**3GPP TSG-RAN4 Meeting #106 *R4-2303259***

**Athens, Greece, 27th Feb. – 3rd March, 2023**

**Agenda item:** 9.30.4

**Source:** Moderator (Ericsson)

**Title:** WF on R18 RedCap RRM requirements

**Document for:** Approval

### Defining of requirements for eDRX cycle > 10.24 sec in FR1 and FR2

**Serving cell requirements in RRC Inactive state for eDRX > 10.24**

* + Option 1: Idle state eDRX requirements for eDRX cycle > 10.24 sec are used as baseline for Inactive state
    - Option 1a:
      * Maximum INACTIVE (RAN paging) eDRX length = 10485.76s
      * 1.28s ≤ PTW length ≤ IDLE state PTW length, with 1.28s granularity
  + Option 2: RAN4 to await progress in RAN2/CT/SA to discuss and specify RRM core requirements for eDRX in RRC\_INACTIVE state.

**Neighbour cell requirements in RRC Inactive state for eDRX > 10.24**

Option 1: Idle state eDRX requirements for eDRX cycle > 10.24 sec are used as baseline for Inactive state

* + - Option 1a:
      * Maximum INACTIVE (RAN paging) eDRX length = 10485.76s
      * 1.28s ≤ PTW length ≤ IDLE state PTW length, with 1.28s granularity
  + Option 2: RAN4 to await progress in RAN2/CT/SA to discuss and specify RRM core requirements for eDRX in RRC\_INACTIVE state.

**When configured with both IDLE and INACTIVE eDRX configurations for serving cell measurements**

* + Option 1: For R18 RedCap UE in inactive mode with both RRC\_IDLE eDRX configuration and RRC\_INACTIVE eDRX configuration which are larger than 10.24s, measurement requirements on serving cell wait for RAN2 conclusion.
  + Option 2: Requirement based on T (according to clause 7.1 in TS38.304) needs discussions.

**When configured with both IDLE and INACTIVE eDRX configurations for neighbour cell measurements**

* + Option 1: For R18 RedCap UE in inactive mode with both RRC\_IDLE eDRX configuration and RRC\_INACTIVE eDRX configuration which are larger than 10.24s, UE performs intra-frequency/inter-frequency measurement according to a fixed period rather than T(s).

**When to measure when configured with both IDLE and INACTIVE eDRX configurations for serving and neighbour cell measurements**

* + Option 1: For R18 RedCap UE in inactive mode with both RRC\_IDLE eDRX configuration and RRC\_INACTIVE eDRX configuration which are larger than 10.24s, UE shall perform measurements within PTW(s) for both idle eDRX and inactive eDRX.

**CG-SDT requirements with PTW**

* + Option 1: New CG-SDT requirement shall be specified for Rel-18 eRedCap UE with PTW. Details are FFS.

### RRM impact due to baseband reduction

**RRM impact of baseband BW reduction in FR1**

* + FFS on possible impacts on SIB1 reading and paging reception related RRM requirements.

**RAN4 impact due to THARQ**

* + Option 1: If RAN1 agree on reduction of THARQ RAN4 would capture the changes accordingly.

**RRM impact of peak data rate reduction in FR1**

* + No RRM impact due to peak data rate reduction objective in FR1.

### Applicability of Rel-17 RLM/BFD relaxation requirements to Rel-18 RedCap

**Applicability of Rel-17 RLM/BFD relaxation requirements to Rel-18 RedCap**

* + Option 1: RAN4 to specify the RLM/BFD relaxations for RedCap UEs as a part of eRedCap WI.