**3GPP TSG-RAN WG Meeting #90 Electronic DRAFT RP-202866**

**Online, 07 – 11 December 2020**

**Title: [DRAFT]** LS on BCS reporting and support for intra-band EN-DC band combinations

**Response to:** -

**Release:** Release 15

**Work Item:** NR\_NewRAT-Core

**Source:** Nokia [TSG RAN]

**To:** TSG RAN WG2, TSG RAN WG4

**Cc:**

**Contact Person:**

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**Attachments:** -

**1. Overall Description:**

RAN has discussed the topic of BCS reporting of intra-band part of inter-band EN-DC as per the document [RP-202805](https://www.3gpp.org/ftp/TSG_RAN/TSG_RAN/TSGR_90e/Docs/RP-202805.zip), with the resulting discussion being documented in [RP-202865](https://www.3gpp.org/ftp/TSG_RAN/TSG_RAN/TSGR_90e/Docs/RP-202865.zip).

As results, RAN has recognized that both RAN2 and RAN4 require some actions to clarify the BCS reporting for band combinations involving intra-band EN-DC parts. For this reason, RAN would request that, for RAN#91e, the following clarifications are done in RAN2 and RAN4:

* For RAN4:
	+ A) Clarify if higher order (i.e. those band combinations which the UE indicates support for explicitly in UE capability signalling) EN-DC band combinations with the common band on the LTE and NR side such as DC\_2A-7A-7A-66A-n66A and DC\_2A-71A\_n71A need to report a BCS for intra-band EN-DC (as defined in 38.101-3, section 5.3B.1), even if the UE doesn’t support the intra-band UL configurations DC\_66A\_n66A or DC\_71A\_n71A respectively. If the UE does not report the EN-DC BCS for such a combination, what can the network assume about the configuration limitations for the common bands (e.g. LTE band 71 and NR band n71) in the combination?
	+ B) Resolve the general question of classification of intra-band EN-DC band combinations according to UL support. If the UE doesn't support UL on intra-band EN-DC part of a band combination, is band combination classified as "intra-band EN-DC band combination"?
	+ C) Indicate the RAN4 understanding on A) and B) to RAN2 by the end of the first meeting week of RAN4#98e (to allow RAN2 to finalize their work).
	+ D) Agree (if necessary) CRs taking the conclusions of A) and B) into account.
* For RAN2:
	+ 1) Clarify based on RAN4 feedback to A) and B), the usage of "intra-band EN-DC combinations with inter-band components" (A) and "intra-band EN-DC" (B) in RAN2 specifications.
	+ 2) Agree (if necessary) CRs taking the conclusions of A), B) and 1) into account.

**2. Actions:**

**To RAN WG4 group.**

**ACTION:** RAN respectfully requests RAN4 to complete the following for RAN#91e:

A) Clarify if higher order EN-DC band combinations with the equivalent band on the LTE and NR side such as 2A-7A-7A-66A-n66A and DC\_2A-71A\_n71A need to report a BCS for intra-band EN-DC (as defined in 38.101-3, section 5.3B.1), even if the UE doesn’t support the intra-band UL configurations DC\_66A\_n66A or DC\_71A\_n71A respectively. If the UE does not report a BCS for such a combination, what can the network assume about the configuration limitations for the equivalent bands in the combination?

B) Resolve the general question of classification of intra-band EN-DC band combinations according to UL support. If the UE doesn't support UL on intra-band EN-DC part of a band combination, is band combination classified as "intra-band EN-DC band combination"?

C) Indicate the RAN4 understanding on A) and B) to RAN2 by the end of the first meeting week of RAN4#98e (to allow RAN2 to finalize their work).

D) Agree to necessary CRs taking the conclusions of A) and B) into account.

**To RAN WG2 group.**

**ACTION:** RAN respectfully requests RAN2 to complete the following for RAN#91e:

1) Clarify (if necessary), based on RAN4 feedback to A) and B), the usage of "intra-band EN-DC combinations with inter-band components" (A) and "intra-band EN-DC" (B) in their specifications.

2) Agree to necessary CRs taking the conclusions of A), B) and 1) into account.

**3. Date of Next TSG-RAN WG2 Meetings:**

3GPP RAN#91e 22 – 26 February 2021 Electronic Meeting