**3GPP TSG RAN WG1 Meeting #114 R1-23xxxxx**

**Toulouse, France, 21st – 25th August 2023**

**Title:** [Draft] LS on reduced peak data rate for Rel-18 eRedCap UEs

**Response to:**

**Release:** Rel-18

**Work Item:** Enhanced support of reduced capability NR devices (NR\_redcap\_enh-Core)

**Source:** Ericsson [To be RAN1]

**To:** RAN2

**Cc:** RAN4

**Contact person:** Johan Bergman, johan (dot) bergman (at) ericsson (dot) com

**Send any reply LS to:** 3GPP Liaisons Coordinator, <mailto:3GPPLiaison@etsi.org>

**Attachments:** None

# 1 Overall description

RAN1 has agreed the following for the Rel-18 eRedCap WI objective on peak data rate reduction, which seems to have specification impacts at least on TS 36.306 clause 4.1.2 (‘Supported max data rate for DL/UL’).

* The UE signals peak data rate related parameters *vLayers*, *Qm* and *f* corresponding to 10 Mbps.
  + No new values for the above parameters will be introduced for Rel-18 eRedCap.
* For UE peak data rate reduction with UE BB bandwidth reduction (i.e., FG 48-1),
  + The 10-Mbps peak rate target corresponds to a *vLayers·Qm·f* of 3.2.
  + This is assuming 5 MHz bandwidth in the TS 38.306 peak rate expression. That is,  is the maximum RB allocation in bandwidth  with numerology , as defined in clause 5.3 in TS 38.101-1, where  always corresponds to 5 MHz for all bands.
* For UE peak data rate reduction without UE BB bandwidth reduction (i.e., FG 48-2),
  + When *vLayers* = 1, the 10-Mbps peak rate target corresponds to a *vLayers·Qm·f* of 0.75.
  + When *vLayers* = 2, the peak rate target corresponds to a *vLayers·Qm·f* of 0.8.
  + This is assuming 20 MHz bandwidth in the TS 38.306 peak rate expression. That is,  is the maximum RB allocation in bandwidth  with numerology , as defined in clause 5.3 in TS 38.101-1, where  always corresponds to 20 MHz for all bands.
* In all cases, the same value for *vLayers·Qm·f* is used for DL and UL.

RAN1 respectfully requests RAN2 to take the above into account in their future work.

# 2 Actions

**To RAN2:**

**ACTION:** RAN1 respectfully requests RAN2 to take the above into account in their future work.

# 3 Dates of next TSG-RAN WG1 meetings

TSG-RAN WG1 Meeting #114-bis 9th – 13th October 2023 Xiamen, CN

TSG-RAN WG1 Meeting #115 13th – 17th November 2023 Chicago, US