**Comment collection for:**

[AT127][012][Emergency calls] Acceptable cells (ZTE)

Intended outcome: Review CR for acceptable cells behaviour

Deadline: Company comments by Thursday 22/08/2024 16:30 CEST please

**Issue about “generic wording”:**

Currently the description for each case for the barring exception lists various conditions as shown below (taking the redcap case as an example)

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| When *cellBarredRedCap1Rx* is set to "barred" in SIB1, if cell selection criteria are fulfilled as defined in clause 5.2.3, *cellBarred* in MIB is not set to "barred" and in SIB1, *barringExemptEmergencyCall* is present and, if the RedCap UE supports only half duplex FDD operation, *halfDuplexRedCapAllowed* is set to "true",   * The RedCap UE that supports only 1Rx branch shall treat this cell as acceptable cell and not treat the cell as a barred cell. |

All the green highlighted parts of the text are essentially checking that the UE is not barred and can access the cell normally based on other conditions which are generally captured in RRC. In R2-2406441 it is pointed out that in addition to those conditions in green above, we may have to check also the TAC related condition (“and, *trackingAreaCode* is provided for the selected PLMN or the registered PLMN or PLMN of the equivalent PLMN list in SIB1”). Whilst this is the general understanding, it seems companies feel that this is not the only additional condition that may be missing but may be there are others. So, instead of proliferating these general conditions that the UE has to satisfy (as already captured in 38.331), it was commented that we should rather try to find a generic wording for this. So, companies are encouraged to suggest any generic wording for this and we can see if we can achieve consensus on some wording. Please use the RedCap case as the example for your generic wording suggestion.

