edge Computing in SSC mode 2 and SSC mode 3**

**Document for: Agreement**

**Agenda Item: 8.3**

**Work Item / Release: eEdge\_5GC /Rel-17**

***Abstract of the contribution:****This contribution introduces a new UE behaviour support for Edge Computing in SSC mode 2 and SSC mode 3*

# 1 Introduction

As per TR 23.748 clause 9.2.2 " Conclusions for Key Issue #2: UE based EAS rediscovery ", it introduces new UE behaviour to support edge computing characteristic. The UE can remove the old EAS information associated with the released PDU Session and can reselect a new EAS after the UE receives a new IP address for SSC mode 2 and SSC mode 3.

This new UE behaviour in edge relocation should be reflected according to the summarised conclusions in TR 23.748 clause 9.2.2.

# 2 Proposal

It is proposed to adopt the following changes into TS23.548.

\*\*\*\*\*\*\*\*\*\*\*\*\* Start Changes \*\*\*\*\*\*\*\*\*\*\*\*\*

# 6.2.2.3 UE based EAS rediscovery for SSC mode 2/3

##### 6.2.2.3.1 UE behaviour in changing of SSC mode 2 PDU Session Anchor with different PDU Sessions

The following procedure is triggered by SMF in order to change the PDU Session Anchor serving a PDU Session of SSC mode 2 for a UE when neither multi-homing nor UL CL applies to the PDU Session, as described in clause 4.3.5.1 in TS 23.502 [3]]. During this procedure, the UE should remove the old Edge Application Server address information in the DNS cache and triggers Edge Application Server re-discovery.



Figure 6.2.2.3.1-1: UE Behaviour in Procedure of Changing of SSC mode 2 PSA for a PDU Session

1. The same procedure as the step 1-2 defined in clause 4.3.5.1 of TS 23.502 [3].

2. When the UE detects the IP address changes, the UE should remove the old Edge Application Server address information in the DNS cache and triggers Edge Application Server re-discovery.

3. The same procedure as the step 3 defined in clause 4.3.5.1 of TS 23.502 [3].

##### 6.2.2.3.2 UE behaviour in changing of SSC mode 3 PDU Session Anchor with multiple PDU Sessions

The following procedure is triggered by SMF in order to change the PDU Session Anchor serving a PDU Session of SSC mode 3 for a UE as described in clause 4.3.5.2 in TS 23.502 [3]. During this procedure, the UE should remove the old Edge Application Server address information in the DNS cache and triggers Edge Application Server re-discovery.



Figure 6.2.2.3.2-1: UE Behaviour in Procedure of Changing of SSC mode 3 PSA for a PDU Session

1. The same procedure as the step 1-4 defined in clause 4.3.5.2 of TS 23.502 [3].

2. When the UE detects the IP address changes, the UE should remove the old Edge Application Server address information in the DNS cache and triggers Edge Application Server re-discovery.

3. The same procedure as the step 5-6 defined in clause 4.3.5.2 of TS 23.502 [3].

##### 6.2.2.3.3 UE behaviour in changing of SSC mode 3 PDU Session Anchor with IPv6 Multi-homed PDU Session

Clause 6.2.2.3.3 describes a procedure for service continuity with SSC mode 3 that uses the multi-homed PDU Session described in TS 23.501 [2] clause 5.6.4.3. In this case the SMF prepares a new PDU Session Anchor first and then notifies the UE of the existence of a new IP prefix, as depicted in figure 4.3.5.3-1 of TS 23.502 [3]. During this procedure, the UE should remove the old Edge Application Server address information in the DNS cache and triggers Edge Application Server re-discovery.



Figure 6.2.2.3.3-1: UE Behaviour in Procedure of Changing of SSC mode 3 PDU Session Anchor with IPv6 Multi-homed PDU Session

1. The same procedure as the step 1-13 defined in clause 4.3.5.3 of TS 23.502 [3].

2. When the UE detects the IPv6 prefix changes, the UE should remove the old Edge Application Server address information in the DNS cache and triggers Edge Application Server re-discovery.

3. The same procedure as the step 14-18 defined in clause 4.3.5.3 of TS 23.502 [3].

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