**3GPP TSG RAN WG1 Meeting #104B-e                     R1-21xxxxx**

**eMeeting, April 12th – 20th, 2021**

**Agenda Item: 7.2.2**

**Source: Moderator (Charter Communications)**

**Title: Feature lead summary on initial access procedures enhancements**

**Document for: Discussion and Decision**

# Introduction

Corrections on NR-U initial access procedures have been submitted at RAN1#104b e-meeting. The preparation phase (April 8th – 9th) determined that correction labelled 3-2 is deemed as essential correction, and will be discussed at RAN1#104b-e by email discussion.

[104b-e-NR-NRU-03] Email discussion/approval on initial access procedures until Apr-15 – Amitav (Charter)

* IA 3-2

# Corrections for RACH

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| --- | --- | --- |
| Issue # | Description | Tdoc |
| 3-2 | PUSCH for Type 2 RA: The UEs shall not transmit any transmissions in idle period of FBE, regardless tdd-UL-DL-ConfigurationCommon is provided or not. The description for PRACH validation in TS 38.213 section 8.1 is correctly captured for both cases. However, for the MsgA PUSCH validation, the restriction is only captured for the case that a UE is provided tdd-UL-DL-ConfigurationCommon. | R1-2103486 [1] |

================== Start of TP#1 for TS 38.213 v16.5.0 ===================

## 8.1A PUSCH for Type-2 random access procedure

< Unchanged parts are omitted >

A PUSCH occasion is valid if it does not overlap in time and frequency with any valid PRACH occasion associated with either a Type-1 random access procedure or a Type-2 random access procedure. Additionally, for unpaired spectrum and for SS/PBCH blocks with indexes provided by *ssb-PositionsInBurst* in *SIB1* or by *ServingCellConfigCommon*

- if a UE is not provided *tdd-UL-DL-ConfigurationCommon*, a PUSCH occasion is valid if the PUSCH occasion

- does not precede a SS/PBCH block in the PUSCH slot, and

- starts at least $N\_{gap}$ symbols after a last SS/PBCH block symbol, where $N\_{gap}$ is provided in Table 8.1-2 and, if *channelAccessMode* = *semistatic* is provided, does not overlap with a set of consecutive symbols before the start of a next channel occupancy time where the UE does not transmit [15, TS 37.213].

- if a UE is provided *tdd-UL-DL-ConfigurationCommon*, a PUSCH occasion is valid if the PUSCH occasion

- is within UL symbols, or

- does not precede a SS/PBCH block in the PUSCH slot, and

- starts at least $N\_{gap}$ symbols after a last downlink symbol and at least $N\_{gap}$ symbols after a last SS/PBCH block symbol, where $N\_{gap}$ is provided in Table 8.1-2 and, if *channelAccessMode* = *semistatic* is provided, does not overlap with a set of consecutive symbols before the start of a next channel occupancy time where the UE does not transmit [15, TS 37.213].

< Unchanged parts are omitted >

================== End of TP#1 for TS 38.213 v16.5.0 ===================

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| **Company** | **Views** |
| Samsung | We support this TP.  |
| ZTE, Sanechips | We support this TP. |
| Huawei, HiSilicon | Support the TP |
| Vivo | We support the TP |
| LGE  | Support the TP |
| WILUS | We support this TP. |
| Spreadtrum | We support the TP. |
| Sharp | We support the TP. |
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|  |  |

# References

1. R1-2103486, Correction on MsgA PUSCH validation for FBE, ZTE, Sanechips