Companies please share their inputs on the excel spreadsheet in ‘/tsg\_ran/WG1\_RL1/TSGR1\_106-e/Inbox/drafts/8.12.2/RRC Parameters/’.

## Inputs on version-000

Please share your inputs, if any, in the following table

|  |  |
| --- | --- |
| **Company** | **Input** |
| Qualcomm | For pucch-ConfigurationList-MulticastIs it common by ACK/NACK-based and NACK-only-based multicast feedback?Based on the following agreement, we support separate *PUCCH-ConfigurationList* for ACK/NACK-based and NACK-only-based multicast feedback.Agreement:For the separate *PUCCH-ConfigurationList* that is optionally configured to UE for NACK-only based HARQ-ACK feedback for multicast,* + The separate *PUCCH-ConfigurationList* for multicast configuration can be a list which includes up to 2 *PUCCH-Config* configurations corresponding low priority feedback and high priority feedback, respectively.

FFS: how to handle the case when separate *PUCCH-ConfigurationList* is not configured to UE for NACK-only based HARQ-ACK feedback for multicast.For harq-FeedbackEnabler-MulticastA parameter for RRC-configured enabling/disabling (if no function of GC-DCI GC-DCI enabling/disabling is configured) is missing. For the function of GC-DCI enabling/disabling, RAN1 has not decided whether to configure it per G-RNTI yet. It should be FFS for now.For pdsch-HARQ-ACK-CodebookList-Multicast and pdsch-HARQ-ACK-Codebook-Multicast:The following agreement is missing.Agreement:When UE is configured with the *pdsch-HARQ-ACK-Codebook/pdsch-HARQ-ACK-CodebookList* for ACK/NACK based feedback for multicast, it is applied to all G-RNTIs configured to UE.For pdsch-AggregationFactor-MulticastDoes it only apply to dynamic GC-PDSCH? Or both dynamic and SPS GC-PDSCH? Or a separate *pdsch-AggregationFactor-Multicast* can be configured in a *sps-Config-Multicast*?Note that for unicast, separate *pdsch-AggregationFactor* can be configured in PDSCH-Config and SPS-Config, respectively. If the one in SPS-Config is absent, it follows *pdsch-AggregationFactor* configured in PDSCH-Config, as specified below (in 38.331).***pdsch-AggregationFactor***Number of repetitions for SPS PDSCH (see TS 38.214 [19], clause 5.1.2.1). When the field is absent, the UE applies PDSCH aggregation factor of PDSCH-Config. |
| FL’s response | @ QualcommThe agreement/proposal intended to focus on NACK-only and unicast, but now the agreement states it is for NACK and FFS how to handle the case when the separate one is not configured. Therefore, accordingly I added two rows to address this point. When we later on are clear how to handle the FFS, we can revisit such parameters then. Regarding the comment that a parameter for RRC-configured enabling/disabling (if no function of GC-DCI GC-DCI enabling/disabling is configured) is missing. Actually it is reflected by “default value”. RRC either configures enable, or “listen to DCI”/dci-enabler, or by default “disabled”. The parameters *pdsch-HARQ-ACK-Codebook/pdsch-HARQ-ACK- CodebookList* has been there in the last two rows. *pdsch-AggregationFactor-Multicast* intended to apply to dynamic only because the agreement was made for dynamic only. It should be straightforward to extend it to SPS meaning a separate configuration for SPS but strictly we don’t have such an agreement. Even though we all agree to have a separate configuration for SPS as is for unicast, I guess we may not need to spell it out in this RRC parameter list because SPS-Config is reused for multicast, and unicast SPS and multicast SPS are configured with different SPS configuration indexes. *pdsch-AggregationFactor* has been one existing parameter in SPS-Config.  |

## Inputs on version-001

Please share your inputs, if any, in the following table

|  |  |
| --- | --- |
| **Company** | **Input** |
| Apple | For parameter sps-PUCCH-AN-List-Multicast, the corresponding parameter sps-PUCCH-AN-Multicast is missing. According to below agreements, if separate sps-PUCCH-AN-List for multicast is configured, the separate sps-PUCCH-AN for multicast should be configured as well. Agreement:For support of ACK/NACK based HARQ-ACK feedback for SPS multicast, * the HARQ-ACK codebook index corresponding the HARQ-ACK codebook for SPS PDSCH is included in the configuration for SPS multicast.
	+ UE determines a priority index from the HARQ-ACK codebook index
* UE can be optionally configured a separate SPS-PUCCH-AN-List for all SPS multicast configurations. Otherwise, a common SPS-PUCCH-AN-List applies to all SPS unicast and SPS multicast configurations.
 |
| FL’s response | @Apple, added as Apple suggested.  |

## Inputs on version-002

|  |  |
| --- | --- |
| **Company** | **Input** |
| ZTE | Regarding harq-FeedbackEnabler-Multicast, the current value range is {dci-enabler, enabled}. However, based on the yellow highlighted parts in previous agreements, it seems we need to update the value range to “{ dci-enabler, enabled, disable}”Agreement:Update the WA made in RAN1#105-e meeting regarding enabling/disabling HARQ-ACK feedback as follows:Working assumption:For enabling/disabling ACK/NACK-based HARQ-ACK feedback for RRC\_CONNECTED UE receiving multicast via dynamic group-common PDSCH:* RRC signaling configures the enabling/ disabling function of group-common DCI indicating the enabling /disabling ACK/NACK based HARQ-ACK feedback.
	+ If RRC signaling configures the function of group-common DCI based indication, group-common DCI indicates (explicitly or implicitly) whether ACK/NACK based HARQ-ACK feedback is enabled/disabled
	+ Otherwise, enabling/disabling ACK/NACK based HARQ-ACK feedback is configured by RRC signaling.
	+ FFS details on RRC signaling and group-common DCI indicating.
* FFS whether/how this option is extended to apply to NACK-only based feedback and multiple G-RNTI cases.
* FFS the relation to the HARQ-ACK codebook types and HARQ-ACK codebook construction.
* FFS the relation to the enabling/disabling ACK/NACK based HARQ-ACK feedback for retransmission.
* FFS whether/how to allow UE not to react to the DCI signaling, but instead follow UE-specific RRC configuration for HARQ feedback.
* FFS whether/how to apply it to SPS group-common PDSCH.
* UE capability for enabling/ disabling function of group-common DCI indicating the enabling /disabling ACK/NACK based HARQ-ACK feedback is introduced and FFS details.
* Note: It is up to network implementation to avoid any potential HARQ ACK mismatch between different UEs in the same multicast group
 |
| FL’s response | @ZTE,Since the configuration of *harq-FeedbackEnabler-Multicast* will be optional and the default value when this parameter is absent will be discussed anyway, I formulated “disabled” as the default. I wonder whether it is ok to ZTE and if not, what is the essential difference between what you suggested and what I formulated for now?  |