**3GPP TSG RAN WG2 Meeting #131 R2-250xxxx
Bengaluru, India, August 25 – 29, 2025**

**Title: [Draft] LS on when RRC layer submits periodic CSI inference configuration to lower layer**

**Response to:**

**Release: Release 19**

**Work Item: NR\_AIML\_air-Core**

**Source: Apple [to be RAN2]**

**To: RAN1**

**Cc:**

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

**Attachments: None**

1 Overall description

In RAN2#131, RAN2 can’t achieve consensus on how to correctly capture the following **part marked in bold** in RAN1 Reply LS (R1-2410898) in RRC running CR:

|  |
| --- |
| <omit unrelated text>* In Step 4, UE reports applicability for all the above A) one or more *CSI-ReportConfig*and/or B) set(s) of inference related parameters
	+ FFS on whether/what other information along with the applicability is needed
	+ If A)is configured in Step 3,
		- Applicable aperiodic CSI Report and semi-persistent CSI report can be activated/triggered by NW after the applicability reported.
		- **Applicable periodic CSI Report is considered as activated only if the applicability of the corresponding *CSI-ReportConfig*is reported in *RRCReconfigurationComplete.***

<omit unrelated text>ConclusionFor the *CSI-ReportConfig* for inference configuration provided in Step 5,* aperiodic CSI Report and semi-persistent CSI report can be activated/triggered by NW after *RRCReconfigurationComplete*.
* **periodic CSI Report is considered as activated after *RRCReconfigurationComplete*.**
* **Note: UE is not expected to be configured with a *CSI-ReportConfig* for inference configuration for a non-applicable set of inference parameters or a non-applicable *CSI-ReportConfig***

Any specification impact is a separate discussion  |

In more details, RAN2 identified the following two options on when RRC layer submits periodic CSI inference configuration (i.e. *CSI-ReportConfig*) to lower layer (i.e. PHY layer):

* Option 1: Upon reception of RRC Reconfiguration message, UE’s RRC layer immediately submits inference configuration of periodic CSI to lower layer, regardless of whether the configuration is applicable/inapplicable.
* Option 2: Upon reception of RRC Reconfiguration message, UE’s RRC layer submits inference configuration of periodic CSI to lower layer only if it is reported as applicable in *RRCReconfigurationComplete*.

From RAN2 point of view, the consequence of the two options can be described as follows:

* For Option 1, companies in RAN2 think there may be two different potential approaches in PHY layer how to handle non-applicable periodic *CSI-ReportConfig*. It is for RAN1 information.
	+ Approach 1: The UE’s PHY layer will immediately perform inference of periodic CSI, even if the inference configuration is non-applicable. Consequently, the UE may report invalid periodic CSI before the corresponding *CSI-ReportConfig* becomes applicable.
	+ Approach 2: The UE’s PHY layer will ignore the inference configuration of periodic CSI if it is non-applicable. Consequently, the UE will not report periodic CSI before the corresponding *CSI-ReportConfig* becomes applicable.
* For Option 2, as RRC layer holds on submitting the inference configuration to lower layer until reporting as applicable, the UE’s PHY layer will perform inference of periodic CSI and report only after sending *RRCReconfigurationComplete* with the corresponding *CSI-ReportConfig* setting to “applicable”.

From RAN2 point of view, this issue can be solved by option 2 but needs to check with RAN1. RAN2 also discussed option 1 and couldn’t conclude as its consequence is outside scope of RAN2. RAN2 would like to ask RAN1 which option (i.e. Option 1 or Option 2) is best.

2 Actions

**To RAN1**

**ACTION:** RAN2 respectfully requests RAN1 to reply which option (i.e. Option 1 or Option 2) is best.

3 Dates of next TSG RAN WG2 meetings

TSG-RAN WG2 Meeting #131-bis October 13 to 17, 2025 Prague, CZ

TSG-RAN WG2 Meeting #132 November 17 to 21, 2025 Dallas, US