**3GPP TSG-RAN WG3 #119bis-e R3-2xxxxx**

**Online 17th – 26th Apr 2023**

**Title: [draft] LS on PCI Optimisation Function when DU and CU connect to different OAMs in mobile IAB**

**Response to:**

**Release: Rel-18**

**Work Item: NR\_mobile\_IAB**

**Source: ZTE [to be: RAN3]**

**To: SA5**

**Cc:**

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

**Attachments:**

# 1 Overall description

TS38.401 specifies PCI optimisation function for both non-split gNB case and split gNB architecture as below. RAN3 discussed the PCI reconfiguration using PCI optimisation function in mobile IAB scenario when IAB donor CU and mobile IAB-DU connect to different OAMs but haven’t reached consensus on it. Most companies believe current PCI Optimisation Function is applicable for the scenario when gNB-CU and gNB-DU connect to the different OAMs and the scenario when IAB donor CU and mobile IAB-DU connect to different OAMs. But some company think current PCI Optimisation Function is not applicable for these two scenarios. RAN3 kindly asks SA5 to provide feedback on whether current PCI Optimisation Function is applicable for the two scenarios where gNB-CU(or IAB donor CU) and gNB-DU(or mobile IAB-DU) connect to the different OAMs.

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| 7.8 PCI Optimisation Function  The PCI Optimization Function in non-split gNB case is specified in TS 38.300 [2].  In split gNB architecture, the OAM configures a PCI for each NR cell to the gNB-DU.  For centralized PCI assignment in split gNB architecture, the gNB-CU detects PCI conflict of NR cells and reports the NR cells suffering PCI conflict to OAM directly. The OAM is in charge of reassigning a new PCI for the NR cell subject to PCI conflict.  For distributed PCI assignment in split gNB architecture, the OAM assigns a list of PCIs for each NR cell and sends the configured PCI list to the gNB-CU. If the gNB-CU detects PCI conflict, the gNB-CU may select a new PCI value from the preconfigured PCI list for the NR cell and send it to the gNB-DU by either F1 Setup procedure or gNB-CU configuration update procedure. |

# 2 Actions

RAN3 kindly asks SA5 to provide feedback on the following two questions:

Q1: Is current PCI Optimisation Function applicable for the scenario when gNB-CU and gNB-DU connect to the different OAMs.

Q2:For mobile IAB node, is the current PCI Optimisation Function applicable for the scenario when IAB donor CU and mobile IAB-DU connect to different OAMs.

# 3. Date of Next RAN3 Meetings:

RAN3#120 22 th – 26 th May, 2023 Incheon, Korea

RAN3#121 21th – 25th August, 2023 Toulouse, France