

3GPP TSG RAN Rel-18 workshop

RWS-210608

Electronic Meeting, June 28 - July 2, 2021

**Agenda Item:** 4.3

**Source:** BBC

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

---

## 1 Introduction

This email discussion summary covers the following documents:

RWS-210133 "On Media Delivery for Rel-18"

---

## 2 Comments to the Tdocs - Round 1

### Feedback Form 1: Comments to the Tdocs

**1 – HUAWEI TECHNOLOGIES Co. Ltd.**

[Huawei, HiSilicon] Q1. What coverage is expected to be for the proposal of coverage? Is the enhanced requirement from NW perspective or from a particular UE perspective?

Q2. Not sure how the proposal of PHY time interleaving is transparent to UE hardware. Can you clarify?

---

## 3 Questions to the Tdocs - Round 1

### Feedback Form 2: Questions to the Tdocs

**1 – Intel Corporation (UK) Ltd**

Question for clarification: any details for HARQ/physical layer time interleaving?

---

## 4 Answers by moderator - Round 1

**Comment 1 - HUAWEI TECHNOLOGIES Co. Ltd.**

[Huawei, HiSilicon] Q1. What coverage is expected to be for the proposal of coverage? Is the enhanced requirement from NW perspective or from a particular UE perspective? Q2. Not sure how the proposal of PHY time interleaving is transparent to UE hardware. Can you clarify?

BBC reply:

Thank you for your questions.

Q1. We don't have a specific coverage in mind, but rather support techniques to enhance coverage generally with a view to improving the reach of BBC services delivered over those networks, something which is especially challenging in rural areas. The enhancements could be from either a NW or UE perspective.

Q2. Our thinking was perhaps to consider a study of different PHY time interleaving techniques in order to better understand the trade-offs between performance vs. transparency to UE hardware.

### Question 1 - Intel Corporation (UK) Ltd

*Question for clarification: any details for HARQ/physical layer time interleaving?*

BBC reply:

Thank you for your question. Please see Tdoc [R1-1913343] for further details.

---

## 5 Comments to the Tdocs - Round 2

### Feedback Form 3: Comments to the Tdocs - Round 2

|  |
|--|
|  |
|--|

---

## 6 Questions to the Tdocs - Round 2

### Feedback Form 4: Questions to the Tdocs - Round 2

|  |
|--|
|  |
|--|

---

## 7 Answers by moderator - Round 2

N/A

---

## 8 Summary

In RWS-210133, "On Media Delivery in Rel-18", the BBC proposed a number features for inclusion in Release 18.

A number of enhancements were proposed to MBS, including the addition of **receive-only mode**, **physical layer time interleaving** and **completion of any work left over from Rel-17**.

On the specific question of physical layer time interleaving, questions were received Intel and Huawei resulting in our thinking that a study could be carried out in Rel-18 to better understand the impacts and trade-offs involved between potential of any techniques to UE transparency and performance enhancements.

Various MBS enhancements were also proposed separately by Ericsson, CATT, Intel, ZTE, Sony, Spreadtrum, LG Uplus, 5G-MAG, EBU.

Relating to other topics, one comment was received related to our proposal to **study further techniques to enhance cell coverage**. We confirmed that our thinking was specifically related to our obligation to provide nationwide coverage of our services and that the area of interest in this instance is the delivery of relatively low bit-rate audio (radio) services in rural areas and that enhancements could be from either on the UE or network perspective.

No comments/questions were received relating to our other proposals to **study universal access to unicast/multicast/broadcast services** (e.g. FS\_PALS} nor relating to **studying potential uplink enhancements via a gap analysis against AV Production requirements**.

Finally, comments/questions relating to the **study of Broadcast/Multicast and Unicast Superposition Transmission (BMUST)** were addressed in a separate email thread as [RAN-R18-WS-non-eMBB-BBC] and are summarised in RWS-210554.