3GPP TSG-RAN WG3 Meeting #124 R3-243868

**Fukuoka, Japan, 20th – 24th May, 2024**

**Agenda Item: 17.3**

**Source: Ericsson (Moderator)**

**Title: Summary of offline discussions: Support on-demand SIB1 for UEs**

**Document for: Discussion and approval**

# Introduction

**CB: # R19ES**

* **Focus on RAN3 impact on case2**

(moderator - E///)

Summary of offline disc [R3-243868](file:///C%3A%5C3GPP%5CRAN3%5C2024%5CRAN3%23124%5CWork%20On%20Site%5CInbox%5CR3-243868.zip)

# 2 For the Chairman’s Notes

**T.B.D.**

# 3 Discussion

This offline is meant to capture the issues that we would like to discuss/focus at the next meeting.

As discussed at the online session, here we only take Case 2 into account.

Companies are welcome to provide input on the issues to be discussed and your view, comment.

We will not produce any agreement/working assumption, only to clarify so that we could better understand each other.

## 3.1 Related to WUS Configuration

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| **Company** | **Comment** |
| Ericsson | We think the following issues should be discussed:**Issue 1**: The WUS configuration signalling to support NES cell’s requesting starting (or stopping) WUS configuration provision in certain Cell As and receiving WUS configuration provision status updates.**View 1**: WUD configuration is sent from the NES cell to Cell A via XnAP. We prefer to introduce a new procedure:, e.g.* NES cell requests Cell A to broadcast the WUS configuration;
* Cell A may accept or reject the above task
* NES cell can request Cell A to stop the above task, when NES cell for a long time will stay in legacy SIB mode.
* Cell A can inform NES cell that it does not want to perform the WUS broadcast task any more

**Issue 2**: The WUS configuration signalling between NES gNB-DU to NES gNB-CU**View 2:** Over F1AP, we think the existing procedure Configuration Update procedure can be used so that:* The gNB-CU can indicate to gNB-DU that cells are allowed to use on-demand SIB operation.
* We think the gNB-DU serving the NES cell should decide its WUS configuration;
* The gNB-DU to send the WUS configuration to its gNB-CU, when gNB-DU decides to operate the cell in on-demand SIB1 transmission mode
* The gNB-DU can indicate to its gNB-CU that it has stopped operating a certain cell in on-demand SIB1 transmission mode.
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| Nokia | Issue 4: Which network node entity decides the content of the WUS configuration?View: The NES gNB-DU decides the content of the WUS configuration. |
| Huawei | Basically, we think we should split the discussion as follows. * **The UL WUS configuration signalling provision**.
	+ We have made agreements for Xn at the previous meeting. Then we can agree F1 agreements at this meeting if possible (don’t understand why these sentences are not green)
* **The SIB1 broadcast status indication or On-demand SIB1 operation activation/deactivation indication**.
	+ The naming can be FFS. This can be used each time the NES cell decides to stop SIB1 broadcast, or begin SIB1 broadcast (e.g., upon UE UL WUS request), the NES cell can indicate to the Cell A to begin or stop the WUS configuration broadcast/dedicated RRC signalling to its UEs.

For issue 1 above from Ericsson, this is related to the “starting” or “stopping” of the WUS configuration broadcast from the Cell A, this is more like the discussion about the **SIB1 broadcast status indication or On-demand SIB1 operation activation/deactivation indication,** in our understanding. For issue 2, we agree Ericsson procedures. Here also mentions that the DU should notify the CU about the stop the on-demand SIB1 transmission, this is also more like the discussion of the SIB1 broadcast status indication.  |
| NEC | We prefer to reword Issue 1 as below:**Issue 1**: UL WUS configuration provision and update from NES cell to Cell A**View 1**: From the NES cell to Cell A via XnAP. We prefer to reuse NG-RAN node Configuration Update procedure. |
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Moderator summary:

## 3.2 Related to on-demand SIB1 activation/deactivation

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| **Company** | **Comment** |
| Ericsson | **Issue 3**: Which network node entity decides operating a cell in periodic or on-demand SIB1 transmission mode, activate/deactivation?**View 3**: NES gNB-DU determines. Before operating a cell (NES Cell) into on-demand SIB1 transmission mode, it must be ensured the WUS configuration of the cell (NES Cell) can be acquired by UEs in the coverage area of the cell (e.g., via another cell (Cell A)). |
| Nokia | We propose to capture issue 3 as follows: Which network node entity decides operating a cell in periodic or on-demand SIB1 transmission mode?View: NES gNB-CU takes this decision. |
| Huawei | We propose first discuss Xn, i.e., * Signal the SIB1 broadcast status indication or On-demand SIB1 operation activation/deactivation indication from the NES cell to the Cell A over Xn.

Then focus on the F1: * The NES-DU decides the SIB1 broadcast status, and signal to the NES-CU. Those NES cells which enables on-demand SIB1 should be decided by the NES CU.
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| NEC | **Issue 3:** On-demand transmission activation/deactivation in split architecture**View 3:** gNB-CU decides and informs gNB-DU. |
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Moderator summary:

## 3.3 Others

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| **Company** | **Comment** |
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Moderator summary:

# 4 References

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| [R3-243204](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_124%5CDocs%5CR3-243204.zip) | Aspects of on-demand SIB1 for NES enhancements (Qualcomm Inc.) | discussion |
| [R3-243126](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_124%5CDocs%5CR3-243126.zip) | Discussion on RAN3 impacts for On-Demand SIB1 Support (Nokia) | discussion |
| [R3-243178](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_124%5CDocs%5CR3-243178.zip) | (TP for TS 38.473) Discussion on on-demand SIB1 for UEs (Huawei) | other |
| [R3-243250](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_124%5CDocs%5CR3-243250.zip) | On-demand SIB1 transmission of a NES cell (NEC) | discussion |
| [R3-243251](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_124%5CDocs%5CR3-243251.zip) | [draft] LS on one case of on-demand SIB1 transmission (NEC) | LS out To: RAN1, RAN2 CC:  |
| [R3-243275](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_124%5CDocs%5CR3-243275.zip) | Discussion on on-demand SIB1 (Samsung) | discussion |
| [R3-243405](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_124%5CDocs%5CR3-243405.zip) | Discussion on On-demand SIB1 for Idle/Inactive UE (Lenovo) | discussion |
| [R3-243537](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_124%5CDocs%5CR3-243537.zip) | On-demand SIB1 transmission (Ericsson) | discussion |
| [R3-243575](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_124%5CDocs%5CR3-243575.zip) | Discussion on on-demand SIB1 for idle/inactive mode UEs (ZTE) | discussion |
| [R3-243726](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_124%5CDocs%5CR3-243726.zip) | (TP for TS 38.473) Support On-Demand SIB1 for UEs (CMCC) | other |
| [R3-243333](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_124%5CDocs%5CR3-243333.zip) | Discussion on on-demand SIB1 for idle UE (CATT) | Discussion |