**3GPP TSG-RAN2 #117-e R2-220xxxx**

Electronic Meeting, 21st February– 3rd March, 2022

**Agenda item: 8.15.2**

**Source: ZTE**

**Title: Summary of [713]**

**Document for: Discussion and decision**

# Introduction

This is for the discussion of the following:

[POST117-e][713][V2X/SL] LS to SA2 (ZTE)

**Scope:** Prepare LS to SA2 (including the questions above)

**Intended outcome:** Approve LS in R2-2203693

**Deadline:** Short email discussion

Recommendation 2.2-1a [13/17]: (modified) Check with SA2 whether a same L2 ID may associate with multiple Tx profiles, and thus may associate with both DRX-based Tx profile and non-DRX based Tx profile in Rel-16. Then also check with SA2 if feasible for Rel-17 SL DRX operation, L2 id is only associated with either DRX-based TX profile(s) or non-DRX based TX profile(s).

* Agreed.
* DCR issue raised by ZTE can be discussed as part of LS preparation. If the question is valid to companies, we’re also adding that question otherwise we’re not adding it.
* Working assumption: no additional RAN2 work if SA2 confirms it’s feasible for Rel-17 SL DRX operation, L2 id is only associated with either DRX-based TX profile(s) or non-DRX based TX profile(s).

**Contact list:**

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# Discussion

According to previous agreement on TX profiles as below, TX profile is introduced for GC/BC to solve backward compatibility issue of SL DRX. But for unicast, considering that backward compatibility can be handled based on PC5-RRC UE capability signalling, so no TX profiles is introduced for unicast.

Agreements on TX profiles:

1: For GC/BC, TX profile is introduced in Rel-17 for sidelink enhancement. FFS whether a TX profile identifies a Release, or one or more sidelink feature groups.

2: RAN2 understand a service type can be mapped to a TX profile, i.e. V2X and ProSe.

3: A TX profile is indicated from upper layer to AS layer. FFS whether a TX profile needs to be provided with service type information or L2 id.

4: For GC/BC, a Rel-17 TX UE shall only assume SL DRX for the RX UEs when the associated TX profile corresponding to support of SL DRX. FFS whether a TX profile needs to be provided with service type information or L2 id.

5: For GC/BC only communication, a Rel-17 RX UE determines SL DRX is used if all service types/L2 ids of interest have an associated TX profile corresponding to support of SL DRX. A Rel-17 RX UE enables SL DRX operation for a service type/L2 id with the associated TX profile.

6: For UC, for SL transmissions after PC5-RRC connection is established, no backward compatibility issue of SL DRX is assumed, i.e. backward compatibility is handled based on PC5-RRC UE capability signalling.

7: Send an LS to SA2 to inform them of the RAN2 agreements related to TX profile.

8: The Tx profile should include at least the information of DRX support or not.

However, as we know, it is agreed that *the default SL DRX configuration for BC/GC can be used for the DCR message*. But the DCR message is sent and received before PC5-RRC UE capability signalling, so the backward compatibility of DCR can not be handled based on PC5-RRC UE capability signalling.

According to our understanding, if the RX UE cannot know whether the intended TX UE may be Rel-16 UE that does not support SL DRX, it cannot know whether default SL DRX configuration can be used when receiving the DCR message. Similarly, if the TX UE cannot know whether the intended RX UE may be Rel-16 UE that does not support SL DRX, it cannot know whether default SL DRX configuration shall be used when sending the DCR message.

In addition, according to running CR TS 38.300, there is an editor note:

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| *Whether the default configuration is used when sending the initial message in unicast needs further discussion.* |

Similarly, the Rapp think whether the default configuration is used when receiving the initial message in unicast also needs further discussion.

**Q1: Do you agree we need to discuss whether the default configuration can be used when receiving the DCR message in unicast? If the answer is no, please share your comment on why it is not needed.**

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| Company | Yes/No | comments |
| OPPO | No | This has been agreed in this RAN2 meeting as follows, we don’t need to re-discuss this:  Recommendation 2.1.1-1 [15/15]: The default SL DRX configuration for BC/GC [(including at least DRX cycle, start offset and on-duration timer)] can be used for both BC-based and UC-based DCR message. |
| Ericsson | no | As OPPO indicated |
| Apple | No | It is agreed that default DRX configuration can be used for UC DRX for a Rel-17 UE. It is not backward-compatible with Rel-16 UE. |

Considering Backward compatibility issue of DCR is similar like the back Backward compatibility issue of GC/BC, so the Rapp think a similar way of introducing TX profile can be used.

**Q2: Do you agree that a similar way of introducing TX profile can be used to determine whether default SL DRX configuration can be used when sending or receiving DCR message?**

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| Company | Yes/No | comments |
| OPPO | Yes |  |
| Ericsson | Yes |  |
| Apple | Yes |  |

**Q3：If the answer of Q2 is yes, do you agree to add following Question into LS to SA2？Please note following sentence will be directly added into the LS, you can also provide your comments on the wording of following question.**

**‘Is it feasible to indicate TX profile for DCR message and pass it to AS layer for Rel-17 UE?’**

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| Company | Yes/No | comments |
| OPPO | No | We do not think there is any doubt on that, we just need to indicate that the default DRX is applicable to UC-based DCR message, and thus S2 can apply the Tx profile for DCR, without differentiating BC and UC-based DCR. (note that the service ID is a field of both BC and UC-based DCR, so Tx profile definition can be applied without any trouble) |
| Ericsson | No | Agree with OPPO |
| Apple | No | This is feasible because TX profile is determined based on service and/or L2 address. For sure SA2 can support this just like the support of other Rel-17 SL traffic |

# Conclusion