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| **Company** | **Section/clause/IE** | **Comments/Suggested Change** | **Rapp Response** |
| ZTE | BeamFailureRecoveryConfig | ra-OccasionType-r19 can only indicate SBFD. If gNB indicates non-SBFD RO, gNB can make the field absent. | This may be different taste of design. The actual bit is the same (one bit). Rapp think explicit signaling is clearer than implicit signalling (by absence), open for more views from companies.  |
| ZTE | sbfd-RACH-SingleConfig-r19 | Option 1 should be indicated per RACH-ConfigCommon?Option 1 and option 2 cannot be configured together for all the RACH-ConfigCommon (including those in the AdditionalRACH-ConfigList-r17), this condition should be added. | For the first question, yes, the R19 gNB configures Option1 through RACH-ConfigCommon. For the second question, it is already stated in 300 running CR that “A cell can configure only one RACH configuration option”. Rapp thinks no need to duplicate this restriction in FD. Open to add if majority companies want to add.  |
| Nokia | sbfd-RACH-SingleConfig-r19 | Same understanding as ZTE | See above |
| Nokia  | CSI-ReportConfig  | The metrics cli-RSSI and cli-SRS-RSRP are not included as part of new reporting metrics within *CSI-ReportConfig* IE.  | Rapp understands the report quantity is the same as in legacy.  |
| Nokia  | CSI-ResourceConfig  | The definition of the *CSI-ResourceConfig* IE should be updated to indicate that it is also used to define a group of CLI-RSSI or SRS-RSRP resource sets.  |  Yes. Thanks for spotting this. Will add in the next version.  |
| Nokia  | CSI-ReportConfig  | The definition of *resourcesForChannelMeasurement* should be extended to cover CLI-RSSI and SRS-RSRP resources  |  The new field resourcesForChannelCLI covers CLI-RSSI and SRS-RSRP resources.  |
| Xiaomi | ASN.1 grammar: there are several places where commas are placed before “]]”. For example: OPTIONAL, -- Need M ]] | Remove comma before “]]”. | Thanks for spotting this. Two such cases with “rach-ConfigConmonSBFD-r19” to be corrected in the next version.  |
| Xiaomi | Naming convention is not followed for several field or IE names.  | Understand the names might be based on RAN1 parameter list, but proper name should be used in 38.331.The examples of name corrections:RACH-configConmonSBFD-r19 🡪 RACH-ConfigConmonSBFD-r19sbfd-rsrp-ThresholdRO-Type-r19 🡪 sbfd-RSRP-ThresholdRO-Type-r19… | Thanks. -rsrp- to be changed to -RSRP-, -config to be changed to -Config. in next version. Also Conmon to be changed to Common.  |
| Xiaomi  | sbfd-RACH-SingleConfig-r19  | In RAN1 parameter list R1-2503155, the IE location (column “Per (UE, cell, TRP, …)”) is empty with yellow background. Not sure whether RAN1 will further update it. Maybe we can have an Editor’s note about the IE location. | Will add EN for this in next version.  |
| Xiaomi | Relationship between sbfd-RACH-SingleConfig-r19 and sbfd-RACH-DualConfig-r19  | Similar comment as ZTE for sbfd-RACH-SingleConfig-r19.In RAN1#117 meeting, RAN1 agreed that “Enabling both options at the same time for a UE is not supported”. Suggest to capture the restriction in field description or condition. | See response above. |
| LGE001 | - | Remove unchanged IE and clauses. Given that RRC spec is large-sized, it is really hard to review unless the running RRC CR only includes essential part. | Rapp started from the full 331 as not clear which sections will be changed. Indeed it is big and easily freezes in Print Layout mode. One workaround is change to ”Draft mode” immediately after opening the word file then no repagination/freezing issues.  |
