**3GPP TSG RAN WG1#106 R1-2nnnnnn**

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

**Agenda Item: 7.2.2**

**Source: Moderator (Lenovo)**

**Title: Feature lead summary for NR-U DL Signals and Channels**

**Document for: Discussion, Decision**

# Topic DL-A: PDCCH Monitoring

## Issue DL-A1 (R1-2107484): SSSG Switching

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| Background:According to the specification, if UE detects any DCI by monitoring a PDCCH candidate that is associated with a search space set belonging to SSSG#0, UE will switch monitoring from SSSG#0 to SSSG#1. However, sometimes, one PDCCH candidate may be associated with multiple search space sets. For example, when PDCCH monitoring occasions of the two search space sets are overlapped and the same CORESET is associated with them, UE will try to detect DCI on the PDCCH candidate(s) over the same CCEs according to the two search space sets. Then, we see there is an ambiguity in the specification: whether UE should perform SSSG switching or not if UE detects a DCI on a PDCCH candidate associated with multiple search space sets and not all of the associated search space sets belong to SSSG#0, e.g., no *searchSpaceGroupIdList* is provide in some of thesearch space sets. In our view, in such case, UE still needs to perform SSSG switching from SSSG#0 to SSSG#1 since NW is supposed to occupy the unlicensed channel to transmit the DCI. However, current wording in the specification in not clear if such case happens, and different understanding on the specification may cause the ambiguity between UE and NW. |
| Proposal:**Proposal 1: Support text proposal TP#1 for TS38.213 Section 10.4 to avoid ambiguity of SSSG switching when a UE is not provided with *SearchSpaceSwitchTrigger*.**---------------------------- Text Proposal TP#1 for 38.213, Section 10.4 -----------------------------10.4 Search space set group switching\*\*\* Unchanged text omitted \*\*\*If a UE is not provided *SearchSpaceSwitchTrigger* for a serving cell,- if the UE detects a DCI format by monitoring PDCCH according to at least a search space set with group index 0, the UE starts monitoring PDCCH according to search space sets with group index 1, and stops monitoring PDCCH according to search space sets with group index 0, for the serving cell at a first slot that is at least $P\_{switch}$ symbols after the last symbol of the PDCCH with the DCI format, the UE sets the timer value to the value provided by *searchSpaceSwitchTimer* if the UE detects a DCI format by monitoring PDCCH in any search space set]\*\*\* Unchanged text omitted \*\*\*------------------------------------- End Text Proposal ----------------------------------------------- |

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