**[104-e-NR-5G\_V2X-05]: Remaining UL/SL prioritization rule, till 1/28, with potential CRs till 2/2 – Hanbyul (LGE)**

* **PP-1-1: How SL HARQ-ACK report is piggybacked on PUSCH**
* **PP-1-3: Further consideration on prioritization rule between PUCCH for the response of MsgB and SL TX**
* **PP-1-4: Further consideration on prioritization rule between SL reception and PUCCH carrying SL HARQ-ACK report**

**PP-1-1: How SL HARQ-ACK report is piggybacked on PUSCH**

Q1: Whether or when SL HARQ-ACK report can be piggybacked on PUSCH of priority index 1 (i.e. URLLC PUSCH)

* Option 1: SL HARQ-ACK report can be piggybacked on only PUSCH of priority index 0 (No spec change).
* Option 2: when the priority value of SL PUCCH is smaller than sl-PriorityThreshold.
* Option 3: when sl-PriorityThreshold-UL-URLLC is provided.
* Option 4: when the priority value of SL PUCCH is smaller than sl-PriorityThreshold-UL-URLLC.
* Option 5: Others (Please specify it).

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| Company | Answer | Comment |
| Sharp | Option 1 | We don’t think any further optimization on this should be introduced at this late stage of Rel-16. |
| ZTE, Sanechips | Option 1 | Potential SL HARQ report and uRLLC PUSCH collision could be avoided by implementation in lieu of being handled by additional specific change. Priority based solutions(option 2-4) would incur additional blind detection for gNB to sort out whether multiplexing exists given it has no knowledge of SL priority level. |
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Q2: Do you agree following proposal?

Proposal:

*For prioritization between PUCCH carrying SL HARQ-ACK reports and PUSCH without UL-SCH,*

* *When the priority index of the PUSCH is 1,*
	+ *if sl-PriorityThreshold-UL-URLLC is provided*
		- *the PUCCH has higher priority than the PUSCH if the priority value of the SL HARQ-ACK reports is smaller than sl-PriorityThreshold-UL-URLLC; otherwise, the PUCCH has higher priority than the PUCCH*
	+ *else*
		- *the PUSCH has higher priority than the PUCCH*
* *else*
	+ *the SL transmission or reception has higher priority than the UL transmission if the priority value of the SL transmission(s) or reception is smaller than sl-PriorityThreshold; otherwise, the UL transmission has higher priority than the SL transmission or reception*

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| Company | Answer | Comment |
| Sharp | No | See our comments for Q1. |
| ZTE,Sanechips | No | We prefer to resolve this by implementation. |
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Q3: Whether or how to handle the case when a PUSCH with no UCI overlaps with two non-overlapping PUCCHs each of which contains SL HARQ-ACK and Uu UCI



[R1-2101583]

* Option 1: UE does not expect the above collision case
	+ Option 1-1: No spec change
	+ Option 1-2: Add a sentence in the specification
* Option 2: Apply prioritization rule for overlapping PUCCH to the case of non-overlapping PUCCH which collided with a PUSCH.
* Option 3: Others (Please specify it).

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| Company | Answer | Comment |
| Sharp | Option 1-1, orOption 1-2 | We don’t think any further optimization on this should be introduced at this late stage of Rel-16. On the other hand, maybe it is OK to add a sentence in the specification to clarify that such a case is not expected. |
| ZTE, Sanechips | 1-1 | We prefer to resolve this by implementation. Even if some high level guidance were needed, this could be implemented by a RAN1 conclusion. |
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**PP-1-3: Further consideration on prioritization rule between PUCCH for the response of MsgB and SL TX**

Q4: Do you agree following proposal?

Proposal:

* *PUCCH transmission for the response of MsgB is prioritized over SL transmission(s).*

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| Company | Answer | Comment |
| Sharp | No | We don’t think any further optimization on this should be introduced at this late stage of Rel-16. |
| ZTE, Sanechips | Yes |  |
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**PP-1-4: Further consideration on prioritization rule between SL reception and PUCCH carrying SL HARQ-ACK report**

Q5: Do you agree following proposal?

Proposal:

*For prioritization between SL RX and PUCCH carrying SL HARQ reporting,*

* *The PUCCH transmission has higher priority than a SL transmission if a priority value of the PUCCH is smaller than a priority value of the SL reception.*
* *If the priority value of the PUCCH transmission is larger than the priority value of the SL reception, the SL reception has higher priority.*

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| Company | Answer | Comment |
| Sharp | Yes | (“SL transmission” => “SL reception” in the first bullet?)In our understanding this is something missing in the spec. |
| ZTE, Sanechips | No | We prefer to discuss PSFCH/S-SSB Rx only, whose priority level is fully known to UE. The preferred change looks like.*For prioritization between SL PSFCH or S-SSB Rx and PUCCH carrying SL HARQ reporting,* * *The PUCCH transmission has higher priority than a SL PSFCH or S-SSB Rx if a priority value of the PUCCH is smaller than a priority value of the SL PSFCH or S-SSB Rx.*
* *If the priority value of the PUCCH transmission is larger than the priority value of the SL PSFCH or S-SSB reception, the SL reception has higher priority.*
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