**3GPP TSG-RAN WG2 Meeting #111-e *draftR2-2008330***

**Online, 17 – 28 August 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.321** | **CR** | **xxx** | **rev** | **-** | **Current version:** | **16.1.0** |  |
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| *For* [***HELP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** | Corrections to Prioritization for 5G V2X with NR Sidelink | | | | | | | | | |
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| ***Source to WG:*** | LG Electronics Inc. | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_V2X\_NRSL | | | | |  | ***Date:*** | | | 2020-08-21 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12) Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | This draftCR is used to trigger the follownig email discussion and finalized in R2-2008333. Rapporteur may further improve this coverpage during the second week of e-meeting.   * [AT111-e][706][V2X] Corrections for prioritization (LG for discussion and MAC CR, Vivo for RRC CR)   Discuss the corrections from {change 2 in [R2-2006585](D:\\표준회의\\[20200817]3GPP RAN2#111-e\\docs\\R2-2006585.zip) and [R2-2006613](D:\\표준회의\\[20200817]3GPP RAN2#111-e\\docs\\R2-2006613.zip)} and prepare agreeable 38.321/36.321/38.331 CRs (38.321 CR in [R2-2008333](D:\\표준회의\\[20200817]3GPP RAN2#111-e\\docs\\R2-2008333.zip), 36.321 CR in [R2-2008334](D:\\표준회의\\[20200817]3GPP RAN2#111-e\\docs\\R2-2008334.zip), 38.331 CR in [R2-2008335](D:\\표준회의\\[20200817]3GPP RAN2#111-e\\docs\\R2-2008335.zip), Offline discussion summary in [R2-2008336](D:\\표준회의\\[20200817]3GPP RAN2#111-e\\docs\\R2-2008336.zip) if needed). CRs will also cover recommendation 1B, recommendation 1C, and recommendation 2A from [R2-2008113](D:\\표준회의\\[20200817]3GPP RAN2#111-e\\docs\\R2-2008113.zip). CRs will be approved via email. Deadline is 8/26 20:00pm (UTC).  Note 1: the changes concerning prioritization in R2-2008111 are also proposed to be reflected in this CR, not in [AT111-e][705][V2X].  Note 2: Some changes in this CR depends on whether to specify LTE SL/NR UL.   1. [In RAN2#111-e, RAN2 agreed to specify the case that LTE SL transmission is prioritized while NR SL transmission is not prioritized, and apply the existing prioritization rules to the case. 2. In RAN2#111-e, RAN2 agreed to specify the case that NR SL transmission is prioritized while LTE SL transmission is not prioritized, and apply the existing prioritization rules to the case.] 3. Uplink transmission may overlap with V2X sidelink communication and/or NR sidelink communication, which requires intra-UE UL/SL prioritization. For UL/SL prioritization, UE should first check whether uplink transmission is prioritized in 5.4.2.2. Then, if uplink transmission is not prioritized or UE cannot perform UL and SL simultaneously, UE should check whether sidelink transmission is prioritized in 5.22.1.3.1a. such intra-UE prioritization can be further clarified in 5.4.2.2 and 5.22.1.3.1a.   In addition, uplink transmission can be prioritized by upper layer according to TS 23.287 [19], which is specified in 5.22.1.3.1a to be aligned with 36.321. Such UL prioritization criterion over SL can be also specified in 5.4.2.2 together with other UL prioritization criteria.  Besides, if UE can perform UL and SL simultaneously, UE does not need to check whether SL is prioritized or not in 5.4.2.2.  Finally, 36.321 can be aligned with this CR to 38.321 for UL/SL prioritization.   1. In RAN2#111-e, RAN2 agreed to specify that in case neither *sl-Prioritizationthres* nor *ul-Prioritizationthres* are configured, the NR UL is always prioritized over LTE/NR SL TX. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. [In section 5.4.2.2   Specify the case that LTE SL transmission is prioritized and the MAC entity is able to perform the UL transmission simultaneously with the LTE SL transmission while NR SL transmission is not prioritized   1. In section 5.4.2.2   Specify the case that NR SL transmission is prioritized and the MAC entity is able to perform the UL transmission simultaneously with the NR SL transmission while LTE SL transmission is not prioritized]   1. In section 5.4.2.2   Clarify that if UE can perform UL and SL simultaneously, UE does not need to check whether SL is prioritized or not.   1. In section 5.4.2.2 and 5.22.1.3.1a   Clarify that UE should first check whether uplink transmission is prioritized in 5.4.2.2 and then if uplink transmission is not prioritized or UE cannot perform UL and SL simultaneously, UE should check whether sidelink transmission is prioritized in 5.22.1.3.1a.   1. In section 5.4.2.2   Uplink transmission prioritized by upper layer according to TS 23.287 is moved from 5.22.1.3.1a to 5.4.2.2.   1. In section 5.4.4,   Clarify that in case neither *sl-Prioritizationthres* nor *ul-Prioritizationthres* are configured, the NR UL is always prioritized over LTE/NR SL TX. | | | | | | | | |
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| ***Consequences if not approved:*** | | UE performing sidelink transmission will not correctly perform UL/SL prioritization. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.4.2.2, 5.4.4, 5.22.1.3.1a | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 36.321 CR1485r1 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