| LGE002 | sbfd-rsrp-ThresholdMsg1-RepetitionNum2/4/8 IE in RACH-configConmonSBFD | According to RAN1 parameter list, the separated RSRP threshold to determine Msg1 repetition number for SBFD RO is configured for each BWP, not for each RACH partition.Given that legacy RSRP threshold to determine Msg1 repetition number in legacy RO is configured within BWP-UplinkCommon IE, this separated RSRP threshold should be configured in the same place, i.e., directly within BWP-UplinkCommon IE. There is no need to further configure these thresholds in AdditionalRACH-Config IE.Suggestion: move sbfd-rsrp-ThresholdMsg1-RepetitionNum2/4/8 to directly in BWP-UplinkCommon IE and remove these from RACH-ConfigCommonSBFD IE. | Indeed those three thresholds are generic paramters, shall be listed together with the legacy thresholds. To be revised in the next version.  |
| LGE003 | *sbfd-RACH-SingleConfig* | We may need to further discuss whether the this indication (i.e., indicating whether RACH configuration Option 1 for SBFD random access operation is enabled or not from network side) should be configured for each Cell/BWP or for each RACH configuration). We are okay for companies’ view but given that there is no explicit discussion on this, propose to add an EN to further discuss. | Add one EN on this |
| LGE004 | *sbfd-RACH-SingleConfig* and *sbfd-RACH-DualConfig* in BWP*-UplinkCommon* IE | Similar comment as ZTE.In RAN2#128 meeting, it is agreed that only one RACH configuration option is supported in a cell:* Only one RACH configuration option (i.e., either RACH configuration Option 1 with Alt 1-1 or RACH configuration Option 2) is supported in a cell.

Therefore, some network restriction to allow only one RACH configuration option in a cell should be specified, e.g., in field description or in conditional presence. | See response on this comment above. |
| LGE005 | ra-OccasionType in *BeamFailureRecoveryConfig* | In our understanding, this indication is intended to indicate RO type in **CFRA** case:* **For CFRA** triggered by BFR, the RO type is indicated in BeamFailureRecoveryConfig.

However, in BFR config, it is possible that CFRA resource is not included, while RA prioritization parameter (e.g., ra-Prioritization IE or ra-PrioritizationTwoStep IE) is included in the BFR config. In this case, even though the RA is initiated for Beam failure recovery, CBRA is performed due to no CFRA resource in BFR config. Note that it is different fallback from CFRA to CBRA, which is caused by low channel quality even though CFRA resource is configured for BFR.In this sense, in order to avoid any confusion on whether the RO type can indicated without CFRA resource configuration, suggest to change the field description of ra-OccasionType-19 as follows:Indicates the RACH occasion type for CFRA, SBFD or non-SBFD, to be used a SBFD capable UE. | Add “for CFRA” in the next version. |
| LGE006 | ra-OccasionType in *RACH-ConfigDedicated* | Similar comment in LGE005. It should be clarified that this field indicates RO type for **CFRA** cases. Suggest to change the field description of ra-OccasionType-19 as follows:Indicates the RACH occasion type for CFRA, SBFD or non-SBFD, to be used a SBFD capable UE. | Same as above |
