**3GPP TSG-RAN WG1 Meeting #106-eR1-210xxxx**

**e-Meeting, 16th – 27th August 2021**

**Title:** [Draft] LS on RAN1 agreements on RAN2-led features for RedCap

**Response to:**

**Release:** Rel-17

**Work Item:** Support of reduced capability NR devices (NR\_redcap-Core)

**Source:** NTT DOCOMO, INC. [to be RAN1]

**To:** RAN2

**Cc:**

**Contact person:** Shinya Kumagai, shinya.kumagai (at) docomo-lab.com

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

**Attachments:**

# 1 Overall description

RAN1 discussed RAN1 aspects on RAN2-led features for RedCap and agreed to send RAN2-related agreements/working assumptions/conclusions to RAN2 to facilitate their work on RAN2-led features for RedCap. RAN1 respectfully asks RAN2 to take the agreements/working assumptions/conclusions into account in their further work on RAN2-led features for RedCap and provide feedback, if any.

Followings are the agreement/conclusions on RAN1 aspects on RAN2-led features for RedCap made in RAN1#106-e meeting:

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| **Agreement**Confirm the following working assumption with the modifications in red:* For 4-step RACH, support the early indication of RedCap UEs at least in Msg1.
	+ The early indication in Msg1 can be configured to be enabled/disabled via SIB
		- ~~FFS how to support enable/disable the early indication~~
	+ ~~FFS details e.g.:~~ From RAN1 perspective, the following methods can be used for early indication both for shared initial UL BWP and separate initial UL BWP (if supported)
		- separate PRACH resource
		- PRACH preamble partitioning
		- ~~FFS: whether/how to address RA-RNTI overlapping issue~~
	+ ~~FFS the possibility of supporting Msg3 for the early indication~~

Whether/how to support early indication of RedCap UEs in Msg3 in Rel-17 is up to RAN2.Conclusion* Whether there is RA-RNTI overlapping issue and how to address RA-RNTI overlapping issue in the early indication of RedCap UEs in Msg1 in Rel-17 is up to RAN2.

Conclusion* There is no consensus in RAN1 on whether to have the access barring indication in DCI scheduling SIB1, and RAN1 can come back if triggered by RAN2.
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For reference, RAN1 also agreed following RAN2-related agreement in RAN1#106-e meeting:

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| **Agreement*** In case a separate initial UL BWP is configured for RedCap Ues, it is supported that the network can enable/disable intra-slot PUCCH frequency hopping within the separate initial UL BWP in the PUCCH resource for HARQ feedback for Msg4/MsgB for RedCap UEs.
	+ Working assumption: The frequency hopping is enabled/disabled at least via SIB.
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# 2 Actions

**To RAN2:**

**ACTION:** RAN1 respectfully asks RAN2 to take the above into account in their further work on RAN2-led features for RedCap and provide feedback, if any.

# 3 Dates of next TSG-RAN WG1 meetings

TSG-RAN WG1 Meeting #106bis-e 11th – 19th October 2021 Online

TSG-RAN WG1 Meeting #107-e 11th – 19th November 2021 Online