3GPP TSG-RAN WG2 #109bis-e R2-20xxxxx

Electronic Meeting, April 20th – 30th 2020

Agenda Item: 6.0.1

Source: Ericsson

Title: [AT109bis-e][065][NR RIL] DiscMail1

Document for: Discussion, Decision

# 1 Introduction

This document is to kick off the following email discussion:

* [AT109bis-e][065][NR RIL] DiscMail1 (Ericsson)

Scope: Discussion and implementation of review issues.

Wanted outcome: a) Agreed RIL Status update in the email discussion report b) Agreed ASN.1/procedure text proposal included in the email discussion report.
After email discussion report is agreed, the TPs will be included in the ASN.1 Review file, for the continued ASN.1 review.

Deadline: **Email discussion Stop at EOM, April 30 (short extension 1 week could be considered if needed).**

In particular, the following issues are addressed in this document:

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| **RIL #** | **Issue** | **Feature** |
| Z502 | Correction to field description of BH-LogicalChannelIdentity | IAB |
| Z502 | Correction to field description of BH-LogicalChannelIdentity | IAB |
| Z020 | Correction to field description of ChannelAccessPriority | NR-U |
| S017 | Moving usePreBSR-r16 field within BSR-Config IE | IAB |
| S019 | Correction to the need code of usePreBSR-r16 | IAB |
| S056 | Change lbt-FailureRecoveryConfig-r16 to setupRelease structure | NR-U |
| S057 | Correction to the need code of schedulingRequestID-LBT-SCell-r16 | NR-U |
| O404 | Correction to field description of lch-BasedPrioritization-r16 | IIOT |
| Z280 | Correction to field description of schedulingRequestID-BFR-SCell | MIMO |

# 2 Discussion

Companies are requested to add their comments for each of the treated CRs of this email discussion in the boxes below (one for each CR to be treated).

## 2.1 RIL #Z02 and #Z03

The issue #Z02 and #Z03 are described as follows:

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| *BH-LogicalChannelIdentity* field descriptions |
| ***bh-LogicalChannelIdentity***ID used commonly for the MAC logical channel and for the BH RLC channel. |
| ***bh-LogicalChannelIdentityExt***ID used commonly for the MAC logical channel and for the BH RLC channel. |

**[RIL]**: Z502 **[Delegate]**: ZTE(LinChen) **[WI]**: IAB **[Class]**: 2 **[Status]**: DiscMail1 **[TDoc]**: None **[Proposed Conclusion]**:

**[Description]**: *bh-RLC-ChannelID-r16* IE in *BH-RLC-ChannelConfig* is used to indicate the BH RLC channel. *bh-LogicalChannelIdentity IE* is used only for the MAC logical channel.

**[Proposed Change]**: “and for the BH RLC channel” should be removed.

**[Comments]**:

**[RIL]**: Z503 **[Delegate]**: ZTE(LinChen) **[WI]**: IAB **[Class]**: 2 **[Status]**: DiscMail1 **[TDoc]**: None **[Proposed Conclusion]**:

**[Description]**: *bh-RLC-ChannelID-r16* IE in *BH-RLC-ChannelConfig* is used to indicate the BH RLC channel. *bh-LogicalChannelIdentityExt IE* is used only for the MAC logical channel.

**[Proposed Change]**: “and for the BH RLC channel” should be deleted.

**[Comments]**:

According to the issues raised in both #Z502 and #Z503, do companies agree that the fields descriptions of BH-LogicalChannelIdentity needs to be updated according to the proposed changes in the RILs?

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## 2.3 RIL #Z020

The issue in RIL #Z020 is summarized as follows:

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| ***channellAccessPriority***Indicates the Channel Access Priority Class (CAPC), as specified in TS 38.300 [2] and TS 38.321 [3], to be used on transmission using configured grants on shared spectrum. The network configures this field only for SRB2 and DRBs. |

**[RIL]**: Z020 **[Delegate]**: Z(EV) **[WI]**:NR-U **[Class]**:2 **[Status]**: DiscMail1 **[TDoc]**: None **[Proposed Conclusion]**:

**[Description]**: For the field description, 38.321 is referenced, but CAPAC seems not mentioned within this spec. Also, the CAPAC signalled will be applicable for the case when UL grant indicates LBT type 1 in DCI 0\_0. This needs to be clarified.