START OF THE CHANGE

#### 5.4.2.2 HARQ process

Each HARQ process is associated with a HARQ buffer.

New transmissions are performed on the resource and with the MCS indicated on PDCCH or indicated in the Random Access Response (i.e. MAC RAR or fallbackRAR), or signalled in RRC or determined as specified in clause 5.1.2a for MSGA payload. Retransmissions are performed on the resource and, if provided, with the MCS indicated on PDCCH, or on the same resource and with the same MCS as was used for last made transmission attempt within a bundle, or on stored configured uplink grant resources and stored MCS when *cg-RetransmissionTimer* is configured. Retransmissions with the same HARQ process may be performed on any configured grant configuration if the configured grant configurations have the same TBS.

When *cg-RetransmissionTimer* is configured and the HARQ entity obtains a MAC PDU to transmit, the corresponding HARQ process is considered to be pending. For a configured uplink grant, configured with *cg-RetransmissionTimer*, each associated HARQ process is considered as not pending when:

- a transmission is performed on that HARQ process and LBT failure indication is not received from lower layers; or

- the configured uplink grant is initialised and this HARQ process is not associated with another active configured uplink grant; or

- the HARQ buffer for this HARQ process is flushed.

If the HARQ entity requests a new transmission for a TB, the HARQ process shall:

1> store the MAC PDU in the associated HARQ buffer;

1> store the uplink grant received from the HARQ entity;

1> generate a transmission as described below.

If the HARQ entity requests a retransmission for a TB, the HARQ process shall:

1> store the uplink grant received from the HARQ entity;

1> generate a transmission as described below.

To generate a transmission for a TB, the HARQ process shall:

1> if the MAC PDU was obtained from the Msg3 buffer; or

1> if the MAC PDU was obtained from the MSGA buffer; or

1> if there is no measurement gap at the time of the transmission and, in case of retransmission, the retransmission does not collide with a transmission for a MAC PDU obtained from the Msg3 buffer or the MSGA buffer:

2> if there are neither transmission of NR sidelink communication nor transmission of V2X sidelink communication at the time of the transmission; or

2> if the transmission of the MAC PDU is prioritized over sidelink transmission or can be simultaneously performed with sidelink transmission:

3> instruct the physical layer to generate a transmission according to the stored uplink grant.

If a HARQ process receives downlink feedback information, the HARQ process shall:

1> stop the *cg-RetransmissionTimer*, if running;

1> if acknowledgement is indicated:

2> stop the *configuredGrantTimer*, if running.

If the *configuredGrantTimer* expires for a HARQ process, the HARQ process shall:

1> stop the *cg-RetransmissionTimer*, if running.

