**3GPP TSG-WG SA2 Meeting #153E e-meeting *S2-2208646r03draft***

**Elbonia, Oct 10th – 17th, 2022 (revision of S2-220xxxx)**

**Source: Samsung (Rapp), Huawei (Rapp)**

**Title: Merged Conclusion for FS\_GMEC KI#4**

**Document for: Approval**

**Agenda Item: 9.2**

**Work Item / Release: FS\_GMEC / Rel-18**

*Abstract: Providing Conclusion for KI#4.*

# 1. Introduction/Discussion

Based on the discussion during CC for SA2#153E preparation, it is proposed to update the conclusion for KI#4 merging PCRs from volunteers.

1. Support of SMF redundancy for reliability of the 5G VN group communication
2. Architectural enhancements

a)         How to manage session management when multiple SMFs are involved to serve a 5G VN group

b)         How to manage communication among the UE group members when they are served by different UPFs and different SMFs including the case of UE(s) mobility

1. Rel-16 compatibility issue

# 2. Text Proposal

It is proposed to capture the following changes to TR 23.700-74.

\* \* \* \* First change \* \* \* \*

## 8.4 Key Issue #4: Multiple SMFs for VN group communication

The following are way forward principles.

- The multiple SMFs serving a same 5G VN group can belong to a single SMF Set or different SMF Sets, this is to support SMF redundancy for reliability of the 5G VN group communication

- The associations between one or more SMF Sets and the DNN, S-NSSAI of the associated 5G VN group is registered and discovered in NRF per existing mechanisms (SMF registering the DNN+S-NSSAI it supports).

- .

- For UPFs served by a single SMF Set, N19-based forwarding, N6-based forwarding and local switch as per Rel-17 can be used with the following clarifications:

- .

- The SMF set or SMF instances in SMF set need to support functionality for 5G VN group communications across SMFs. As an example - No standard impacts are expected for this purpose except a NOTE such as:

NOTE: Implementation dependent mechanism can be used between SMF(s) that are part of a SMF set e.g. based on an implementation choice SMF(s) within the set can select one SMF to control the N19 configuration.

- For UPFs controlled by different SMF Sets,

- static connectivity (configured via OA&M) between PSA UPFs controlled by different SMF sets can be GTP-U tunnel or based on IETF protocols, the type of tunnel to implement the 5G VN connectivity between these UPFs is up to network implementation and deployment. In this case, No specification work beyond potential limited N4 impacts will be done to specify how an SMF set and its UPF are configured with the static tunnels to use to reach an UPF controlled by another SMF set

Editor's note: In case of UPFs controlled by different SMF Sets, It is FFS whether and how to use GSMF-based solution to support dynamic control of the N19-based forwarding or use new "PAS UPF" event to support dynamic control of the N6-based forwarding.

Editor's note: It is FFS whether and how to address Rel-16 compatibility issue.

\* \* \* \* End of changes \* \* \* \*