**[Proposed Change]**: Modify field description as follows

Indicates the Channel Access Priority Class (CAPC), as specified in TS 38.300 [2] ~~and TS 38.321 [3],~~ to be used on transmission using configured grants and UL dynamic grants where CAPC is not indicated in DCI for shared spectrum access. The network configures this field only for SRB2 and DRBs.

**[Comments]**:

According to the issue raised in #Z020, do companies agree that the fields descriptions of ChannelAccessPriority needs to be updated according to the proposed changes in the RILs?

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## 2.4 RIL #S017

The issue in RIL #S017 is summarized as follows:

MAC-CellGroupConfig ::= SEQUENCE {

 drx-Config SetupRelease { DRX-Config } OPTIONAL, -- Need M

 schedulingRequestConfig SchedulingRequestConfig OPTIONAL, -- Need M

 bsr-Config BSR-Config OPTIONAL, -- Need M

 tag-Config TAG-Config OPTIONAL, -- Need M

 phr-Config SetupRelease { PHR-Config } OPTIONAL, -- Need M

 skipUplinkTxDynamic BOOLEAN,

 ...,

 [[

 csi-Mask BOOLEAN OPTIONAL, -- Need M

 dataInactivityTimer SetupRelease { DataInactivityTimer } OPTIONAL -- Cond MCG-Only

 ]],

 [[

 usePreBSR-r16 ENUMERATED {true} OPTIONAL, -- Need M

 lbt-FailureRecoveryConfig-r16 LBT-FailureRecoveryConfig-r16 OPTIONAL, -- Need M

 schedulingRequestID-LBT-SCell-r16 SchedulingRequestId OPTIONAL, -- Need M

 lch-BasedPrioritization-r16 ENUMERATED {enabled} OPTIONAL, -- Need R

 schedulingRequestID-BFR-SCell-r16 SchedulingRequestId OPTIONAL -- Need R

 ]]

}

**[RIL]**: S017 **[Delegate]**: Samsung (Milos) **[WI]**: IAB **[Class]**: 2 **[Status]**: DiscMail1 **[TDoc]**: None **[Proposed Conclusion]**:

**[Description]**: usePreBSR (used to configure use of Pre-emptive BSR for IAB nodes) is currently part of MAC-CellGroupConfig

**[Proposed Change]**: in our view, it should instead be part of bsr-Config (as an optional element), instead of standalone like here

**[Comments]**:

According to the issue raised in #S017, do companies agree to move the field use-PreBSR within the BSR-Config IE?

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## 2.5 RIL #S019

The issue in RIL #S019 is summarized as follows:

MAC-CellGroupConfig ::= SEQUENCE {

 drx-Config SetupRelease { DRX-Config } OPTIONAL, -- Need M

 schedulingRequestConfig SchedulingRequestConfig OPTIONAL, -- Need M

 bsr-Config BSR-Config OPTIONAL, -- Need M

 tag-Config TAG-Config OPTIONAL, -- Need M

 phr-Config SetupRelease { PHR-Config } OPTIONAL, -- Need M

 skipUplinkTxDynamic BOOLEAN,

 ...,

 [[

 csi-Mask BOOLEAN OPTIONAL, -- Need M

 dataInactivityTimer SetupRelease { DataInactivityTimer } OPTIONAL -- Cond MCG-Only

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 [[

 usePreBSR-r16 ENUMERATED {true} OPTIONAL, -- Need M

 lbt-FailureRecoveryConfig-r16 LBT-FailureRecoveryConfig-r16 OPTIONAL, -- Need M

 schedulingRequestID-LBT-SCell-r16 SchedulingRequestId OPTIONAL, -- Need M

 lch-BasedPrioritization-r16 ENUMERATED {enabled} OPTIONAL, -- Need R

 schedulingRequestID-BFR-SCell-r16 SchedulingRequestId OPTIONAL -- Need R

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}

**[RIL]**: S019 **[Delegate]**: Samsung (Milos) **[WI]**: IAB **[Class]**: 2 **[Status]**: DiscMail1 **[TDoc]**: None **[Proposed Conclusion]**:

**[Description]**: ‘Need M’ is not the suitable choice.

**[Proposed Change]**: It should be 'Need R' or 'boolean with Need M' so that the configuration can be released. 'boolean with Need M' is preferable, to enable delta signaling (and thus reduce signaling overhead).

**[Comments]**:

According to the issue raised in #S019, do companies agree to change the need code of use-PreBSR?

