**3GPP TSG-CT WG1 Meeting #129-eC1-21xxxx**

**Electronic meeting; 19–23 April 2021 Revision of C1-212059**

**Source: China Mobile**

**Title: Evaluation of Solutions for KI#7**

**Spec: 3GPP TR 24.821 v1.0.0**

**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 provides an evaluation of the above solutions for this key issue.

**2. Reason for Change**

An evaluation of solutions for KI#7 is provided.

**3. Proposal**

It is proposed to agree the following changes to 3GPP TR 24.821 v1.0.0.

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

## 7.7 Evaluation of Solutions 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?

There are two candidate solutions for this key issue. The evalution of these solutions is as follows.

Table 7.7-1  Evaluation of the solutions to KI#7

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|  | Solution Summary | Evaluation |
| Solution  16 | When a UE needs to camp on an acceptable cell with "satellite NG-RAN" access technology, it checks whether a candidate cell belongs to a PLMN allowed in the country where the UE is physically located, according to the solution to Key Issues #1 and #2. | Both solutions cover the UE behavior of camping on an acceptable cell with the consideration of the PLMN ID, according to the solution to KI#1 and KI#2. They are compatible in the situations the UE is unable to find a suitable cell to camp on or receiving a REGISTRATION REJECT with the cause "PLMN not allowed to operate at the present UE location".  The two solutions are not compatible in the following situations:  - USIM not inserted;  - Receiving a REGISTRATION REJECT with a cause other than "PLMN not allowed to operate at the present UE location". |
| Solution  18 | When a UE needs to camp on an acceptable cell with "satellite NG-RAN" access technology, it distinguishes the situations:  - When unable to find a suitable cell to camp on or receiving a REGISTRATION REJECT with the cause "PLMN not allowed to operate at the present UE location", it may camp on an acceptable cell according to the solution to Key Issues #1 and #2;  - When receiving a REGISTRATION REJECT with a cause other than "PLMN not allowed to operate at the present UE location", it may camp on an acceptable cell of the selected PLMN;  - When the USIM is not inserted, it may camp on an acceptable cell irrespective of the PLMN identity, without modifying the behaviour. |

Questions for discussion:

1. Should the UE with USIM not inserted behave the same as the UE with USIM inserted when camping on an acceptable cell with "satellite NG-RAN" access technology?
2. Should the reject causes other than "PLMN not allowed to operate at the present UE location" be considered to help the UE to camp on an acceptable cell of a PLMN allowed to operate in the UE location?
3. Could it happen that a PLMN sends a reject message with a cause value other than "PLMN not allowed to operate at the present UE location" before it can verify the UE location?

\* \* \* Next Change \* \* \* \*