**3GPP TSG-RAN2 Meeting #119 Electronic *R2-2209143***

**Online, 17 - 29 Aug 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **38.306** | **CR** | **1859** | **rev** | **-** | **Current version:** | **17.1.0** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network | **x** | Core Network |  |

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| ***Title:***  | Ensuring consistent support of capability bits and associated NS-values in n77 in USA and Canada |
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| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | TEI17 |  | ***Date:*** | 2022-08-22 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-17 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | The intention of extendedBand-n77 (and extendedBand-n77-2) and NS\_55 (and NS\_57) is that either the UE supports both, or it supports neither. It is clear that a UE which supports extendedBand-n77 (or extendedBand-n77-2) shall also support NS\_55 (or NS\_57), however the opposite is not clear from the spec. If a UE do not support the capabilities while supporting the NS values it would cause errors because the UE would connect to the network but the network could not serve the UE since the UE is not indicating the the capability bits. It should therefore be clear from the specification to avoid issues in the field. |
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| ***Summary of change:*** | The field description of extendedBand-n77 (and extendedBand-n77-2) is updated to address the issue above.**Impact analysis**Impacted functionality: Extended band n77 capability signalling.Inter-operability: 1. If the network is implemented according to the CR and the UE is not, the UE may support NS value 55 (or 57) without supporting the extendedBand-n77 (or extendedBand-n77-2) capability bit meaning that the UE may connect to the cell without indicating the capability bit would cause errors in the network since the network could not (based on reported UE capabilities) serve this UE.
2. If the UE is implemented according to the CR and the network is not, there is no interoperability issues.
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| ***Consequences if not approved:*** | The relation between the capability bits extendedBand-n77/extendedBand-n77-2 and NS value 55/57 is unclear which may cause a UE to access a cell broadcasting NS 55 (NS 57) without indicating support for the extendedBand-n77 (extendedBand-n77-2) capability. |
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| ***Clauses affected:*** | 4.3.34.24, 4.3.34.29 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ... |
| ***affected:*** |  | **x** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **x** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

*First Modified Subclause*

#### 4.3.34.24 *extendedBand-n77-r16*

This field is only applicable for UEs that indicate support for band n77. If present, the UE supports the restriction to 3450 - 3550 MHz and 3700 - 3980 MHz ranges of band n77 in the USA as specified in Note 12 of Table 5.2-1 in TS 38.101-1 [33]. If absent, the UE supports only restriction to the 3700 - 3980 MHz range of band n77 in the USA. A UE that indicates this field shall also support NS value 55 as specified in TS 38.101-1 [33]. A UE supporting NS value 55 shall indicate this field.

*Next Modified Subclause*

#### 4.3.34.29 *extendedBand-n77-2-r17*

This field is only applicable for UEs that indicate support for band n77. If present, the UE supports the restriction to 3450 - 3650 MHz and 3650 - 3980 ranges of band n77 in Canada as specified in Note 12 of Table 5.2-1 in TS 38.101-1 [33]. If absent, the UE supports only restriction to the 3450 - 3650 MHz range of band n77 in Canada. A UE that indicates this field shall also support NS value 57 as specified in TS 38.101-1 [33]. A UE supporting NS value 57 shall indicate this field.

*End of changes*