

RAN-R18-WS-eMBB-CEWiT
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RAN

3GPP TSG RAN Rel-18 workshop

RWS-210515

Electronic Meeting, June 28 - July 2, 2021

Agenda Item: 4.1

Source: CEWiT

Title: Email discussion summary for [RAN-R18-WS-eMBB-CEWiT]

Document for: Discussion

1 Introduction

This email discussion summary covers the following document from CEWiT:

- RWS-210489 "IAB Enhancements for Rel. 18"

2 General Comments

Companies are encouraged to provide general comments about the proposal

Feedback Form 1: General comments about the proposals (if any)

3 [First Round] Q&A on Proposals

Companies are encouraged to provide questions if any on the proposals in this section.

Feedback Form 2: [First round] Specific questions or comments if any along with extending support or no support (with reason if possible)

1 – Intel Corporation (UK) Ltd

1/ Can you clarify what you mean by "variations in backhaul link"

2/ Regarding the proposed enhancements to "NR in backhaul and multi-RAT in access", are you thinking that the IAB node would support both NR and LTE for the access link?

3/ The content slide mentions unlicensed but there is no other mention of unlicensed. Can you explain your thinking? Are you thinking of NR-U for the backhaul link, or that the IAB node might support NR access links in licensed and unlicensed spectrum?

4/ What is meant by "extending development in sidelink/V2X" in the context of IAB? Does it mean having IAB as relay node between sidelink UE and gNB?

2 – Lenovo Mobile Com. Technology

1: What's the "variations in backhaul link" means?

2: As for the "Direct connection between IAB nodes without going through donor-CU", how can a termination IAB node handle the DL/UL packets into UL/DL packets? And how can we to guarantee the security problem?

3: For "Extending developments in side-link/V2X", does it means both the SL and DL/UL link are belonging to the same transmission path?

Queries raised in the first round are answered below:

Re Intel's questions(#1)

1. Currently the IAB discussions are considering fixed topology. However, in a mobile IAB scenario, there will be relative movement between an IAB node mounted on a vehicle and its parent node, and that causes additional variations/issues in the backhaul link of the mobile IAB node.
2. Yes, we are thinking of a scenario in which UE is connected to an IAB node using various technologies. For e.g., the IAB node mounted on a vehicle should serve all users inside irrespective of the technology used by UE.
3. Focus is mainly on using the unlicensed band in FR2 and beyond 52.6 GHz in the IAB scenario for both backhaul and access communication. Areas of enhancement are resource sharing among backhaul and access in unlicensed, sharing COT, etc.
4. Main intention is to establish dynamic coordination among IAB nodes without going through the donor node, especially in interference management, resource sharing, and dual connectivity. The connection can be established between MT of two IAB nodes or DU of two IAB nodes. Developments in side-link can be reused to establish and maintain a connection at least in the former case.

Re Lenovo's questions(#2)

1. Currently the IAB discussions are considering fixed topology. However, in a mobile IAB scenario, there will be relative movement between an IAB node mounted on a vehicle and its parent node, and that causes additional variations/issues in the backhaul link of the mobile IAB node.
2. I doubt whether I understood your question correctly. The intention of the direct connection between IAB nodes is to establish dynamic coordination among nodes to enhance interference management and conflict resolution. For e.g., in the case of IAB dual connectivity, the interconnection between parent nodes can address conflicts associated with TDD configurations and signaling IA.
3. Main intention is to establish dynamic coordination among IAB nodes without going through the donor node, especially in interference management, resource sharing, and dual connectivity. The connection can be

established between MT of two IAB nodes or DU of two IAB nodes. Developments in side-link can be reused to establish and maintain a connection at least in the former case.

4 [Second Round] Q&A on Proposals

Companies are encouraged to provide questions if any on the proposals in this section.

Feedback Form 3: [Second round] Specific questions or comments if any along with extending support or no support (with reason if possible)

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5 Summary

In [RAN-R18-WS-eMBB-CEWiT], two rounds of Q&A were carried out regarding the contribution RWS-210489 IAB Enhancements for Rel. 18. This contribution provides views on study of enhanced IAB operation in Rel-18. Total 7 questions/comments were raised from 2 different companies, and CEWiT provided the corresponding responses. Questions were focused on

- a) Impact of mobile IAB on backhaul link
- b) IAB operation in unlicensed band
- c) Dynamic coordination between IAB nodes