**3GPP TSG-RAN WG2 Meeting #118-e \_R2-2206620**

**Online, 09 May – 20 May, 2022**

**Title [Draft]** LS on the maximum PTW length of IDLE eDRX

**Reply to:** -

**Release:** Release 17

**Work Item:** NR\_redcap-Core

**Source:** Huawei, HiSilicon [To be RAN2]

**To:** RAN3, CT1

**Cc:** -

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**Attachments:** None

**1. Overall description**

RAN2 have discussed the eDRX configuration for RedCap UEs. In RAN2#115, the PTW length and its granularity have been agreed.

1. The maximum PTW length is 40.96s when IDLE eDRX cycle is longer than 10.24s.
2. The minimum PTW length is 1.28s and the step length/granularity of PTW length is 1.28 when IDLE eDRX cycle is longer than 10.24s.

However, there is a misalignment on the maximum PTW length between RAN2 and RAN3/CT1 current specification. According to the current XnAP and F1AP singalling, the maximum length of NR Paging Time Window is defined as 20.48 seconds.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** |
| NR Paging eDRX Cycle Idle | M |  | ENUMERATED(hfquarter, hfhalf, hf1, hf2, hf4, hf8, hf16, hf32, hf64, hf128, hf256, hf512, hf1024, …) | TeDRX,CN defined in TS 38.304 [24]. Unit: [number of hyperframes]. |
| NR Paging Time Window | O |  | ENUMERATED(s1, s2, s3, s4, s5, s6, s7, s8, s9, s10, s11, s12, s13, s14, s15, s16, …) | Unit: [1.28 second]. |

The same issue occurs in TS 24.008.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| WB-S1 mode WB-N1 mode and NR connected to 5GCN  The field contains the PTW value in seconds for WB-S1 mode, WB-N1 mode and NR connected to 5GCN. The PTW value is used as specified in 3GPP TS 23.682 [133a] and 3GPP TS 23.501 [166]. The PTW value is derived as follows:  bit | | | | |
| 8 | 7 | 6 | 5 | Paging Time Window length |
| 0 | 0 | 0 | 0 | 1,28 seconds |
| 0 | 0 | 0 | 1 | 2,56 seconds |
| 0 | 0 | 1 | 0 | 3,84 seconds |
| 0 | 0 | 1 | 1 | 5,12 seconds |
| 0 | 1 | 0 | 0 | 6,4 seconds |
| 0 | 1 | 0 | 1 | 7,68 seconds |
| 0 | 1 | 1 | 0 | 8,96 seconds |
| 0 | 1 | 1 | 1 | 10,24 seconds |
| 1 | 0 | 0 | 0 | 11,52 seconds |
| 1 | 0 | 0 | 1 | 12,8 seconds |
| 1 | 0 | 1 | 0 | 14,08 seconds |
| 1 | 0 | 1 | 1 | 15,36 seconds |
| 1 | 1 | 0 | 0 | 16,64 seconds |
| 1 | 1 | 0 | 1 | 17,92 seconds |
| 1 | 1 | 1 | 0 | 19,20 seconds |
| 1 | 1 | 1 | 1 | 20,48 seconds |
|  | | | | |

From RAN2’s perspective, it is necessary to avoid the misalignment on the maximum PTW length and suggest to update the PTW length in related protocols.

**2. Actions**

**To RAN3/CT1 group:**

**ACTION:** RAN2 respectfully asks RAN3/CT1 to consider the RAN2 agreements on maximum PTW length (as 40.96 seconds) and update the PTW length in their related protocols, and to provide feedback if needed.

**3. Dates of next TSG RAN WG2 meetings**

TSG RAN WG2 Meeting #119-e 22nd – 26th August 2022 Online, E-meeting

TSG RAN WG2 Meeting #119-bis-e 10th – 19th October 2022 Online, E-meeting