**3GPP TSG-SA WG6 Meeting #45-bis S6-212280**

**e-meeting, 11th – 19th October 2021 (revision of S6-21xxxx)**

**Title: LS on Concerns of scalability issues when serving mission critical users over multicast MBS sessions**

**Release: Rel-17**

**Source:** 3GPP TSG SA WG6

**To: 3GPP TSG SA WG2, 3GPP TSG RAN WG3**

**Cc:**

**Contact person: Joakim Åkesson**

 **Joakim.akesson@ericsson.com**

**Send any reply LS to: 3GPP Liaisons Coordinator,** **mailto:3GPPLiaison@etsi.org**

**Attachments:** S6-211237 [UK Home Office Discussion document from SA6#43-e]

# 1 Overall description

Mission Critical (MC) services rely on a proper and successful establishment of broadcast and multicast sessions with the required service requirements to serve public safety users over commercial public networks. The main motivation behind MBS sessions is to serve a large number of public safety users in one cell.

This issue is already brought up in 3GPP RAN#93-e and discussed in RP-212093 (no consensus, discussion paper Noted), which clearly indicates that 5MBS multicast may suffer from both capacity and performance limitations and may not meet the capacity (2000 MCPTT users in a cell) and performance (MCPTT key performance indicators) as defined in SA1, i.e., in 3GPP TS 22.179. Analogous capacity and performance related issue is embedded in (LTE) unicast bearers for group communication with large concentration of users in the same area. Attached as well is UK Home Office Discussion from SA6#43 on this topic. Therefore, there are concerns of similar scalability issues and behavior within multicast MBS sessions, which will not meet public safety requirements.

SA6 is dependent on the SA2 and RAN specifications for MBS services when specifying MC services over 5GS in 3GPP TS 23.289, compliant to above mentioned SA1 requirements.

# 2 Actions

**To SA2**

**ACTION 1:** SA6 kindly asks SA2, with the help of RAN3, to investigate whether the current concerns in the5G architecture meets public safety requirements as clearly defined in 3GPP TS 22.261 and TS 22.179, and to take the previously raised concerns in RP-212093 related to public safety requirements into account.

**ACTION 2:** SA6 kindly requests SA2 to examine how to secure that the Rel-17 multicast solution, if some aspects are not solved already in this release, can be enhanced in a coming release to meet the 3GPP TS 22.179 capacity and performance requirements, without Rel-17 compatibility issues**.**

**To RAN3:**

 SA6 kindly asks RAN3 to take the above into account during the ongoing discussion of Rel-17 MBS.

# 3 Dates of next TSG SA WG 6 meetings

SA6#45-bis-e 11th Oct – 19th Oct 2021 e-meeting

SA6#46-e 15th Nov – 23rd Nov 2021 e-meeting