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## 2.6 RIL #S056

The issue in RIL #S056 can be summarized as follows:

MAC-CellGroupConfig ::= SEQUENCE {

 drx-Config SetupRelease { DRX-Config } OPTIONAL, -- Need M

 schedulingRequestConfig SchedulingRequestConfig OPTIONAL, -- Need M

 bsr-Config BSR-Config OPTIONAL, -- Need M

 tag-Config TAG-Config OPTIONAL, -- Need M

 phr-Config SetupRelease { PHR-Config } OPTIONAL, -- Need M

 skipUplinkTxDynamic BOOLEAN,

 ...,

 [[

 csi-Mask BOOLEAN OPTIONAL, -- Need M

 dataInactivityTimer SetupRelease { DataInactivityTimer } OPTIONAL -- Cond MCG-Only

 ]],

 [[

 usePreBSR-r16 ENUMERATED {true} OPTIONAL, -- Need M

 lbt-FailureRecoveryConfig-r16 LBT-FailureRecoveryConfig-r16 OPTIONAL, -- Need M

 schedulingRequestID-LBT-SCell-r16 SchedulingRequestId OPTIONAL, -- Need M

 lch-BasedPrioritization-r16 ENUMERATED {enabled} OPTIONAL, -- Need R

 schedulingRequestID-BFR-SCell-r16 SchedulingRequestId OPTIONAL -- Need R

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}

**[RIL]**: S056 **[Delegate]**: Samsung (Jaehyuk) **[WI]**: NR-U **[Class]**: 2 **[Status]**: DiscMail1 **[TDoc]**: None **[Proposed Conclusion]**:

**[Description]**: SetupRelease with Need M should be used so that the configuration can be released.

**[Proposed Change]**: Change it to SetupRelease with Need M.

**[Comments]**:

According to the issue raised in #S056, do companies agree to change the structure of lbt-FailureRecoveryConfig-r16 to setupRelease?

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## 2.7 RIL #S057

The issue described in RIL #S057 can be described as follows:

The issue in RIL #S019 is summarized as follows:

MAC-CellGroupConfig ::= SEQUENCE {

 drx-Config SetupRelease { DRX-Config } OPTIONAL, -- Need M

 schedulingRequestConfig SchedulingRequestConfig OPTIONAL, -- Need M

 bsr-Config BSR-Config OPTIONAL, -- Need M

 tag-Config TAG-Config OPTIONAL, -- Need M

 phr-Config SetupRelease { PHR-Config } OPTIONAL, -- Need M

 skipUplinkTxDynamic BOOLEAN,

 ...,

 [[

 csi-Mask BOOLEAN OPTIONAL, -- Need M

 dataInactivityTimer SetupRelease { DataInactivityTimer } OPTIONAL -- Cond MCG-Only

 ]],

 [[

 usePreBSR-r16 ENUMERATED {true} OPTIONAL, -- Need M

 lbt-FailureRecoveryConfig-r16 LBT-FailureRecoveryConfig-r16 OPTIONAL, -- Need M

 schedulingRequestID-LBT-SCell-r16 SchedulingRequestId OPTIONAL, -- Need M

 lch-BasedPrioritization-r16 ENUMERATED {enabled} OPTIONAL, -- Need R

 schedulingRequestID-BFR-SCell-r16 SchedulingRequestId OPTIONAL -- Need R

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}

**[RIL]**: S057 **[Delegate]**: Samsung (Jaehyuk) **[WI]**: NR-U **[Class]**: 2 **[Status]**: DiscMail1 **[TDoc]**: None **[Proposed Conclusion]**:

**[Description]**: It should be Need R so that the configuration can be released later.

**[Proposed Change]**: Change Need code to Need R.

**[Comments]**:

According to the issue raised in #S057, do companies agree to change the need code of schedulingRequestID-LBT-SCell-r16 to Need R?

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## 2.8 RIL #O404

The issue in RIL #O404 can be described as follows:

MAC-CellGroupConfig ::= SEQUENCE {

 drx-Config SetupRelease { DRX-Config } OPTIONAL, -- Need M

 schedulingRequestConfig SchedulingRequestConfig OPTIONAL, -- Need M

 bsr-Config BSR-Config OPTIONAL, -- Need M

 tag-Config TAG-Config OPTIONAL, -- Need M

 phr-Config SetupRelease { PHR-Config } OPTIONAL, -- Need M

 skipUplinkTxDynamic BOOLEAN,

 ...,

 [[

 csi-Mask BOOLEAN OPTIONAL, -- Need M

 dataInactivityTimer SetupRelease { DataInactivityTimer } OPTIONAL -- Cond MCG-Only

