3GPP TSG-RAN WG3 Meeting #123bis R3-242165

Changsha, China, 15 – 19 April 2024

**Agenda item: 12.3**

**Source: Nokia, TMO US, AT&T, Verizon Wireless, British Telecom, NTT Docomo, KDDI**

**Title: [TP to 38.799] – Option 2**

**WID/SID: FS\_WAB\_5GFemto\_NR - Release 19**

**Document for: Discussion and Decision**

# 1 Introduction

**A RAN architecture solution has been proposed in tdoc [2] to be captured in the TR 38.799.**

**The corresponding TP for TR 38.799 is available below.**

# 2 References

1. RP-234041, *Study Item on Additional topological enhancements for NR, NTT Docomo, AT&T*
2. R3-241831, [TP for TR 38.799] Solution for 5G Femto Architecture

# 3 TP for TR 38.799

6.2 Architecture

Figure 6.2-1 shows a logical architecture for the NR Femto that has a set of NG interfaces to connect the NR Femto to the 5GC.

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**Figure 6.2-1: NG-RAN Logical Architecture for NR Femto**

The NG-RAN architecture may deploy an NR Femto Gateway (NR Femto GW) to allow the NG interface between the NR Femto and the 5GC to support a large number of NR Femtos in a scalable manner. The NR Femto GW serves as a concentrator for the C-Plane, specifically the NG-C interface.

The NG interface is defined as the interface:

- Between the NR Femto GW and the 5GC;

- Between the NR Femto and the NR Femto GW;

- Between the NR Femto and the 5GC;

- Between the gNB and the 5GC.

The NR Femto GW appears to the AMF as a gNB. The NR Femto GW appears to the NR Femto as an AMF. The NG interface between the NR Femto and the 5GC is the same regardless of whether the NR Femto is connected to the 5GC via an NR Femto GW or not.