**3GPP TSG RAN WG1 #106-e R1-210XXXX**

**e-Meeting, August 16th – 27th, 2021**

**Agenda item:** 7.1

**Source:** Moderator (CATT)

**Title:** Summary of [106-e-NR-7.1CRs-05]

**Document for:** Discussion and Decision

# Introduction

This document is created to facilitate the email discussion of “[106-e-NR-7.1CRs-05] Issue#10: Discussion on cancellation of semi-static transmission due to dynamic transmission”. This email thread is triggered by the following draft CR.

[R1-2106928](file:///D:\Documents\3GPP%20documents\RAN1\TSGR1_106-e\Docs\R1-2106928.zip) Discussion on cancellation of semi-static transmission due to dynamic transmission CATT

# Company views

For operation on a single carrier in unpaired spectrum, for an overlapping case of a DL/UL semi-static transmission and an UL/DL dynamic transmission which collides with semi-static DL/UL symbol(s) or SSB/valid PRACH occasion,

* Understanding 1: both the dynamic transmission colliding with semi-static DL/UL symbol(s) or SSB/valid PRACH occasion and the semi-static transmission overlapping with the dynamic transmission are not transmitted / received;
* Understanding 2: semi-static transmission could be transmitted / received while dynamic transmission colliding with semi-static DL/UL symbol(s) or SSB/valid PRACH occasion is dropped.

More detailed elaboration of the case and the above understandings can be found in R1-2106928.

**Q1: Do you agree with understanding 1 or 2 above?**

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| --- | --- | --- |
| **Company** | **Understanding 1 or 2** | **Comment** |
| vivo | Understanding 1 | Current spec. reflects understanding 1. |
| Huawei, HiSilicon | Und. 2 |  |
| Qualcomm | Not agree | Spec does not specify the order of the texts. Therefore, it is up to UE which order to process the relevant steps and hence up to UE whether to transmit/receive semi-static transmission. |
| OPPO |  | We agree with QC that it is up to UE implementation whether to process the semi-static UL/DL transmission. |
| Ericsson | Either is fine. | If possible, it would be good to clarify UE behavior when such configuration and scheduling occurs. |
| ZTE | Understanding 2 | Understand 1 is not only inefficient due to the unnecessary dropping of the semi-static transmission, but would also imply that network should avoid configuring semi-static DL/UL transmission together with scheduling UL/DL dynamic transmission for typical cases. This would cause big restriction for network implementation especially when repetition is enabled for the dynamic transmission.  Per our understanding, there should be no timeline issue for Understanding 2, as a UE should always know that dynamic UL/DL transmission is not allowed on semi-static DL/UL symbol(s) or SSB/valid PRACH occasion. Then, a UE could always prepare DL/UL reception/transmission on these symbols for semi-static signals. |
| DOCOMO | Understanding 1 | Current spec says collision handling for 1) dynamic DL/UL transmission vs semi-static UL/DL transmission and 2) dynamic DL/UL transmission w/ repetitions vs semi-static UL/DL symbols are carried out independently if scheduling/triggering DCI for the dynamic DL/UL transmission is detected |

**Q2: Do you think it necessary to clarify the intended UE behavior if there are different understandings among companies? If not, why?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Yes or No** | **Comment** |
| vivo | Not necessary for Rel-15 and Rel-16.  Open for Rel-17 if there are different understandings among companies. | If there are different understandings,   * For Rel-15 and Rel-16, it may not be possible to have a unified UE behavior due to NBC concern. * But we prefer have a clear UE behavior for future release. |
| Huawei, HiSilicon | OK to clarify. | If cannot be converged, our understanding is that for R15 the resulted effect would be up to UE implementation - similar issue as to RACH. For R16, a clarification would be preferred. |
| Qualcomm | No | It causes NBC issue. |
| OPPO | Not | It can be up to UE implementation. |
| Ericsson | If possible, **Yes**. |  |
| ZTE | Yes at least for the case that the dynamic transmission is scheduled with repetition | As commented above, at least in case that the dynamic transmission is scheduled with repetition, no clarification of intended UE behavior would cause big restrictions on network implementation. |
| DOCOMO | OK to clarify for Rel-16 |  |

# Conclusion

To be added after the discussion.