**3GPP TSG RAN WG1 #114-e R2-21xxxxx**

**e-Meeting, May 19th – 27th, 2021**

**Title:** LS on On-demand PRS

**Response to:**

**Release:** Rel-17

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

**Source:** RAN2

**To:** RAN3

**Cc:** RAN1

**Contact Person:**

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**Attachments:**

**1. Overall Description:**

During RAN2 #113bis-e and #114-e, the following agreements regarding On-Demand PRS in Rel-17 were reached

**RAN2 #113bis-e**

Agreements:

UE-initiated on-demand PRS request is enabled by enhancing LPP RequestAssistanceData. FFS how much control the network has over the UE request.

The UE-initiated mechanism is enabled by the UE request triggering a request from the LMF, and the actual PRS changes are requested by the LMF irrespective of whether the procedure is UE- or LMF-initiated.

Put the stage 2 description for UE-initiated and LMF-initiated PRS request under the same framework.

**RAN2 #114-e**

Agreement:

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.)

**2. Actions:**

**To RAN3**

**ACTION:** RAN2 respectfully requests RAN3 to take the above RAN2 agreements into account.

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

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

TSG-RAN WG2 Meeting #116-e 1 – 12 November 2021 E-Meeting