| LGE007 | SchedulingRequestResourceConfigExt-v19xy | SchedulingRequestResourceConfigExt-v19xy is defined, but it is never be used. Similar to other SchedulingRequestResourceConfigExt-v1610/v1700, following configuration may be needed under PUCCH-Config IE, as an optional field:* schedulingRequestResourceToAddModListExt-v19xy SEQUENCE (SIZE (1..maxNrofSR-Resources)) OF SchedulingRequestResourceConfigExt-v19xy
 | Thanks for the suggestion, will adopt in the next version.  |
| LGE008 | PUCCH-CSI-ResourceExt-v19xy | Similar as LGE007, PUCCH-CSI-ResourceExt-v19xy is never used. Further discussion may be needed on how to configure symbol type for each PUCCH-CSI-Resource, based on RAN1 parameter list. | Add one line with a new field pucch-CSI-ResourceListExt-r19: pucch-CSI-ResourceListExt-r19 SEQUENCE (SIZE (1..maxNrofBWPs)) OF PUCCH-CSI-ResourceExt-v19xy. And one EN on this revision.  |
| LGE009 | SCS-SpecificCarrier | Typo: close the square bracket, i.e., ‘]]’ is missing at the end of SCS-SpecificCarrier IE. | Good catch! |
| CMCC | BWP-UplinkCommon | Within table of BWP-UplinkCommon field descriptions, we think that the last sentence of additionalRACH-ConfigList should be revised to “If at least two of rach-ConfigCommon, msgA-ConfigCommon and rach-ConfigCommonSBFD are configured for a specific FeatureCombination, the network always provides them in the same additionalRACH-Config.”. | Rapp thinks this sentence might need further consideration. First, msgA-ConfigCommon will not be present with rach-ConfigCommonSBFD at the same time (SBFD not supported with SBFD). Second, SBFD is not a feature and two same rach-ConfigCommonSBFD are placed as one with rach-ConfigCommon and another within AdditionalRACH-Config-r17. |
| Nokia  | BWP-{Downlink,Uplink}Dedicated  | On the description of *sbfd-Configuration2-{Reception,Transmission}*, RAN1 specifications specify the behaviour when *sbfd-Configuration2-{Reception, Transmission}* is provided, and do not refer to a ‘configuration 1’ in any case. We think the sentence in the description ‘If not enabled, Configuration 1 is applied for xxx in the given DL BWP’ can be removed  |  RAN1 explictly states “If not enabled…” in their FD. Will keep both for clarity (also the need code is Need S now, so specification is needed when this field is not configured/enabled. ) |
| Nokia  | ConfiguredGrantConfig, SchedulingRequestResourceConfig, etc..  | Same reasoning as earlier: ‘for SBFD Configuration 1’ can be removed from the description of *symbolType*. It is clear from the second sentence that this is only configured when Configuration 2 is not enabled.   | Unless there is strong motivation to remove (error, dupicated texts etc.), Rapp prefers to follow RAN1 FD in their list at least for now.  |
| ERI1 | BeamFailureRecoveryConfig | We agree with ZTE very first comment.Additionally, we typically do not state that certain field is for UE that support certain feature.We should also avoid “SBFD capable” but instead use “SDFB-aware”, we think this is preferred is in RAN1. This is a general comment, there are some “SBFD capable” in the CR. |  |
| ERI2 | sbfd-RACH-SsingleConfig-preambleReceivedTargetPower | Field description refers to SBFD RACH Configuration option 1. I do not expect RAN1 spec will clarify these options, we should consider clarify them in 38331, if we at all need them.  |  |
| ERI3 | sbfd-Configuration2-Transmission-r19 | General, can use “Config” instead of “Configuration” (many places).Also, we do not need the word “Transmission”, since this is obvious from an UL BWP?(Same comments for sbfd-Configuration2-Reception-r19).If this field is configured always together with next field sbfd-Configuration2-PUSCH-RBOffset-r19, then this can be expressed in ASN.1? |  |
