3GPP TSG-RAN WG2 #117-e R2-220xxxx

Electronic meeting, 21st February – 3rd March 2022

Agenda Item: 8.7.1

Source: Ericsson

Title: [AT117-e][611][Relay] Way forward on FFs in 38.304

Document for: Discussion, Decision

# 1 Introduction

The following document is to provide and collect input about a way forward in resolving the remaining open issues present in the running CR for 38.304 for SL relay. Also, this is related to the following email discussion:

 **[AT117-e][611][Relay] Relay running CR to 38.304 (Ericsson)**

      Scope: Review and update the CR in R2-2203324.

      Intended outcome: Agreeable CR

      Deadline:  Tuesday 2022-03-01 1200 UTC

# 2 Contact information

|  |  |  |
| --- | --- | --- |
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# 3 Discussion

## 3.1 FFS1: whether the U2N Remote UE paging reception when connected to a U2N Relay UE needs to be clarified.

This open issue relates to the fact that a U2N Remote UE may handle the reception of the paging message differently from that one of a normal UE. Indeed, this is the case since a remote UE receive the paging not directly from the network but via the relay UE.

Nevertheless, according to the current agreements, there is no impact on this section related to the remote UE’s actions (e.g., how the UE determines PO and monitor for the reception of a paging message). Therefore, the proposal is to remove this editor’s note for the time being and come back to this only if future agreements have an impact on this section

Proposal 1 RAN2 to remove the following editor’s note in 38.304 running CR: “*Editor’s Note: FFS whether the U2N Remote UE paging reception when connected to a U2N Relay UE needs to be clarified.*”

**Question 1:** Do companies agree with Proposal 1?

|  |  |  |
| --- | --- | --- |
| Company | Yes/No | Comments |
| OPPO | Yes |  |
| Xiaomi | Comments | We can remove the EN. But we understand remote UE doesn’t need to monitor PO to receive paging message. So, a NOTE may be helpful to clarify this. |
| Samsung | See comment | We have a similar comment as Xiaomi on a NOTE to clarify that when connected to a U2N Relay UE, Remote UE does not have to monitor PO to receive paging. |
| ZTE | Yes | The description of Remote UE’s paging processing can be found in 300 and 331. The note in 38.304 can be removed. |
| CATT | Yes |  |
| Nokia | Yes, but | OK to remove the EN, but as commented above we also think a clarification is needed that remote UE does not monitor POs. |
| Apple | Comment | Agree with Xiaomi that adding a NOTE may be helpful |
| Qualcomm | Yes | No strong view on adding the NOTE mentioned by Xiaomi. |
| Lenovo | Yes with comments | It is better to clarify that Remote UE does not monitor its PO when it has sent a request to Relay UE (including the information required to monitor its PO) and Relay UE does not sends a response to acknowledge/ complete. |
| Futurewei | Yes |  |

**Rapporteur summary:** All the companies agree that the EN can be removed by the current CR and that the fact that the remote UE does not need to monitor PO the receive paging can be clarified in a NOTE. Thus, proposal 1 can be confirmed and following proposals are formulated:

1. The following editor’s note in 38.304 running CR is removed: “*Editor’s Note: FFS whether the U2N Remote UE paging reception when connected to a U2N Relay UE needs to be clarified.*”
2. It is clarified in a NOTE that the remote UE does not need to monitor PO in order to receive the paging message.

## 3.2 FFS2: whether a new section (i.e., Section 9) should be created for NR Sidelink discovery

So far what has been agreed for sidelink discovery do not pose a huge difference in term of cell selection and reselection for the case of sidelink relay. On top of this, the relay selection and reselection action are captured in 38.331 (RRC) and thus the impact on 38.304 is limited from this point of view.

Even if creating a whole new section, it may be clean for sidelink relay, repeating most of the action that are already present in section 8.1 and 8.2 it may be an overkill and also repetitive. Therefore, the proposal is to delete the editor’s note reuse the existing sections 8.1 and 8.2 for sidelink relay.

Proposal 2 No new sub-section for sidelink relay is created in Section 8 of TS 38.304.

Proposal 3 RAN2 to remove the following editor’s note in 38.304 running CR: “*Editor’s Note: FFS whether a new section (i.e., Section 9) should be created for NR Sidelink discovery.*”

**Question 2:** Do companies agree with Proposal 2 and Proposal 3?

|  |  |  |
| --- | --- | --- |
| Company | Yes/No | Comments |
| OPPO | Yes |  |
| Xiaomi | Yes |  |
| Samsung | Yes |  |
| ZTE | Yes |  |
| CATT | Yes |  |
| Nokia | Yes |  |
| Apple | Yes |  |
| Qualcomm | Yes |  |
| Lenovo | Yes |  |
| Futurewei | Yes |  |

**Rapporteur summary:** All the companies agree with proposal 2 and proposal 3 and thus the following is formulated:

1. No new sub-section for sidelink relay is created in Section 8 of TS 38.304.
2. the following editor’s note in 38.304 running CR is removed: “*Editor’s Note: FFS whether a new section (i.e., Section 9) should be created for NR Sidelink discovery.*”

## 3.3 FFS3: whether U2N Remote UE and/or U2N Relay UE behavior should be captured in this section.

Strictly speaking, there is no real difference in how a remote UE and relay UE perform cell selection and reselection and the legacy procedure standardized in the Rel-16 still hold. Also, there was no agreement on whether a remote UE or relay UE should prioritize a cell (that e.g., support L2 or L3 or provide a certain feature for SL relay) but this is, as usually, left to the UE implementation. According to this, there is no impact foreseen on this section so far and the proposal would be to delete this Editor’s note.

Proposal 4 RAN2 to remove the following editor’s note in 38.304 running CR: “*Editor’s Note: FFS whether U2N Remote UE and/or U2N Relay UE behavior should be captured in this section.*”

**Question 3:** Do companies agree with Proposal 4?

|  |  |  |
| --- | --- | --- |
| Company | Yes/No | Comments |
| OPPO | Yes |  |
| Xiaomi | Yes |  |
| Samsung | Yes |  |
| ZTE | Yes |  |
| CATT | Yes |  |
| Nokia | Yes | Editorial comment: a subclause "8.2.0 General" could be introduced to remove hanging paragraphs before 8.2.1 |
| Apple | Yes |  |
| Qualcomm | Yes |  |
| Lenovo | Yes |  |
| Futurewei | Yes |  |

**Rapporteur summary:** All the companies agree with proposal 4 and thus the following is formulated:

1. The following editor’s note in 38.304 running CR is removed: “*Editor’s Note: FFS whether U2N Remote UE and/or U2N Relay UE behavior should be captured in this section.*”

# 4 Conclusion

According to the discussion in section 3, the following proposals are formulated:

1. The following editor’s note in 38.304 running CR is removed: “*Editor’s Note: FFS whether the U2N Remote UE paging reception when connected to a U2N Relay UE needs to be clarified.*”
2. It is clarified in a NOTE that the remote UE does not need to monitor PO in order to receive the paging message.
3. No new sub-section for sidelink relay is created in Section 8 of TS 38.304.
4. the following editor’s note in 38.304 running CR is removed: “*Editor’s Note: FFS whether a new section (i.e., Section 9) should be created for NR Sidelink discovery.*”
5. The following editor’s note in 38.304 running CR is removed: “*Editor’s Note: FFS whether U2N Remote UE and/or U2N Relay UE behavior should be captured in this section.*”

# 5 References

1. [R2-2201728](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_116bis-e/Docs/R2-2201728.zip), Running CR of 38.304 for SL relay, Ericsson, RAN2#116-bis-e, January 2022.