RAN-R18-WS-non-eMBB-EBU - Version 0.0.3
RAN

3GPP TSG RAN Rel-18 workshop

RWS-210564

Electronic Meeting, June 28 - July 2, 2021

Agenda Item: 4.2

Source: EBU

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

1 Introduction

This email discussion summary covers the following documents:

RWS-210077: ”Non-eMBB enhancements for Rel-18 Considerations on 3GPP Release 18 for Content Distribution”

2 Comments to the Tdocs (Round 1)

Feedback Form 1: Comments to TDocs

1 – HUAWEI TECHNOLOGIES Co. Ltd. [Huawei, HiSilicon] Q1: for Public Warning capability mentioned in P3, can this also be applied to NR MBS broadcast?
2 – BBC **MBS** BBC supports the evolution of NR MBS under Rel-18 and the topics proposed are relevant as potential enhancements for NR MBS.
3 – MediaTek Inc. We support the intention to study the BMUST alike mechanism to support simultaneous transmission between broadcast and unicast. Meanwhile we would like to also propose to study the simultaneous transmission between two broadcast services with the reference to ATSC3.0 for NG TV.
4 – CATT First a general comment: CATT supports NR MBS enh. in Rel-18. Then a few questions for clarification:

1) In the paper there is 'Support for low-latency streaming', so what is the main requirement (impact) to R17 NR MBS framework? Or is it related?

2) We would like to understand better what is needed for efficiency enhancements as mentioned in your paper? Is there any specific scenario for such improvement?

3) For coveragen enh as mentioned in your paper, could you clarify the main scenario and requirements?

Thanks!

3 Questions to the Tdocs (Round 1)

Feedback Form 2: Questions to TDocs

1 – Qualcomm Incorporated

5GTB

Regarding "time interleaving", this is an interesting proposal that was also discussed in the past (and the benefits were shown). Do you also consider frequency interleaving, as discussed in Rel-16?

2 – Intel Corporation (UK) Ltd

Q1. What is the motivation to support 5GC for LTE MBMS given that RAN and SA architectures are tightly coupled for both LTE MBSFN and NR MBS?

Q2. Details for time interleaving?

4 Answers by moderator (Round 1)

Huawei, HiSilicon: Q1: for Public Warning capability mentioned in P3, can this also be applied to NR MBS broadcast?

EBU: The EBU proposed to enhance LTE based 5G Terrestrial Broadcast by adding such a feature. Clearly, this does not preclude doing the same for NR MBS.

Mediatek Inc.

We support the intention to study the BMUST alike mechanism to support simultaneous transmission between broadcast and unicast. Meanwhile we would like to also propose to study the simultaneous transmission between two broadcast services with the reference to ATSC3.0 for NG TV.

EBU: We think that ATSC 3.0 is not within the scope of 3GPP, we should concentrate on LTE based 5G Terrestrial Broadcast and NR MBS.

CATT:

First a general comment: CATT supports NR MBS enh. in Rel-18.

Then a few questions for clarification:

1) In the paper there is 'Support for low-latency streaming', so what is the main requirement (impact) to R17 NR MBS framework? Or is it related?

2) We would like to understand better what is needed for efficiency enhancements as mentioned in your paper? Is there any specific scenario for such improvement?

3) For coveragen enh as mentioned in your paper, could you clarify the main scenario and requirements?

EBU:

on 1) EBU thinks that low-latency streaming is an important feature in order to improve performance of the broadcast system, as well as in hybrid situations with unicast and broadcast as complementary modes. This is probably more SA related, hence the RAN impact may be limited.

on 2) All enhancements would be welcome to further increase the performance of the system, i.e. increase coverage, capacity, more robust transmission, etc.

on 3) the most important use case for EBU Members for 3GPP technology is targeting portable and mobile devices (smartphones, vehicles) with TV and radio services

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Qualcomm:

Regarding "time interleaving", this is an interesting proposal that was also discussed in the past (and the benefits were shown). Do you also consider frequency interleaving, as discussed in Rel-16?

EBU: yes, and as soon as possible, please, in the past there was not enough time to properly treat the proposals at the time when they were submitted, so EBU hopes that now these features can be seriously dealt with

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Intel:

Q1. What is the motivation to support 5GC for LTE MBMS given that RAN and SA architectures are tightly coupled for both LTE MBSFN and NR MBS?

Q2. Details for time interleaving?

EBU: Q1: This is mainly relevant in a situation where an MNO is commissioned to offer linear TV and radio services using LTE based 5G Terrestrial Broadcast. If the MNO has already migrated away from 4G core it still should be possible to make use of all LTE based 5G Terrestrial Broadcast features as specified in Rel-14/16 including the core-related functionalities and protocols. Setting up a 4GC just to support a LTE based 5G Terrestrial Broadcast RAN would not be efficient.

Q2: More information on this can be found in a contribution to RAN1 (R1-1913343 - "On the performance evaluation of HARQ-based time-interleaving for LTE-based 5G terrestrial broadcast ", EBU, BBC, IRT)

5 Comments to the Tdocs (Round 2)

Feedback Form 3: Comments to TDocs (Round 2)

6 Questions to the Tdocs (Round 2)

Feedback Form 4: Questions to TDocs (Round 2)

7 Answers by moderator (Round 2)