Agenda Item: 9.7.10

Source: Samsung

Title: On the support of intra-carrier DC in Rel-17 IAB

Document for: Discussion and Decision

SAMSUNG

Background

◇ This contribution is a re-submission of RP-202533 which was submitted in RAN#90-e

◇ Whether or not intra-carrier DC is within the scope of Rel-17 IAB had been discussed across several RAN/RAN WG meetings (RAN1#102-e, RAN1#103-e, RAN3#109-e and RAN#89-e), but there was no consensus

◇ In RAN#90-e, the issue was discussed again and the following was concluded [RP-210002]

> *- conclusion: RAN chairman: It seems we do not have consensus to include intra-carrier DC for IAB at this stage. We can certainly re-visit this in a future meeting, but I would encourage the proponents to do that only if there is evidence that positions of several opposing companies have changed.*

Observations on Support of Intra-Carrier DC

◇ There is no verification on a feasibility if intra-carrier DC can work for IAB

- ♦ One reason for the lack of a feasibility check on intra-carrier DC is that dual connectivity in 3GPP has always assumed the use of separate carriers since LTE and as a result, there is no common understanding on how intra-carrier DC operates

- ♦ Without a common understanding on how intra-carrier DC operates, it is difficult to determine whether it is something feasible or not

- ♦ Even if intra-carrier DC is deemed feasible, whether or not it is something beneficial to support in Rel-17 IAB is a separate matter which has not been estimated by any evaluations

◇ Without clear guidance from RAN, WGs are spending valuable time and effort arguing back and forth whether or not to support intra-carrier DC for IAB

- ♦ Rel-17 IAB has only limited TUs assigned to it (about 1 TU per meeting for RAN1/RAN2 and 1~2 TUs per meeting for RAN3)

- ♦ If RAN cannot provide the clear guidance on the issue, it is expected that all relevant WGs will continue to spend time and effort without being able to reach any convergence on how to move forward

Proposals

◇ Proposal 1: Conclude in RAN#91-e whether intra-carrier DC is within the WID scope for Rel-17 IAB

◇ Proposal 2: If consensus to include intra-carrier DC as part of Rel-17 IAB cannot be reached in RAN#91-e, all relevant discussions in Rel-17 time frame should be stopped