**3GPP TSG-RAN WG4 Meeting # 111 R4-2408021**

**Fukuoka, Japan, May 20 – 24, 2024**

**Agenda item:** 7.22.3

**Source:** Moderator (LG Electronics)

**Title:** Topic summary for [111][224] NR\_SL\_relay\_enh

**Document for:** Information

# Introduction

*This document is the topic summary for [111][224] NR\_SL\_relay\_enh. In the last RAN4#110bis meeting, all the remaining issues on RRM performance requirement parts were closed. According to the discussion two CRs are submitted in this RAN4#111 meeting as follow:*

* **CR#1:** Applicability of SD-RSRP and SL-RSRP accuracy requirements in multipath scenario.
* **CR#2:** Test case for delay of selection/reselection of relay UE by remote UE in U2U relay scenario

# Topic #1: RRM performance requirements

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2409649 | Nokia, LGE | ***Title:*** for delay of selection/reselection of relay UE by remote UE in U2U relay scenario***Reason for change:*** To introduce test case for delay of selection/reselection of relay UE by remote UE in U2U relay scenario***Summary of change:*** Add test case for delay of selection/reselection of relay UE by remote UE in U2U relay scenario***Consequences if not approved:*** No test case for delay of selection/reselection of relay UE by remote UE in U2U relay scenario in 38.133 |
| R4-2409672 | Ericsson | ***Title:*** Applicability of SD-RSRP and SL-RSRP accuracy requirements in multipath scenario***Reason for change:*** To define applicable conditions for a remote sidelink UE in multipath relay scenario to meet the SD-RSRP and SL-RSRP accuracies.***Summary of change:*** This CR makes additional changes to R4-2403336 which was endorsed at RAN4#110. The new changes are highlgithed. Following was agreed in R4-2406298, and this CR captures those changes as per worksplit:

|  |
| --- |
| * Agreement:
	+ Existing accuracies of SD-RSRP and SL-RSRP in clause 10.4.5 shall also apply for the remote UE in the multipath scenario provided that the remote UE:
		- is synchronised to the sidelink relay UE that is measured and
		- is in-coverage on the frequency used for sidelink if both the direct path and the SL on the indirect path are on the same frequency or
		- is out of coverage on the frequency used for sidelink if the direct path and the SL on the indirect path are on different frequencies.
 |

*Consequences if not approved:* The SD-RSRP and SL-RSRP accuracy performance of the remote UE in multipath relay operation cannot be guaranteed. |

## Open issues summary

### Sub-topic 1-1 CR works

*This sub-topic is for CR works:*

**Issue 1-1-1: Draft CR for test case for delay of selection/reselection of relay UE by remote UE in U2U relay scenario**

* ***Reason for change:*** To introduce test case for delay of selection/reselection of relay UE by remote UE in U2U relay scenario
* ***Summary of change:*** Add test case for delay of selection/reselection of relay UE by remote UE in U2U relay scenario
* ***Consequences if not approved:*** No test case for delay of selection/reselection of relay UE by remote UE in U2U relay scenario in 38.133
* Recommended WF
	+ Moderator’s view: Can be endorsed.

**Issue 1-1-2: Applicability of SD-RSRP and SL-RSRP accuracy requirements in multipath scenario**

* ***Reason for change:*** To define applicable conditions for a remote sidelink UE in multipath relay scenario to meet the SD-RSRP and SL-RSRP accuracies
* ***Summary of change:*** This CR makes additional changes to R4-2403336 which was endorsed at RAN4#110. The new changes are highlgithed.

Following was agreed in R4-2406298, and this CR captures those changes as per worksplit:

|  |
| --- |
| * Agreement:
	+ Existing accuracies of SD-RSRP and SL-RSRP in clause 10.4.5 shall also apply for the remote UE in the multipath scenario provided that the remote UE:
		- is synchronised to the sidelink relay UE that is measured and
		- is in-coverage on the frequency used for sidelink if both the direct path and the SL on the indirect path are on the same frequency or
		- is out of coverage on the frequency used for sidelink if the direct path and the SL on the indirect path are on different frequencies.
 |

* ***Consequences if not approved:*** The SD-RSRP and SL-RSRP accuracy performance of the remote UE in multipath relay operation cannot be guaranteed.
* Recommended WF
	+ Moderator’s view: Can be endorsed.