**3GPP TSG-RAN WG4 Meeting #95-e DRAFT R4-200xxxx**

Online, 25 May - 5 Jun 2020

**Source:** Huawei

**Title:** WF on IAB-MT class descriptions

**Agenda Item:** 6.5.1.2

**Document for:** Approval

# Background

In the last meeting a WF on IAB system parameters [R4-2005482] was approved along with the following options for IAB class description

Option 1: use target deployment scenario and below parameters for IAB-MT class definition and description:

- Option 1a: Minimum distance/ Typical distance

- Option 1b: Minimum distance/Typical distance combined with other parameters including Planed/Unplanned and Backhaul link condition

Option 2: use target deployment scenario for IAB class definition and description

- Wide area IAB-MT target for Macro and Micro cell deployment

- Local area IAB-MT target for Micro and Pico Cell deployment

Note it was agreed during the RAN4’#94e-bis that this issue would be deprioritized until the RF requirements for the BS classes were finalised.

During RAN4#95e we had 2 contributions on the issue:

 R4-2007399 – which proposed descriptions using minimum distance (option 1a)

R4-2007903 – which proposed descriptions based on the deployment (option 2)

The summary for the 1st round discussion captured the following:

*Opinion is still split on the best way forward, although there seems a slight preference for a non-quantative solution based on option 2 (4 companies: Nokia, CATT, Huawei, Samsung). There are 3 companies supporting a quantative, distance based definition approach with 2 favoring min distance (Qualcomm, ZTE) and 1 for typical distance (Ericsson). There is no consensus on what the distance should be*

The intention of the WF is to try to further clarify and narrow the options

# Way Forward

The IAB-MT class definition options are:

**Option 1:** use target deployment scenario and below parameters for IAB-MT class definition and description:

- **option 1a:** Minimum distance

- **option 1b:** Typical distance

**Option 2:** use target deployment scenario for IAB class definition and description from the following options:

 - **option 2a:** (minimal information)

*Wide Area IAB-MT nodes are characterised by requirements derived from Macro Cell and Micro Cell scenarios.*

*Local Area IAB-MT nodes are characterised by requirements derived from Pico Cell and Micro Cell scenarios.*

- **option 2b:** (additional link based information)

*Wide Area IAB-MT nodes are characterised by requirements derived from Macro Cell and Micro Cell scenarios where the path loss is higher but stable.*

*Local Area IAB-MT nodes are characterised by requirements derived from Pico Cell and Micro Cell scenarios where the path loss is lower but more variable*

Companies are encouraged to provide further views on the IAB-MT description, particularly what distances should be used for option 1 if this is agreed as the agreeable approach.

# References

[1] R4-2005482 WF on IAB system parameters Huawei

[2] R4-2007399 Discussion on IAB MT class ZTE

[3] R4-2007903 IAB-MT Class descriptions Huawei