3GPP TSG RAN WG2 Meeting #114 R2-210xxxx

**Electronic meeting, 19th-27th May 2021**

**Title:** [draft] LS to RAN1 on on-demand PRS

**Reply to:**

**Release:** Rel-17

**Work Item:** NR\_pos\_enh-Core

**Source:** Intel (to be: RAN WG2)

**To:** RAN WG1

**Cc:**

**Contact Person:**

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

**Attachments:** None

**1. Overall Description:**

During RAN2#114-e meeting, RAN2 discussed the support of on-demand PRS and made the following set of agreements:

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| --- |
| - The network can signal predefined PRS configurations to the UE and the UE can select one to request. FFS if the UE can request a configuration with different parameters and exactly which parameters are flexible.- Define a new LPP assistance data IE which can contain a set of possible on-demand DL-PRS configurations, where each on-demand DL-PRS configuration has an associated identifier. - This new LPP assistance data IE can be included in an LPP Provide Assistance Data message and/or a new posSIB.- The procedure(s) for on-demand DL-PRS should support at least the following functionality (up to RAN3 what is in NRPPa vs. OAM, etc.):* Providing the requested on-demand DL-PRS configuration information from an LMF to the gNB (e.g., explicit parameter or identifier of a predefined DL-PRS configuration), and confirmation of the request by the gNB
* Provision of (possible/allowed) on-demand DL-PRS configurations that the gNB can support from a gNB to an LMF
* TRP capability transfer (e.g., whether the RAN node supports the reconfiguration of DL-PRS, etc.)
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In addition, RAN2 identified at least the following set of parameters associated with DL-PRS configuration that may be supported for on-demand DL-PRS request:

- start time and duration for the requested DL-PRS configuration

- request for turning DL-PRS on/off

- requested TRP-IDs/number of TRPs for DL-PRS

- request for turning DL-PRS beams on/off

- requested DL-PRS resource/resource-set, periodicity, repetition, muting, Tx power indication, number of beams

RAN2 expects that RAN1 shall define and specify parameters for on-demand DL-PRS request as needed.

RAN1 is requested to define and provide the list of parameters for on-demand DL-PRS and inform RAN2 accordingly.

**2. Actions:**

**To RAN1 group.**

**ACTION:** RAN2 respectfully requests RAN1 to provide the list of parameters for on-demand PRS request, taking the above into account.

**3. Date of Next TSG-RAN WG2 Meetings:**

TSG-RAN WG2 Meeting #115-e 16 – 27 August 2021 Electronic Meeting

TSG-RAN WG2 Meeting #116-e 01 – 12 November 2021 Electronic Meeting