| ERI4 | Gen | In many field descriptions CR uses text similar to “The network does not configure this field if SBFD Configuration 2 is enabled for the UL BWP. (see TS 38.214 [19], clause 7.2)”.Normally, we prefer to use the field name by wich the feature is enabled.Question: Is same Config used in both UL and DL? |  |
| ERI5 | resourcesForChannelCLI | Not sure if covered by others, but this field description need more work. |  |
| ERI6 | CSI-MeasConfig | (Editorial) Can use Meas instead of Measurement in field names of new fields, such that each definition occupies a single line. |  |
| ERI7 | (General) | (Editorial: Can get cleaner CR by avoiding changes on changes, and by accepting the Word-generated comments for format changes.) |  |
| CATT001 | sbfd-Configuration2-Reception-r19 | sbfd-Configuration2Reception-r19 |  |
| CATT002 | sbfd-RACH-DdualConfig-ValidROacrossSymbolTypes-r19 | sbfd-RACH-DdualConfig-ValidRO-acrossSymbolTypes-r19 |  |
| CATT003 | RACH-ConfigCommonSBFD-r19 = SEQUENCE { sbfd-RACH-SingleConfig-r19 ENUMERATED {enabled} OPTIONAL, -- Need R sbfd-RACH-DualConfig-r19 SBFD-RACH-DualConfig-r19 OPTIONAL, -- Need R | RACH-ConfigCommonSBFD-r19 = SEQUENCE { sbfd-RACH-ConfigCommon CHOICE {sbfd-RACH-SingleConfig-r19 ENUMERATED {enabled} OPTIONAL, -- Need R sbfd-RACH-DualConfig-r19 SBFD-RACH-DualConfig-r19 OPTIONAL, -- Need R}, |  |
| CATT004 | sbfd-RSRP-ThresholdMsg1-RepetitionNum2, sbfd-RSRP-ThresholdMsg1-RepetitionNum4, sbfd-RSRP-ThresholdMsg1-RepetitionNum8Threshold used by the UE for determining whether to select resources indicating Msg1 repetition number 2, 4 or 8 within the additional-ROs. | There is no definition of additional-ROs in this spec. Additional description is required to align with the description of ***rsrp-ThresholdMsg1-RepetitionNum2.*** Please take the description in to consideration:The value applies to RACH configurations in SBFD symbols. For a given MSG1 repetition number, ... It is absent otherwise. |  |
| CATT005 | sbfd-RSRP-ThresholdRO-Type-r19 RSRP-Range OPTIONAL, -- Need R sbfd-RSRP-ThresholdRO-TypeUsage-r19 ENUMERATED {above,below} OPTIONAL -- Need R | According to the agreement as below, RO type can be indicated directly to UE without threshold.* **For initial RA transmission, the network can indicate the RO type (legacy RO or additional RO) to the SBFD-aware UE for the case of CBRA. Detailed signalling is FFS.**
* **NW indicate via explicit signaling whether the SBFD RO is selected when SSB RSRP are 'below' or 'above' the configured threshold.**
 |  |
| CATT006 | *BWP-UplinkDedicated* information elementsbfd-Configuration2-Transmission-r19 Indicates that the PDSCH receptions can be in SBFD symbols and non-SBFD symbols in different slots for the dedicated UL BWP (see TS 38.213 [13], clause x and TS 38.214 [19], clause y).If not enabled, Configuration 1 is applied for PUCCH and PUSCH transmissions in the given UL BWP. sbfd-Configuration2-PUSCH-RBOffset-r19  | Should be:sbfd-Configuration2Transmission-r19 Indicates that the PUCCH and PUSCH transmissions can be in SBFD symbols and non-SBFD symbols in different slots for the dedicated UL BWP (see TS 38.213 [13], clause x and TS 38.214 [19], clause y). If not enabled, Configuration 1 is applied for PUCCH and PUSCH transmissions in the given UL BWP. Should be :sbfd-Configuration2PUSCH-RB-Offset-r19  |  |
