**3GPP TSG RAN WG2#118-e R2-22XXXXX**

**e-Meeting, 9th - 20th May, 2022**

Title: Reply LS on system information extensions for minimization of service interruption (MINT)

Response to: LS on system information extensions for minimization of service interruption (MINT) (R2-2204510/C1-223219)

Release: Rel-17

Work Item: MINT, TEI17

Source: RAN2

To: CT1

Cc: SA2

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**1. Overall Description:**

RAN2 thanks CT1 for the LS in R2-2204510/C1-223219.

RAN2 discussed the following definition of the single bit approach described in the attached CR in C1-223001:

|  |
| --- |
| The disaster related indication indicates that the available PLMN broadcasting this indication is the only PLMN accessible for disaster inbound roamers, that this PLMN accepts disaster inbound roamers from any other PLMN, that a disaster condition applies to all other PLMNs in the location of the broadcast, and that the disaster inbound roamers attempt to determine the MS determined PLMN with disaster condition as per bullet q2) |

RAN2 identified some issues with this definition for RAN sharing. For example, if a PLMN A and PLMN B share a cell and are both unaffected by a disaster condition while there are other PLMNs in the area which are affected by a disaster condition, it would not be possible for these two PLMNs to **both** use the single bit approach if defined as above. This because if indeed the single bit "*indicates that the available PLMN broadcasting this indication is the only PLMN accessible for disaster inbound roamers*" if PLMN A indicates the single bit, it would imply that disaster conditions apply for PLMN B, and vice versa.

RAN2 understands the single bit should be interpreted as disaster conditions apply to all PLMNs in the location of the broadcast, except those sharing the cell in case of RAN sharing (i.e. PLMN B is unaffected when PLMN A broadcasts the bit, and vice versa).

RAN2 therefore designed the ASN.1 allowing all PLMNs sharing a cell to set the single bit. RAN2 even designed the signalling to allow that PLMN A and PLMN B could have **different** policies with regards to disaster roaming. For example, RAN2 signalling allows PLMN A to indicate the single bit approach (and hence to indicate acceptance of disaster inbound roamers from "any other PLMN" and that a disaster condition applies to all PLMNs in the location of the broadcast except those sharing the cell) while PLMN B accepts disaster inbound roamers from a particular set of PLMNs which have disaster conditions (by using the approach with signaling an explicit list of PLMNs experiencing disaster condition), or even that PLMN B does not support disaster roaming whatsoever.

The above means that RAN2's signalling does not capture all restrictions in CT1's definition above. Specifically, RAN2's signalling and description of the single bit does not mention that the bit "*indicates that the available PLMN broadcasting this indication is the* ***only*** *PLMN accessible for disaster inbound roamers*".

RAN2 definition says that if this bit is indicated for a network "*disaster conditions apply to all other PLMNs in the location of the broadcast (except those indicated in SIB1) and this network(s) accepts disaster inbound roamers from any other PLMN (except those indicated in SIB1)*".

RAN2 asks CT1 to indicate if CT1 sees any problems with the above.

**2. Actions:**

**To CT1**

**ACTION:** RAN2 asks CT1 to take the information above into consideration and indicate if CT1 sees any problems with the above.

**3. Date of Next RAN2 Meetings:**

RAN2#119-e 2022-08-15 - 2022-08-26 electronic meeting

RAN2#119-bis-e 2022-10-10 - 2022-10-19 electronic meeting