 ]],

 [[

 usePreBSR-r16 ENUMERATED {true} OPTIONAL, -- Need M

 lbt-FailureRecoveryConfig-r16 LBT-FailureRecoveryConfig-r16 OPTIONAL, -- Need M

 schedulingRequestID-LBT-SCell-r16 SchedulingRequestId OPTIONAL, -- Need M

 lch-BasedPrioritization-r16 ENUMERATED {enabled} OPTIONAL, -- Need R

 schedulingRequestID-BFR-SCell-r16 SchedulingRequestId OPTIONAL -- Need R

 ]]

}

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| --- |
| ***lch-BasedPrioritization***If this field is present, the UE is configured with prioritization between overlapping grants and between scheduling request and overlapping grants based on LCH priority, see see TS 38.321 [3]. Editor's Note: It is FFS whether SR/data prioritization can be a separate configurable parameter from data/data prioritization. |

**[RIL]**: O404 **[Delegate]**: OPPO(fuzhe) **[WI]**:IIOT **[Class]**:2 **[Status]**: DiscMail1 **[TDoc]**: None **[Proposed Conclusion]**:

**[Description]**: lch-BasedPrioritization is configured per cell group. It is possible that either MCG or SCG is with this IE configured. For this case, UE can only perform LCH-based prioritization for the associated cell group other than UE itself.

**[Proposed Change]**: Change "If this field is present, the UE is configured with prioritization between overlapping grants and between scheduling request and overlapping grants based on LCH priority" to "If this field is present, the corresponding MAC entity of the UE is configured with prioritization between overlapping grants and between scheduling request and overlapping grants based on LCH priority".

**[Comments]**:

According to the issue raised in #O404, do companies agree to change the field description of lch-BasedPrioritization to what is proposed in the RIL?

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## 2.9 RIL #Z280

The issue in RIL #Z280 can be summarized as follows:

MAC-CellGroupConfig ::= SEQUENCE {

 drx-Config SetupRelease { DRX-Config } OPTIONAL, -- Need M

 schedulingRequestConfig SchedulingRequestConfig OPTIONAL, -- Need M

 bsr-Config BSR-Config OPTIONAL, -- Need M

 tag-Config TAG-Config OPTIONAL, -- Need M

 phr-Config SetupRelease { PHR-Config } OPTIONAL, -- Need M

 skipUplinkTxDynamic BOOLEAN,

 ...,

 [[

 csi-Mask BOOLEAN OPTIONAL, -- Need M

 dataInactivityTimer SetupRelease { DataInactivityTimer } OPTIONAL -- Cond MCG-Only

 ]],

 [[

 usePreBSR-r16 ENUMERATED {true} OPTIONAL, -- Need M

 lbt-FailureRecoveryConfig-r16 LBT-FailureRecoveryConfig-r16 OPTIONAL, -- Need M

 schedulingRequestID-LBT-SCell-r16 SchedulingRequestId OPTIONAL, -- Need M

 lch-BasedPrioritization-r16 ENUMERATED {enabled} OPTIONAL, -- Need R

 schedulingRequestID-BFR-SCell-r16 SchedulingRequestId OPTIONAL -- Need R

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}

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| --- |
| ***schedulingRequestID-BFR-SCell***If present, it indicates the scheduling request configuration applicable for BFR on SCell, as specified in TS 38.321 [3]. |

**[RIL]**: Z280 **[Delegate]**: ZTE (Dong Fei) **[WI]**: NR\_eMIMO-Core **[Class]**: 3 **[Status]**: DiscMail1 **[TDoc]**: **[Proposed Conclusion]**:

**[Description]**: It seems the following contents is needed in the field description:

In case the BFR on SCell is not configured, it shall be absent

**[Proposed Change]**:

***schedulingRequestID-BFR-SCell***

If present, it indicates the scheduling request configuration applicable for BFR on SCell, as specified in TS 38.321 [3].In case the BFR on SCell is not configured, it shall be absent

**[Comments]**:

According to the issue raised in #Z280, do companies agree to change the field description of schedulingRequestID-BFR-SCell to what is proposed in the RIL?

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| Company | Yes/No | Comments |
| Ericsson | Yes | The current field description is ok.A conditional presence tag should be added. Something along the lines, “The field is optionally present if BFR on SCell is configured. It is absent otherwise, Need R. |
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# Conclusion

In the previous sections we made the following observations:

Based on the discussion in the previous sections we propose the following:

# References

[1]