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| Company | Generic wording suggestion | Comments |
| ZTE (rapp) | If *cellBarredRedCap1Rx* is set to "barred" in SIB1 and if cell selection criteria are fulfilled as defined in clause 5.2.3 and if the cell would not be treated as barred by the UE for any other reason other than the *cellBarredRedCap1Rx* being set to "barred" (see 38.331) and in SIB1, *barringExemptEmergencyCall* is present,   * The RedCap UE that supports only 1Rx branch shall treat this cell as acceptable cell. | The barring exception specifically nullifies the barring due to the *cellBarredRedCap1Rx*. So, it does not nullify barring or access control due to anything else. So, may be the generic sentence can pin point that the barring exemption specifically nullifies this specific bit and nothing else?? |
| Samsung | There are “other barring conditions” for which UE considers the cell as barred.   * Condition 1 (i.e., Vivo’s condition, See highlighted text below) * Condition 2. (See highlighted text below)  |  | | --- | | 1> if the UE is a RedCap UE and it is in RRC\_IDLE or in RRC\_INACTIVE, or if the RedCap UE is in RRC\_CONNECTED while *T311* is running:  2> if *intraFreqReselectionRedCap* is not present in *SIB1*:  3> consider the cell as barred in accordance with TS 38.304 [20];  3> perform barring as if *intraFreqReselectionRedCap* is set to allowed, upon which the procedure ends;  2> else:  3> if the *cellBarredRedCap1Rx* is present in the acquired *SIB1* and is set to *barred* and the UE supports 1 Rx branch; or  3> if the *cellBarredRedCap2Rx* is present in the acquired *SIB1* and is set to *barred* and the UE supports 2 Rx branches; or  3> if the *halfDuplexRedCapAllowed* is not present in the acquired *SIB1* and the UE supports only half-duplex FDD operation:  4> consider the cell as barred in accordance with TS 38.304 [20];  4> perform barring based on *intraFreqReselectionRedCap* as specified in TS 38.304 [20], upon which the procedure ends;  (…)  1> if in RRC\_CONNECTED while T311 is not running:  (…)  1> else:  2> if the UE supports one or more of the frequency bands indicated in the *frequencyBandList or frequencyBandListAerial* for downlink for TDD, or one or more of the frequency bands indicated in the *frequencyBandList* or *frequencyBandListAerial* for uplink for FDD, and they are not downlink only bands, and  2> if the UE is IAB-MT or wide area NCR-MT (see TS 38.106 [79]) or supports at least one *additionalSpectrumEmission* in the *nr-NS-PmaxList* or *nr-NS-PmaxListAerial* for a supported band in the downlink for TDD, or a supported band in uplink for FDD, and  2> if the UE supports an uplink channel bandwidth with a maximum transmission bandwidth configuration (see TS 38.101-1 [15], TS 38.101-2 [39], and TS 38.101-5 [75]) which  - is smaller than or equal to the *carrierBandwidth* (indicated in *uplinkConfigCommon* for the SCS of the initial uplink BWP or, for (e)RedCap UE, of the RedCap-specific initial uplink BWP if configured), and which  - is wider than or equal to the bandwidth of the initial uplink BWP or, for (e)RedCap UE, of the RedCap-specific initial uplink BWP if configured, and  2> if the UE supports a downlink channel bandwidth with a maximum transmission bandwidth configuration (see TS 38.101-1 [15], TS 38.101-2 [39], and TS 38.101-5 [75]) which  - is smaller than or equal to the *carrierBandwidth* (indicated in *downlinkConfigCommon* for the SCS of the initial downlink BWP or, for (e)RedCap UE, of the RedCap-specific initial downlink BWP if configured), and which  - is wider than or equal to the bandwidth of the initial downlink BWP or, for (e)RedCap UE, of the RedCap-specific initial downlink BWP if configured, and  2> if *frequencyShift7p5khz* is present and the UE supports corresponding 7.5kHz frequency shift on this band; or *frequencyShift7p5khz* is not present, and  2> if the UE is neither a RedCap nor an eRedCap UE, or for TDD if the UE is an (e)RedCap UE, or for FDD if the UE is an (e)RedCap UE and *halfDuplexRedCapAllowed* is present, or if the UE is an (e)RedCap UE and the (e)RedCap UE supports full-duplex FDD operation on this band:  3> if neither *trackingAreaCode* nor *trackingAreaList* is provided for the selected PLMN nor the registered PLMN nor PLMN of the equivalent PLMN list:  4> consider the cell as barred in accordance with TS 38.304 [20];  4> perform cell re-selection to other cells on the same frequency as the barred cell as specified in TS 38.304 [20];  (…)  2> else:  3> consider the cell as barred in accordance with TS 38.304 [20]; and  3> perform barring as if *intraFreqReselection*, or *intraFreqReselectionRedCap* for RedCap UEs, or *intraFreqReselection-eRedCap* for eRedCap UEs, or *intraFreqReselection2RxXR* for 2Rx XR UEs is set to *notAllowed*; |   The RedCap UE needs to check “other barring conditions” (i.e., both condition 1 and 2) to consider the cell as acceptable cell.  But the problem is, if RedCap UE bars the cell due to cellBarredRedCap1Rx or cellBarredRedCap2Rx, the UE does not check the “other barring conditions”, due to highlighted text.  Thus, it should be clarified the RedCap UE should check the “other barring conditions”. We think this can be achieved temporarily assuming the otherwise case of the case “when cellBarredRedCap1Rx is set to "barred" in SIB1”.  So, our proposal is:   |  | | --- | | ~~When~~**If** *cellBarredRedCap1Rx* is set to "barred" in SIB1 **and otherwise the UE would not consider the cell as barred**~~, if~~ **and** cell selection criteria are fulfilled as defined in clause 5.2.3, *~~cellBarred~~* ~~in MIB is not set to "barred" and in SIB1~~, *barringExemptEmergencyCall* is present ~~and, if the RedCap UE supports only half duplex FDD operation,~~ *~~halfDuplexRedCapAllowed~~* ~~is set to "true"~~,   * The RedCap UE that supports only 1Rx branch may treat this cell as an acceptable cell and not treat this cell as if the cell status is “barred”. |   Note that the text is simplified by removing two conditions (i.e., one for cellBarred in MIB, one for halfDuplexRedCapAllowed) as the two conditions are not needed any more (i.e., they are included in the new condition). | **Rapporteur Comment:** Thanks and this seems to go in similar direction as above. I used something like this in the v09 draft CR version. Please check that. |
| Vodafone | I think Samsung and ZTE proposals try to say the same and to me the wording could be a bit improved  If cellBarredRedCap1Rx is set to "barred" in SIB1and there are no other reasons the RedCap1Rx UE would not consider the cell as barred and cell selection criteria are fulfilled as defined in clause 5.2.3, barringExemptEmergencyCall is present  If the intention is to copy paste this text to other “redcap”fields, like below, then I think it should work   * cellBarredRedCap2Rx * cellBarred-eRedCap1Rx * cellBarred-eRedCap2Rx | **Rapporteur Comment:** Agree, the intention is to copy paste it for all scenarios. Happy to massage the final text to make it more accurate/beautiful, please check the new draft CR (v09) |
| Qualcomm Incorporated |  | Rapporteur’s text looks fine to us.  We also had come to think about Samsung’s concern on “upon which the procedure ends”. We believe it can be left to UE implementation to check other barring conditions according to the text in 38.304. In that sense, it is essential to have “see 38.331” or “according to 38.331” in the 38.304 text (as already proposed by the rapporteur).  It should also be noted that the UE anyway need to perform other actions in 38.331 related to acceptable cell after the barring exemption. There, the UE needs to undo the “upon which the procedure ends” as well.  **Rapporteur comment:** Agree with above! Thanks! |
| Rapporteur |  | Seems the comments received so far go in the same direction as far as generic wording is concerned. We can massage the wording a bit, but the general principle seems to be acceptable that we remove the extra conditions (such as halfDuplexRedCapAllowed, etc) and just reference 38.331.  I have now directly implemented it in the draft CR. You can now review the CR directly and stop updating this file 😊! Thanks! |
| Ericsson | If *cellBarredRedCap1Rx* is set to "barred" in SIB1 and if cell selection criteria are fulfilled as defined in clause 5.2.3 and if the cell would not be treated as barred by the UE for any ~~other~~ reason other than the *cellBarredRedCap1Rx* being set to "barred" (see 38.331) and in SIB1, *barringExemptEmergencyCall* is present,   * The RedCap UE that supports only 1Rx branch shall treat this cell as acceptable cell. | Agree with ZTE and QC in principle. Rapporteur’s suggestion looks fine to us with a minor (editorial update): See the column on the left. |
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