The transmission of the MAC PDU is prioritized over sidelink transmission or can be performed simultaneously with sidelink transmission if one of the following conditions is met:

- if there are both a sidelink grant for transmission of NR sidelink communication and a configured grant for transmission of V2X sidelink communication on SL-SCH as described in clause 5.14.1.2.2 of TS 36.321 [22] at the time of the transmission, and either the value of the highest priority of the logical channel(s) in the MAC PDU is lower than *ul-PrioritizationThres* if *ul-PrioritizationThres* is configured or the MAC PDU is prioritized by upper layers according to TS 23.287 [19]; or

- if there are both a sidelink grant for transmission of NR sidelink communication and a configured grant for transmission of V2X sidelink communication on SL-SCH as described in clause 5.14.1.2.2 of TS 36.321 [22] at the time of the transmission, and the MAC entity is able to perform this UL transmission simultaneously with both the transmission of NR sidelink communication and the transmissions of V2X sidelink communication; or

- if there is only configured grant(s) for transmission of V2X sidelink communication on SL-SCH as described in clause 5.14.1.2.2 of TS 36.321 [22] at the time of the transmission, and the MAC PDU is prioritized by upper layers according to TS 23.287 [19], or the MAC entity is able to perform this UL transmission simultaneously with the transmissions of V2X sidelink communication, or none of the transmissions of V2X sidelink communication is prioritized as described in clause 5.4.2.2 of TS 36.321 [22]; or

- if there is only a sidelink grant for transmission of NR sidelink communication at the time of the transmission, and the value of the highest priority of the logical channel(s) in the MAC PDU is lower than *ul-PrioritizationThres* if *ul-PrioritizationThres* is configured, or the MAC PDU is prioritized by upper layers according to TS 23.287 [19], or the MAC entity is able to perform this UL transmission simultaneously with the transmission of NR sidelink communication, or the transmission of NR sidelink communication is not prioritized as described in clause 5.22.1.3.1a; or

- if there are both a sidelink grant for transmission of NR sidelink communication and a configured grant for transmission of V2X sidelink communication on SL-SCH as described in clause 5.14.1.2.2 of TS 36.321 [22] at the time of the transmission, and either the transmission of NR sidelink communication is not prioritized as described in clause 5.22.1.3.1a or the transmissions of V2X sidelink communication is not prioritized as described in clause 5.4.2.2 of TS 36.321 [22] or both:

NOTE 1: Among the UL transmissions where the MAC entity is able to perform the transmission of NR sidelink communication prioritized simultaneously, if there are more than one UL transmission which the MAC entity is not able to perform simultaneously, it is up to UE implementation whether this UL transmission is performed.

NOTE 2: Among the UL transmissions that the MAC entity is able to perform simultaneously with all transmissions of V2X sidelink communication prioritized, if there are more than one UL transmission which the MAC entity is not able to perform simultaneously, it is up to UE implementation whether this UL transmission is performed.

NOTE 3: Among the UL transmissions where the MAC entity is able to perform the transmission of NR sidelink communication prioritized simultaneously with all transmissions of V2X sidelink communication prioritized, if there are more than one UL transmission which the MAC entity is not able to perform simultaneously, it is up to UE implementation whether this UL transmission is performed.

NOTE 4: If there is a configured grant for transmission of V2X sidelink communication on SL-SCH as described in clause 5.14.1.2.2 of TS 36.321 [22] at the time of the transmission, and the MAC entity is not able to perform this UL transmission simultaneously with the transmission of V2X sidelink communication, and prioritization-related information is not available prior to the time of the transmission due to processing time restriction, it is up to UE implementation whether this UL transmission is performed.

NEXT CHANGE

### 5.4.4 Scheduling Request

The Scheduling Request (SR) is used for requesting UL-SCH resources for new transmission.

The MAC entity may be configured with zero, one, or more SR configurations. An SR configuration consists of a set of PUCCH resources for SR across different BWPs and cells. For a logical channel or for SCell beam failure recovery (see clause 5.17) and for consistent LBT failure (see clause 5.21), at most one PUCCH resource for SR is configured per BWP.

Each SR configuration corresponds to one or more logical channels and/or to SCell beam failure recovery and/or to consistent LBT failure. Each logical channel, SCell beam failure recovery, and consistent LBT failure, may be mapped to zero or one SR configuration, which is configured by RRC. The SR configuration of the logical channel that triggered a BSR (clause 5.4.5) or the SCell beam failure recovery or the consistent LBT failure (clause 5.21) (if such a configuration exists) is considered as corresponding SR configuration for the triggered SR. Any SR configuration may be used for an SR triggered by Pre-emptive BSR (clause 5.4.7).

