**3GPP TSG RAN WG1#100bis-e R1-**

**e-Meeting, April 20th – 30th, 2020**

**Agenda Item: 7.2.2.1.2**

**Source: Moderator (Lenovo)**

**Title: Text proposal for determining remaining channel occupancy duration (NR-U DL Signals and Channels)**

**Document for: Discussion, Decision**

# TP for 38.213 (based on v16.1.0)

### 11.1.1 UE procedure for determining slot format

This clause applies for a serving cell that is included in a set of serving cells configured to a UE by *slotFormatCombToAddModList* and *slotFormatCombToReleaseList*.

If a UE is configured by higher layers with parameter *SlotFormatIndicator*, the UE is provided a SFI-RNTI by *sfi-RNTI* and with a payload size of DCI format 2\_0 by *dci-PayloadSize*.

The UE is also provided in one or more serving cells with a configuration for a search space set and a corresponding CORESET for monitoring PDCCH candidates for DCI format 2\_0 with a CCE aggregation level of CCEs as described in Clause 10.1. The PDCCH candidates are the first PDCCH candidates for CCE aggregation level for search space set in CORESET .



For each serving cell in the set of serving cells, the UE can be provided:

- an identity of the serving cell by *servingCellId*

- a location of a SFI-index field in DCI format 2\_0 by *positionInDCI*

- a set of slot format combinations by *slotFormatCombinations*, where each slot format combination in the set of slot format combinations includes

- one or more slot formats indicated by a respective *slotFormats* for the slot format combination, and

- a mapping for the slot format combination provided by *slotFormats* to a corresponding SFI-index field value in DCI format 2\_0 provided by *slotFormatCombinationId*

- for unpaired spectrum operation, a reference SCS configuration by *subcarrierSpacing* and, when a supplementary UL carrier is configured for the serving cell, a reference SCS configuration by *subcarrierSpacing2* for the supplementary UL carrier



- for paired spectrum operation, a reference SCS configuration for a DL BWP by *subcarrierSpacing* and a reference SCS configuration for an UL BWP by *subcarrierSpacing2*



- a location of a RB set indicator field in DCI format 2\_0 that is a bitmap having a one-to-one mapping with the RB sets [6, TS 38.214] of the serving cell, where a value of '0' indicates that an RB set is available for receptions and a value of '1' indicates that an RB set is not available for receptions, by *availableRB-SetPerCell-r16*. The RB set indicator field includes bits where is the number of RB sets in the serving cell. An RB set remains available or unavailable until the end of the indicated channel occupancy duration

- a location of a channel occupancy duration field in DCI format 2\_0, by *CO-DurationPerCell-r16*, that indicates a remaining channel occupancy duration for the serving cell starting from the beginning of the slot where the UE detects the DCI format 2\_0 by providing a value from *CO-DurationList-r16*. The channel occupancy duration field includes bits, where is the number of values provided by *CO-DurationList-r16*. If *CO-DurationPerCell-r16* is not provided, the remaining channel occupancy duration for the serving cell is a number of slots, starting from the beginning of the slot where the UE detects the DCI format 2\_0, that the SFI-index field value provides corresponding slot formats

- a location of a search space set group switching field in DCI format 2\_0, by *SearchSpaceSwitchTrigger-r16*, that indicates a group from two groups of search space sets for PDCCH monitoring for scheduling on the serving cell as described in Clause 10.4.

A SFI-index field value in a DCI format 2\_0 indicates to a UE a slot format for each slot in a number of slots for each DL BWP or each UL BWP starting from a slot where the UE detects the DCI format 2\_0. The number of slots is equal to or larger than a PDCCH monitoring periodicity for DCI format 2\_0. The SFI-index field includes bits where maxSFIindex is the maximum value of the values provided by corresponding *slotFormatCombinationId*. A slot format is identified by a corresponding format index as provided in Table 11.1.1-1 where 'D' denotes a downlink symbol, 'U' denotes an uplink symbol, and 'F' denotes a flexible symbol.



If a PDCCH monitoring periodicity for DCI format 2\_0, provided to a UE for the search space set by *monitoringSlotPeriodicityAndOffset*,is smaller than a duration of a slot format combination the UE obtains at a PDCCH monitoring occasion for DCI format 2\_0 by a corresponding SFI-index field value, and the UE detects more than one DCI formats 2\_0 indicating a slot format for a slot, the UE expects each of the more than one DCI formats 2\_0 to indicate a same format for the slot.



A UE does not expect to be configured to monitor PDCCH for DCI format 2\_0 on a second serving cell that uses larger SCS than the serving cell.

----------------------------------- UNCHANGED PARTS OMITTED ---------------------------------------------