| CATT007 | *CLI-RSSI-MeasurementResource* information elementCLI-RSSI-MeasurementResourceSet-r19 ::= SEQUENCE { cli-RSSI-MeasurementResourceId-r19 CLI-RSSI-MeasurementResourceId-r19 OPTIONAL, -- Need R startSymbol-r19 INTEGER (0..13) OPTIONAL, -- Need R nrofSymbols-r19 INTEGER (0..14) OPTIONAL, -- Need R startPRB-r19 INTEGER (0..maxNrofPhysicalResourceBlocks-1) OPTIONAL, -- Need R nrofPRBs-r19 INTEGER (1..maxNrofPhysicalResourceBlocks) OPTIONAL, -- Need R cli-RSSI-PeriodicityAndOffset-r19 CSI-ReportPeriodicityAndOffset OPTIONAL, -- Need R qclInfo-Periodic-CLI-RSSI-MeasurementResource-r19 TCI-StateId OPTIONAL, -- Need R ...} | CLI-RSSI-MeasurementResource~~Set~~-r19 ::= SEQUENCE { cli-RSSI-MeasurementResourceId-r19 CLI-RSSI-MeasurementResourceId-r19 OPTIONAL, -- Need R startSymbol-r19 INTEGER (0..13) OPTIONAL, -- Need R nrofSymbols-r19 INTEGER (~~0~~1..14) OPTIONAL, -- Need R startPRB-r19 INTEGER (0..maxNrofPhysicalResourceBlocks-1) OPTIONAL, -- Need R nrofPRBs-r19 INTEGER (1..maxNrofPhysicalResourceBlocks) OPTIONAL, -- Need R cli-RSSI-PeriodicityAndOffset-r19 CSI-ReportPeriodicityAndOffset OPTIONAL, -- Need RqclInfo-Periodic-CLI-RSSI-MeasurementResource-r19 TCI-StateId OPTIONAL, -- Need R ...} |  |
| CATT008 | ***qclInfo-Periodic-CLI-RSSI-MeasurementResource***Indicates a reference to one TCI-State in TCI-States for providing the QCL source and QCL type for a target periodic CLI-RSSI-MeasurementResource  | Indicates ~~a~~the reference to one TCI-State in TCI-States for providing the QCL source and QCL type for ~~a~~the target periodic CLI-RSSI-MeasurementResource |  |
| CATT009 | ***startSymbol***Indicates starting symbol of the *CLI-RSSI-MeasurementResource* within a slot | Indicates the starting symbol of the *CLI-RSSI-MeasurementResource* within a slot |  |
| CATT010 | *CLI-RSSI-MeasurementResourceSet* information elementcli-RSSI-MeasurementResourceIdList-r19 SEQUENCE (SIZE (1..maxNrofCLI-RSSI-MeasurementResourcesPerSet-r19) ) OF CLI-RSSI-MeasurementResourceSetId  | cli-RSSI-MeasurementResourceIdList-r19 SEQUENCE (SIZE (1..maxNrofCLI-RSSI-MeasurementResourcesPerSet-r19) ) OF CLI-RSSI-MeasurementResource~~Set~~Id  |  |
| CATT011 | *CSI-ResourceConfig* information elementcli-RSSI-MeasurementResourceSetList CHOICE { | cli-RSSI-MeasurementResourceSetList-r19 CHOICE { |  |
| CATT012 | *CSI-MeasConfig* information elementCLI-RSSI-MeasurementResourceList-r19 ::= SEQUENCE (SIZE (1..maxNrofCLI-RSSI-MeasurementResources-r19)) OF CLI-RSSI-MeasurementResource-r19CLI-RSSI-MeasurementResourceSetList-r19 ::= SEQUENCE (SIZE (1..maxNrofCLI-RSSI-MeasurementResourceSets-r19)) OF CLI-RSSI-MeasurementResourceSet-r19SRS-RSRP-MeasurementResourceList-r19 ::= SEQUENCE (SIZE (1..maxNrofSRS-RSRP-MeasurementResources-r19)) OF SRS-RSRP-MeasurementResource-r19SRS-RSRP-MeasurementResourceSetList-r19 ::= SEQUENCE (SIZE (1..maxNrofSRS-RSRP-MeasurementResourceSets-r19)) OF SRS-RSRP-MeasurementResourceSet-r19 | These codes seems not necessary |  |
| CATT013 | *sbfd-Configuration2-PUSCH-RBoffset-r19*  | sbfd-Configuration2PUSCH-RB-offset-r19  |  |
| CATT014 | ***resourcesForChannelCLI***Configures CLI measurement resource set and the list of corresponding references to TCI-States. If the parameter *resourcesForChannelCLI* is configured, the following legacy parameters should not be configured or should be ignored:*resourcesForChannel,* *csi-IM-ResourcesForInterference,* *nzp-CSI-RS-ResourcesForInterference,**resourcesForChannel2-r17,**resourcesForChannelTDCP-r18,**applyIndicatedTCI-State-r18,**csi-ReportSubConfigTriggerList-r18.* | -r17 or –r18 will be removed in Field description |  |
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