RRC configures the following parameters for the scheduling request procedure:

- *sr-ProhibitTimer* (per SR configuration);

- *sr-TransMax* (per SR configuration).

The following UE variables are used for the scheduling request procedure:

- *SR\_COUNTER* (per SR configuration).

If an SR is triggered and there are no other SRs pending corresponding to the same SR configuration, the MAC entity shall set the *SR\_COUNTER* of the corresponding SR configuration to 0.

When an SR is triggered, it shall be considered as pending until it is cancelled.

Except for SCell beam failure recovery, all pending SR(s) for BSR triggered according to the BSR procedure (clause 5.4.5) prior to the MAC PDU assembly shall be cancelled and each respective *sr-ProhibitTimer* shall be stopped when the MAC PDU is transmitted and this PDU includes a Long or Short BSR MAC CE which contains buffer status up to (and including) the last event that triggered a BSR (see clause 5.4.5) prior to the MAC PDU assembly. Except for SCell beam failure recovery, all pending SR(s) for BSR triggered according to the BSR procedure (clause 5.4.5) shall be cancelled and each respective *sr-ProhibitTimer* shall be stopped when the UL grant(s) can accommodate all pending data available for transmission. All pending SR(s) for Pre-emptive BSR triggered according to the Pre-emptive BSR procedure (clause 5.4.7) prior to the MAC PDU assembly shall be cancelled and each respective *sr-ProhibitTimer* shall be stopped when a MAC PDU containing the relevant Pre-emptive BSR MAC CE is transmitted. Pending SR triggered prior to the MAC PDU assembly for beam failure recovery of an SCell shall be cancelled and respective *sr-ProhibitTimer* shall be stopped when the MAC PDU is transmitted and this PDU includes an BFR MAC CE or Truncated BFR MAC CE which contains beam failure recovery information of that SCell. Pending SR triggered for beam failure recovery of an SCell shall be cancelled upon deactivation of that SCell (as defined in clause 5.9).

The MAC entity shall for each pending SR triggered by consistent LBT failure:

1> if a MAC PDU is transmitted and the MAC PDU includes an LBT failure MAC CE that indicates consistent LBT failure for the Serving Cell that triggered this SR; or

1> if the corresponding consistent LBT failure is cancelled (see clause 5.21):

2> cancel the pending SR and stop the corresponding *sr-ProhibitTimer*.

Only PUCCH resources on a BWP which is active at the time of SR transmission occasion are considered valid.

As long as at least one SR is pending, the MAC entity shall for each pending SR:

1> if the MAC entity has no valid PUCCH resource configured for the pending SR:

2> initiate a Random Access procedure (see clause 5.1) on the SpCell and cancel the pending SR.

1> else, for the SR configuration corresponding to the pending SR:

2> when the MAC entity has an SR transmission occasion on the valid PUCCH resource for SR configured; and

2> if *sr-ProhibitTimer* is not running at the time of the SR transmission occasion; and

2> if the PUCCH resource for the SR transmission occasion does not overlap with a measurement gap:

3> if the PUCCH resource for the SR transmission occasion overlaps with neither a UL-SCH resource nor an SL-SCH resource; or

3> if the MAC entity is able to perform this SR transmission simultaneously with the transmission of the SL-SCH resource; or

3> if the MAC entity is configured with *lch-basedPrioritization*, and the PUCCH resource for the SR transmission occasion does not overlap with an uplink grant received in a Random Access Response nor with a transmission of MSGA payload, and the PUCCH resource for the SR transmission occasion for the pending SR triggered as specfied in clause 5.4.5 overlaps with any other UL-SCH resource(s), and the priority of the logical channel that triggered SR is higher than the priority of the uplink grant(s) for any UL-SCH resource(s) where the uplink grant was not already de-prioritized, and the priority of the uplink grant is determined as specified in clause 5.4.1; or

3> if both *sl-Prioritizationthres* and *ul-Prioritizationthres* are configured and the PUCCH resource for the SR transmission occasion for the pending SR triggered as specfied in clause 5.22.1.5 overlaps with any UL-SCH resource(s) carrying a MAC PDU, and the priority of the triggered SR determined as specified in clause 5.22.1.5 is lower than *sl-Prioritizationthres* and the value of the highest priority of the logical channel(s) in the MAC PDU is higher than or eqaul to *ul-Prioritizationthres*; or

