RAN-R18-WS-crossFunc-DeutscheTelekom - Version 0.0.2
RAN

3GPP TSG RAN Rel-18 workshop **RWS-210616**

Electronic Meeting, June 28 - July 2, 2021

Agenda Item: **4.3**

Source: **Deutsche Telekom**

Title: **Email discussion summary for [RAN-R18-WS-crossFunc-Deutsche_Telekom]**

1 Introduction

This email discussion summary covers the following document:

RWS-210032 Deutsche Telekom & T-Mobile USA views on 3GPP RAN Rel-18 focus & content

2 1st Round

2.1 Comments to the Tdoc

Feedback Form 1: Comments in 1st round

1 – Intel Corporation (UK) Ltd Thank you for the contribution. Please see our Questions below: 1) For BS EMC proposal for massive MIMO - can you please share more details on how the standardized EMC measurement approach could look like? Also, is the proposal relevant to existing Rel-17 & Rel-18 BS EMC WI proposals (e.g. in RWS-210419)? 2) For spectrum flexibility, what is the use case for pairing FR1 DL and FR2 UL? What are the advantages of proposed spectrum flexibility from the operator perspective?
2 – Samsung Electronics Polska Thanks for the paper. We have the following question: In slide 7, what is DT's view on avoiding densification of macro radio networks? Is this related on TDD coverage. If yes, our think is that UL coveage is bottlenect in TDD systems and increase UL coverage with enhancing duplex schemes (as XDD we pointed out). We want to ask your interest about duplex enhancements for avoiding densification.

2.2 Questions to the Tdoc

2.3 Answers by moderator for 1st round

Many thanks for asking some question on our submitted document - we are happy to provide the following answers:

Anwer to INTEL 1):

Generally, we clearly see the need for a standardized EMC measurement mode which has to be used from all RAN technology suppliers to deliver comparable results. This test mode enables the authority of a country to perform EMC measurements on their own which are requested to get the permission to operate a site, if the EMC limits are predicted to be exceeded based on computations. It should be noted that such measurements are well established for antennas not supporting beam forming.

The new EMC measurement procedure is only required for antennas supporting beam forming.

Outline of procedure: The measurement device should be capable of questing to activate a specific measurement mode in the gNB. After measurement mode activation the gNB directes a beam towards the measurement device with the (defined) maximal possible Tx power. This must be hold over a specific period of time. Multi User MIMO has to be disabled for the EMC measurement period. Further details have to be clarified in the progress of work, e.g. if the transmitted signal needs to have specific content so that the measurement device is able to assign the received power to the measurement mode of the regarded gNB etc.

We did not check so far if our proposal is already covered by other WI proposals.

Anwer to INTEL 2):

In our Annex an illustration of the flexibility is outlined. There is no particular mention of FR2 UL. “High band” does not necessarily mean FR2, but could be for example n78. The flexibility is also not restricted. We see requests for use cases to upload huge amount of data from a device to a network at local spots. Hence a combination of broad FR2 UL channel with less brought DL channel is foreseeable.

Anwer to Samsung 1):

“avoiding densification of macro radio networks” refers to the fact that operators have more and mor problem finding appropriate site for extended macro deployment. This is true in urban, but also rural areas. Do network densification can only be done to a certain extend.

Any means to get better spectrum efficiency with new technologies are therefore appreciated under complexity and energy consumption consideration. This is NOT related to TDD only, but also applicable to FDD. Enhanced duplex schemes might be a candidate solution .. this includes the spectrum arrangement flexibility we describe on slide 11, but also might result in sub-band or full-band full duplexing.

3 2nd Round Questions or Comments

Please ask additional Questions or provide additional comments in the 2nd round

Feedback Form 3: 2nd Round

3.1 Answers by moderator for 2nd Round

No further Questions or Cemments were provided in the 2nd Round

Thanks for the interest and participation on the discussion