**3GPP TSG-CT WG1 Meeting #131-eC1-214285**

**E-meeting, 19-27 August 2021 Revision of C1-213967**

**Source: China Mobile, Nokia, Nokia Shanghai Bell**

**Title: Conclusion for KI#7**

**Spec: 3GPP TR 24.821 v1.2.0**

**Agenda item: 17.2.4**

**Document for: Agreement**

**1. Introduction**

In TR 24.821, Key issue #7 focuses on PLMN selection for emergency call.

This pCR proposes a conclusion for this key issue.

**2. Reason for Change**

For KI#7, solution#16 and #18 provided in the TR 24.821, and in CT1#129e C1-212553 provided the evalutions of these two solutions.

Furthermore, for this Key issue, SA1 provides a guidance by SA1 LS reply (S1-211319): “The UE should first determine a most suitable PLMN based on its own physical location determination.As there may be border cases where the UE cannot determine sufficiently accurate or sufficiently precise in which country it is, the UE may also still attempt to obtain (emergency) services from a PLMN that according to the UE is not allowed to operate in the country of the UE’s location. If the PLMN indicates it is not allowed to operate in the country of the UE’s location, the UE should not (re)-attempt emergency calls.”

This pCR provides a conclusion to KI#7 based on the evalutions agreed at CT1#129e and SA1 LS reply (S1-211319).

**3. Proposal**

It is proposed to agree the following changes to 3GPP TR 24.821 v1.2.0.

\* \* \* First Change \* \* \* \*

# 8 Conclusion

## 8.x Conclusion for Key Issue #7

Key issue #7 " Emergency calls " identifies the following issue in subclause 5.7:

- What modifications in automatic PLMN selection mode are necessary for a UE using satellite access unable to obtain normal service from a PLMN?

For this Key issue, SA1 provided a guidance by SA1 LS reply (S1-211319) as follows:

The UE should first determine a most suitable PLMN based on its own physical location determination. As there may be border cases where the UE cannot determine sufficiently accurate or sufficiently precise in which country it is, the UE may also still attempt to obtain (emergency) services from a PLMN that according to the UE is not allowed to operate in the country of the UE's location. If the PLMN indicates it is not allowed to operate in the country of the UE’s location, the UE should not (re)-attempt emergency calls.

In normative phase, the above requirements should be considered in 3GPP TS 23.122 [3].

There are four cases in which the UE using satellite NG-RAN is unable to obtain normal service from a PLMN mentioned in the evaluations of the solution to KI#7:

a) the UE is unable to find a suitable cell to camp on;

b) the USIM is not inserted;

c) the UE receives a REGISTRATION REJECT message with the cause "PLMN not allowed to operate at the present UE location"; and

d) the UE receives a REGISTRATION REJECT message with a cause other than "PLMN not allowed to operate at the present UE location".

Based on SA1 requirement:

- for c), the UE shall not (re-)attempt emergency calls in the PLMN which indicates it is not allowed to operate in the country of the UE’s location; and

- for a), b) and d):

1) if the UE can determine neither the country of the UE's location nor whether a PLMN is allowed to operate in the country, the UE may (re-)attempt emergency calls in any available PLMN; or

2) if the UE can determine the country of the UE's location and whether a PLMN is allowed to operate in the country, the UE may (re-)attempt emergency calls in PLMNs which are not allowed to operate in the country but piroritizes PLMNs which are allowed to operate in the country over PLMNs which are not allowed to operate in the country.