3> if a SL-SCH resource overlaps with the PUCCH resource for the SR transmission occasion for the pending SR triggered as specfied in clause 5.4.5, and the MAC entity is not able to perform this SR transmission simultaneously with the transmission of the SL-SCH resource, and either transmission on the SL-SCH resource is not prioritized as described in clause 5.22.1.3.1a or the priority value of the logical channel that triggered SR is lower than *ul-Prioritizationthres*, if configured; or

3> if a SL-SCH resource overlaps with the PUCCH resource for the SR transmission occasion for the pending SR triggered as specfied in clause 5.22.1.5, and the MAC entity is not able to perform this SR transmission simultaneously with the transmission of the SL-SCH resource, and the priority of the triggered SR determined as specified in clause 5.22.1.5 is higher than the priority of the MAC PDU determined as specified in clause 5.22.1.3.1a for the SL-SCH resource:

4> consider the SR transmission as a prioritized SR transmission.

4> consider the other overlapping uplink grant(s), if any, as a de-prioritized uplink grant(s);

4> if SR\_COUNTER < sr-TransMax:

5> instruct the physical layer to signal the SR on one valid PUCCH resource for SR;

5> if LBT failure indication is not received from lower layers:

6> increment *SR\_COUNTER* by 1;

6> start the *sr-ProhibitTimer*.

5> else if *lbt-FailureRecoveryConfig* is not configured:

6> increment *SR\_COUNTER* by 1.

4> else:

5> notify RRC to release PUCCH for all Serving Cells;

5> notify RRC to release SRS for all Serving Cells;

5> clear any configured downlink assignments and uplink grants;

5> clear any PUSCH resources for semi-persistent CSI reporting;

5> initiate a Random Access procedure (see clause 5.1) on the SpCell and cancel all pending SRs.

3> else:

4> consider the SR transmission as a de-prioritized SR transmission.

NOTE 1: Except for SR for SCell beam failure recovery, the selection of which valid PUCCH resource for SR to signal SR on when the MAC entity has more than one overlapping valid PUCCH resource for the SR transmission occasion is left to UE implementation.

NOTE 2: If more than one individual SR triggers an instruction from the MAC entity to the PHY layer to signal the SR on the same valid PUCCH resource, the SR\_COUNTER for the relevant SR configuration is incremented only once.

NOTE 3: When the MAC entity has pending SR for SCell beam failure recovery and the MAC entity has one or more PUCCH resources overlapping with PUCCH resource for SCell beam failure recovery for the SR transmission occasion, the MAC entity considers only the PUCCH resource for SCell beam failure recovery as valid.

NOTE 4: For a UE operating in a semi-static channel access mode as described in TS 37.213 [18], PUCCH resources overlapping with the idle time of a fixed frame period are not considered valid.

The MAC entity may stop, if any, ongoing Random Access procedure due to a pending SR for BSR and BFR which has no valid PUCCH resources configured, which was initiated by MAC entity prior to the MAC PDU assembly. The ongoing Random Access procedure due to a pending SR for BSR may be stopped when the MAC PDU is transmitted using a UL grant other than a UL grant provided by Random Access Response or a UL grant determined as specified in clause 5.1.2a for the transmission of the MSGA payload, and this PDU includes a BSR MAC CE which contains buffer status up to (and including) the last event that triggered a BSR (see clause 5.4.5) prior to the MAC PDU assembly, or when the UL grant(s) can accommodate all pending data available for transmission. The ongoing Random Access procedure due to a pending SR for BFR of an SCell may be stopped when the MAC PDU is transmitted using a UL grant other than a UL grant provided by Random Access Response or a UL grant determined as specified in clause 5.1.2a for the transmission of the MSGA payload and this PDU contains an BFR MAC CE or Truncated BFR MAC CE which includes beam failure recovery information of that SCell. Upon deactivation of SCell (as specified in clause 5.9) configured with beam failure detection the ongoing Random Access procedure due to a pending SR for BFR may be stopped if all triggered BFRs for SCells are cancelled.

