3GPP TSG-RAN WG2 #111-e draft\_R2-200xxxx

Online, 17 – 28 August 2020

Agenda Item: 9.1.3

Source: Ericsson

Title: [AT111-e][309][NBIOT/eMTC R17] Carrier selection (Ericsson)

Document for: Discussion, Decision

# 1 Introduction

This document is to kick off the following email discussion:

* [AT111-e][309][NBIOT/eMTC R17] Carrier selection (Ericsson)

 Status:

 Scope: To clarify the scope of this objective in terms of what could be enhanced.

 Intended outcome: Report in R2-2008311

 Deadline: Wednesday 26 1100 UTC.

# 2 Submitted Documents

R2-2006832 NB-IoT carrier selection and configuration based on coverage level Ericsson discussion Rel-17

R2-2006835 Enhancements on multi carrier configuration and selection ZTE Corporation, Sanechips discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

R2-2007343 Use cases and scenarios of carrier specific configuration Huawei, HiSilicon discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

R2-2007354 Analysis on carrier selection options Nokia, Nokia Shanghai Bell discussion Rel-17

R2-2007570 Support for NB-IoT carrier selection based on the coverage level Qualcomm Incorporated discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

R2-2007957 Carrier selection enhancement Shanghai Chen Si Electronics discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

# 3 Discussion

## 3.1 Scope of WID

Based upon submitted documents, the enhancements desired can be categorized in below three different areas

* Paging carrier selection Improvements
* UL NPRACH Carrier Selection Improvements
* Service base carrier selection Improvements

Companies are requested to provide their comments and percentage allocation; so it may help to prioritize or downselect. Where would companies like to focus and prioritize?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Company | Paging | NPRACH | Service Based | Any Other |
| Ericsson | Yes. 70% We are fine to enhance Paging carrier selection. However, the solution should be reasonable and implementable; i.e not big impact on the NW and UE power consumption. | Yes. 30% We are fine to discuss any enhancements that companies think could be desired. | No. We think Paging and NPRACH carrier selection should be sufficient and may address service-based selection. |  |
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## 3.2 Scope of Paging Improvements

Further for paging carrier selection the below parameters have been proposed to study/discuss

* CE Level Rmax (Latency)
* Carrier Specific DRX
* WUS
* GWUS

Companies are requested to provide their prioritization; in which particlualr parameter they would like to focus.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Company | CE Level Rmax | DRX | WUS | GWUS |
| Ericsson | Yes. 100%. We would like to focus paging improvements based upon CE level.  | No. Having too many parameters for paging carrier selection improvement may risk or complicate so we would like to have only one focus area. | No. Having too many parameters for paging carrier selection improvement may risk or complicate so we would like to have only one focus area | No. Having too many parameters for paging carrier selection improvement may risk or complicate so we would like to have only one focus area |
|  |  |  |  |  |
|  |  |  |  |  |

## 3.3 Other

Any other rcomments

Companies are requested to provide their view:

|  |  |
| --- | --- |
| Company | Comments |
|  |  |
|  |  |

# 4 Conclusion

Based on the discussion in the previous sections we propose the following proposal as:

# 5 References

1. R2-201306, Additional enhancements for NB-IoT and LTE-MTC, RAN#88e, Reno, June 2020.