3GPP TSG-RAN WG4 Meeting #98-bis-eR4-2105411

**Electronic Meeting, 12th - 20th April, 2021**

**Title:** Reply LS on the maximum/minimum channel bandwidths and channelization for NR operation in 52.6 to 71GHz

**Response to:** R1-2102128

**Release:** Rel-17

**Work Item:** NR\_ext\_to\_71GHz

**Source:** RAN WG4

**To:** RAN WG1

**Contact Person:**

**Name:** Jiwoo Kim

**E-mail Address:** jiwoo.kim@intel.com

**1. Overall Description:**

RAN4 would like to thank RAN1 for the incoming LS on channel bandwidths and channelization issues. In the April meeting, RAN4 officially kicks off the discussion for the WI NR\_ext\_to\_71GHz. The issues related to channelization aspects is still under discussion in RAN4. It will take several meetings to decide all of these issues.

Based on the progress in RAN4#98bis-e, the minimum channel bandwidths for NR operation in 52.6 GHz to 71 GHz were discussed, and the following agreements were made:

* RAN1 question for 120 kHz SCS
  + Option 1-1: 100 MHz
  + Option 1-2: 200 MHz
  + Option 1-3: 400 MHz
* RAN4 decision is option 1-1: 100 MHz
* RAN1 question for 480 kHz SCS
  + Option 2-1: 200 MHz
  + Option 2-2: 400 MHz
* RAN4 decision is option 2-2: 400 MHz
* RAN1 question for 960 kHz SCS
  + Option 3-1: 400 MHz
  + Option 3-2: 800 MHz
  + Option 3-3: same value as the maximum channel bandwidth for 960 kHz SCS
* RAN4 decision is 3-1: 400 MHz

Additionally, RAN4 agreed on the following maximum channel bandwidths for NR operation in 52.6 GHz to 71 GHz as follow:

* For 120 kHz SCS, 400 MHz
* For 480 kHz SCS, 1600 MHz

The maximum channel bandwidth for 960 kHz SCS is still TBD and RAN4 will inform RAN1 once RAN4 reached an agreement.

These channel bandwidths agreements aim to apply to both licensed and unlicensed bands. However, this is subject to further review of licensed spectrum block sizes.

For other RAN1 questions on channelization and number of RBs for each channel bandwidths, RAN4 currently kick off the discussions and needs more time to conclude. RAN4 will further inform once there is any update.

**2. Actions:**

**To RAN1:**

RAN4 would like RAN1 to consider the information above for their further design of the NR physical layer.

**3. Date of Next RAN4 Meetings:**

TSG-RAN WG4 Meeting #99-e 19 - 27 May 2021 Online

TSG-RAN WG4 Meeting #100-e 23 - 27 Aug 2021 Online