**3GPP TSG-RAN WG4 Meeting # 111 R4-240xxxx**

**Fukuoka, Japan, 20 – 24 May, 2024**

**Agenda item:** 7.12.3

**Source:** Moderator (Huawei, HiSilicon)

**Title:** Topic summary for [111][214] NR\_pos\_enh2\_part3

**Document for:** Information

# Introduction

This document provides summary for Tdocs submitted to the following AI

*7.12.1.3 LPHAP use case [NR\_pos\_enh2-Core]*

*7.12.2.3 LPHAP use case [NR\_pos\_enh2-Perf]*

All the planned draftCRs for May meeting (Phase I) for LPHAP are submitted

Recommended issues for online discussion:

Issue 1-2-1: eDRX related configuration

Issue 1-2-2: whether to configure PRS measurement reporting periodicity

Issue 1-2-3: configurations for cell reselection TCs

# Topic #1: Open issues

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| [**R4-2407972**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2407972.zip) | Qualcomm Incorporated | Core part CR |
| [**R4-2409265**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2409265.zip) | Huawei, HiSilicon | Core part CR |
| [**R4-2409582**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2409582.zip) | Ericsson | Core part CR |
| [**R4-2407881**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2407881.zip) | OPPO | Perf part CR: TC 9-5 and 9-6 |
| [**R4-2407975**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2407975.zip) | Qualcomm Incorporated | Perf part CR: TC 9-11 and 9-12 |
| [**R4-2408296**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2408296.zip) | vivo | Perf part CR: TC 9-3 and 9-4 |
| [**R4-2409273**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2409273.zip) | Huawei, HiSilicon | **Proposal 1: For TCs involving eDRX, use the following setup**   * **CN eDRX cycle = RAN eDRX cycle = 64 HFs** * **CN PTW length = RAN PTW length = 10.24s** * **DRX cycle is same as in existing TCs** * **PRS measurement reporting periodicity not configured**   **Proposal 2: For RRM (cell reselection) TCs,**   * **UE is configured with 5.12s SRS periodicity in Cell 1** * **UE is not configured with PRS measurement** * **simplify existing cell reselection TCs by using only two time periods** |
| [**R4-2409274**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2409274.zip) | Huawei, HiSilicon | Perf part CR: TC 9-13, 9-14, 9-17 and 9-19 |
| [**R4-2409588**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2409588.zip) | Ericsson | Perf part CR: TC 9-1 and 9-2 |

## Open issues summary

### Sub-topic 1-1: Core requirements maintenance

No discussion paper submitted, thus no open issue to be discussed.

Maintenance of core requirements can be discussed directly based on the 3 draftCRs as listed in Topic #2.

### Sub-topic 1-2: Performance requirements

#### Issue 1-2-1: eDRX related configuration

* Proposals
  + Option 1 (HW):
    - eDRX cycle for both RAN and CN: 655.36s (640 HFs)
    - PTW length: 10.24s
    - DRX cycle: same as in existing TCs
  + Option 2 (OPPO, QC, vivo):
    - eDRX cycle for both RAN and CN: 20.48s
    - PTW length: 1.28s
    - DRX cycle: same as in existing TCs
  + Option 3 (E///):
    - eDRX cycle: 40.96s
    - PTW length: N/A
    - DRX cycle: N/A
* Recommended WF
  + Agree to use same eDRX cycle and PTW length for CN eDRX and RAN eDRX.
  + Agree to use same DRX cycle as in respective R17 TCs.
  + Discuss the options for exact values for eDRX cycle and PTW length.

#### Issue 1-2-2: whether to configure PRS measurement reporting periodicity

* Proposals
  + Option 1 (HW):
    - No
  + Option 2 (E///):
    - Yes, configured as 20s (smaller than eDRX cycle)
* Recommended WF
  + Discuss the options.

#### Issue 1-2-3: configurations for cell reselection TCs

* Proposals
  + Option 1 (HW)
    - UE is configured with 5.12s SRS periodicity in Cell 1
    - UE is not configured with PRS measurement
    - simplify existing cell reselection TCs by using only two time periods
* Recommended WF
  + Discuss the options.

# Topic #2: draftCRs

The following draftCRs are submitted for core part maintenance.

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| --- | --- | --- |
| [**R4-2407972**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2407972.zip) | Draft CR – Corrections to PRS measurement period with eDRX in RRC\_IDLE state | Qualcomm Incorporated |
| [**R4-2409265**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2409265.zip) | draftCR on RRM requirements for LPHAP | Huawei, HiSilicon |
| [**R4-2409582**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2409582.zip) | DraftCR to 38.133 on Core requirements for LPHAP | Ericsson |

The following draftCRs are submitted for perf part maintenance.

|  |  |  |
| --- | --- | --- |
| [**R4-2407881**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2407881.zip) | [TC 9-5 and 9-6] Draft CR on PRS-RSRP delay TC for case 2 in FR1 | OPPO |
| [**R4-2407975**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2407975.zip) | Draft CR – Test cases for UE Rx-Tx measurement delay with eDRX > 10.24s in RRC\_INACTIVE, Sets 9-11, 9-12 | Qualcomm Incorporated |
| [**R4-2408296**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2408296.zip) | Draft CR on measurement delay test cases for LPHAP - Sets 9-3 9-4 | vivo |
| [**R4-2409274**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2409274.zip) | draftCR on performance requirements for LPHAP | Huawei, HiSilicon |
| [**R4-2409588**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2409588.zip) | DraftCR to 38.133 to introduce test cases for LPHAP in RRC\_INACTIVE state in FR1 | Ericsson |