**3GPP T****SG-RAN WG4 Meeting #112 R4-2414027**

**Maastricht, Netherlands, Aug 19 – Aug 23, 2024**

**Source: Nokia**

**Title: Workplan for Rel-19 XR phase 3**

**Agenda item: 8.24.1**

**Document for: Approval**

1. Introduction

In new WI of NR XR Phase 3 [1] has been approved. The scope of this WI is:

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| 4.1 Objective of SI or Core part WI or Testing part WI The Rel-19 XR Phase 3 objectives are as follows:  - Study and if justified, specify aspects related to multi-modality (intra-UE) (with coordination with SA2/SA4 as needed by LS request). Aim to facilitate efficient and effective support for XR application with Multiple QoS flows with multi-modal inter-dependencies, meeting multi-modal QoS requirements, e.g. synchronization and/or coordination. Efficiency enhancements are expected to be visible in terms of capacity or power consumption. [RAN2].  NOTE: Check in RAN#105 (check also other WG involvement if needed).  - Specify enhancements to enable transmission/reception in gaps/restrictions that are caused by RRM measurements (from inter-frequency RRM measurement gaps, or intra-frequency measurements, or other scheduling restrictions etc). [RAN1, RAN2, RAN4]  - Specify the corresponding measurement gap and scheduling restriction to enable the identified enhancements with RRM performance impact taken into consideration, work being triggered by LS. [RAN4]  - Specify Enhancements for Scheduling, as follows:  - For the UL, Study and if justified, Specify enhancements using delay/deadline information, for support of UL scheduling to enable high XR capacity while meeting delay requirements/avoiding too late PDUs. [RAN2].  NOTE: LCP implementation complexity need to be taken into account when evaluating solutions.  NOTE: Check in RAN#105  - Specify the following user plane enhancements [RAN2]  - RLC re-transmission related enhancements for operation of RLC Acknowledged Mode (AM) with small packet delay budget.  - Specify Core requirements related to the above objectives as necessary [RAN4]   * Extend Release 18 standalone mechanism to support NR-NR dual connectivity as follows [RAN3]   + PDU set based handling   + ECN marking   + Burst Arrival Time reporting, if needed   + PSI Discard coordination, if needed   + Note: No RAN2 impact from above items   NOTE: Whether / to what extent network exposure / RAN awareness / e.g. RAN involved rate control, possibly additional info for DL scheduling, parallel with SA2 work, shall be covered in this WI is TBD. |

The TU allocation for NR\_XR\_ph3 includes time units starting in RAN4#112 up to RAN4#116 for RRM core part as:

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | 1 TU = ~2h; RD: RRM/demodulation |  |  |  | R4RD | R4RD | R4RD | R4RD | R4RD | R4RD | R4RD |
| **leading WG** | **RAT** | **WI code** | **Title** | **latest WID/SID** | **rapporteur** | **target** | 112 | 112bis | 113 | 114 | 114bis | 115 | 116 |
| R2 | NR | NR\_XR\_Ph3-Core | Core part: XR for NR Phase 3 | RP‑240791 | Nokia, Qualcomm | Sep.25 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,5 | 0,25 |
| R4 | NR | NR\_XR\_Ph3-Perf | Perf. part:XR for NR Phase 3 | RP‑240791 | Nokia, Qualcomm | Mar.26 |  |  |  |  |  |  | 0,25 |

1. Workplan

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| **RAN4 meeting** | **Tasks** |
| RAN4 #112 - August 2024 | * Approval of workplan * Initial discussion on scenarios for measurement skipping based on RAN1 conclusions. |
| RAN4 #112bis - October2024 | * Conclusions on scenarios for measurement skipping based on RAN1 conclusions. * Discussion on the need for UE assistance information regarding measurements occasions needed. |
| RAN4 #113 - November 2024 | * Discussion on RRM requirements with measurement skipping. * Discussion on the necessary UE assistance information. |
| RAN4 #114 - February 2025 | * Conclusion on RRM requirements with measurement skipping. * Discussion on the need for UE assistance information regarding measurement skipping. * Agreement of CR work split. |
| RAN4 #114bis - April 2025 | * Conclusion on the necessary UE assistance information.. * First Draft CRs for RRM core requirements.   + Draft CRs for 38.133 expected. * First big Draft CR. |
| RAN4 #115 - May 2025 | * Discussion on remaining open issues for RRM core |
| RAN4 #116 - August 2025 | * Discussion on remaining open issues for RRM core . * Revision of CRs for RRM core requirements.      * Planning of RRM performance.   + Initial discussion on RRM test cases. |

References

1. RP-240791, Revised WID: XR (eXtended Reality) for NR Phase 3, RAN #103