The MAC entity may stop, if any, ongoing Random Access procedure due to a pending SR for consistent LBT failure, which has no valid PUCCH resources configured, if:

- all the SCells that triggered consistent LBT failure are deactivated (see clause 5.9); or

- a MAC PDU is transmitted using a UL grant other than a UL grant provided by Random Access Response or a UL grant determined as specified in clause 5.1.2a for the transmission of the MSGA payload, and this PDU includes an LBT failure MAC CE that indicates consistent LBT failure for all the SCells that triggered consistent LBT failure.

NEXT CHANGE

##### 5.22.1.3.1a Sidelink process

The Sidelink process is associated with a HARQ buffer.

New transmissions and retransmissions are performed on the resource indicated in the sidelink grant as specified in clause 5.22.1.1 and with the MCS selected as specified in clause 8.1.3.1 of TS 38.214 [7] and clause 5.22.1.1.

If the Sidelink process is configured to perform transmissions of multiple MAC PDUs the process maintains a counter *SL\_RESOURCE\_RESELECTION\_COUNTER*. For other configurations of the Sidelink process, this counter is not available.

If the Sidelink HARQ Entity requests a new transmission, the Sidelink process shall:

1> store the MAC PDU in the associated HARQ buffer;

1> store the sidelink grant received from the Sidelink HARQ Entity;

1> generate a transmission as described below.

If the Sidelink HARQ Entity requests a retransmission, the Sidelink process shall:

1> generate a transmission as described below.

To generate a transmission, the Sidelink process shall:

1> if there is no uplink transmission; or

1> if the MAC entity is able to simultaneously perform uplink transmission(s) and sidelink transmission at the time of the transmission; or

1> if the other MAC entity and the MAC entity are able to simultaneously perform uplink transmission(s) and sidelink transmission at the time of the transmission respectively; or

1> if there is a MAC PDU to be transmitted for this duration in uplink, except a MAC PDU obtained from the Msg3 buffer, the MSGA buffer or prioritized as specified in clause 5.4.2.2, and the sidelink transmission is prioritized over uplink transmission:

2> instruct the physical layer to transmit SCI according to the stored sidelink grant with the associated Sidelink transmission information;

2> instruct the physical layer to generate a transmission according to the stored sidelink grant;

2> if *sl-HARQ-FeedbackEnabled* has been set to *enabled* for the logical channel(s) in the MAC PDU:

3> instruct the physical layer to monitor PSFCH for the transmission and perform PSFCH reception as specified in clause 5.22.1.3.2.

1> if this transmission corresponds to the last transmission of the MAC PDU:

2> decrement *SL\_RESOURCE\_RESELECTION\_COUNTER* by 1, if available.

1> if *sl-MaxTransNum* corresponding to the highest priority of the logical channel(s) in the MAC PDU has been configured in *sl-CG-MaxTransNumList* for the sidelink grant by RRC and the maximum number of transmissions of the MAC PDU has been reached to *sl-MaxTransNum*; or

1> if a positive acknowledgement to a transmission of the MAC PDU has been received according to clause 5.22.1.3.2; or

1> if only a negative acknowledgement was enabled in the SCI and no negative acknowledgement was received for the the most recent (re-)transmission of the MAC PDU according to clause 5.22.1.3.2:

2> flush the HARQ buffer of the associated Sidelink process.

The transmission of the MAC PDU is prioritized over uplink transmissions of the MAC entity or the other MAC entity which are not prioritized as specified in clause 5.4.2.2 if the following conditions are met:

1> if the MAC entity is not able to perform this sidelink transmission simultaneously with all uplink transmissions at the time of the transmission, and

1> if *sl-PrioritizationThres* is configured and if the value of the highest priority of logical channel(s) or a MAC CE in the MAC PDU is lower than *sl-PrioritizationThres* if *sl-PrioritizationThres* is configured.

NOTE: If the MAC entity is not able to perform this sidelink transmission simultaneously with all uplink transmissions as specified in clause 5.4.2.2 of TS 36.321 [22] at the time of the transmission, and prioritization-related information is not available prior to the time of this sidelink transmission due to processing time restriction, it is up to UE implementation whether this sidelink transmission is performed.

END OF THE CHANGE