SBFD Comments file

Template:

# C100

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C100 | SBFD | 1 | Concern on ‘CFRA’ |  | Jianxiang Li (CATT) |  | V005 |  |

**[Description]**: For BFR, if there is a beam associated to a dedicated preamble/PRACH and above the threshold, using CFRA；Otherwise, using CBRA. If there is no suitable beam, this RO type can also be used for CBRA BFR. I’m wondering if the CFRA is required in ‘Indicates the second PRACH occasions of CFRA to be used by a SBFD aware UE’.

**[Proposed Change]**: remove ‘of CFRA’.

**[Comments]**: [ZTE] Agree with the intention. But ‘CFRA’ here is to explicitly reflect RAN2 agreement, so ‘CFRA’ should be kept here. Two alternatives of change: (1) RRC spec does not change, the RAN2 agreement‘SBFD-aware UE uses the CBRA resource with same RO type as indicated in CFRA resource when fallback from CFRA to CBRA is performed, when the RACH resources for the same RO type is provided for CBRA’ should be captured/reflected somewhere in MAC spec; (2) change the RRC field description to ‘Indicates the second PRACH occasions of CFRA or of the fallback CBRA to be used by a SBFD aware UE’

[LGE] In our understanding, it was intentionally added to consider the case that no CFRA resource is configured for BFR (e.g., only configuring RA prioritization parameters); in this case, the UE initiates the CBRA procedure and RO type should not be indicated by this field. However, given that the initial RO type selection procedure in MAC is now sepately described for the CFRA cases and CBRA cases, it would be clear in MAC spec enough even though ‘for CFRA’ is removed. In this sense, we are okay to remove the ‘for CFRA’ or ZTE’s alternative (2) to specify the fallback case from CFRA to CBRA.

# O000

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| O000 | SBFD, MOB | 2 | Applicability of SBFD-RACH to LTM procedure | R2-25xxxxx | OPPO (Qianxi) |  | V003 | ToDo |

**[Description]**: R2 has not concluded the applicability of SBFD to LTM (other than inter-DU LTM), including the procedure for early UL sync, LTM execution (CSC-based) and CLTM execution.

**[Proposed Change]**: R2 discuss and conclude the applicability of SBFD to LTM (other than inter-DU LTM), including the procedure for early UL sync, LTM execution (CSC-based) and CLTM execution.

**[Comments]**:

# C101

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C101 | SBFD | 1 | Reference |  | Jianxiang Li (CATT) |  | V005 |  |

**[Description]**: reference is required for the first PRACH occasions or the second PRACH occasions.

**[Proposed Change]**: add ‘as specified in TS 38.213 [13]’

**[Comments]**:

# C102

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C102 | SBFD | 1 | RACH occasion type |  | Jianxiang Li (CATT) |  | V005 |  |

**[Description]**: what is RACH occasion type is required to clarify here. It applies to other same issue in the CR.

**[Proposed Change]**: RACH occasion type (the first or the second RACH occasion as specified in TS 38.213 [13]

**[Comments]**:

# C103

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C103 | SBFD | 1 | reference |  | Jianxiang Li (CATT) |  | V005 |  |

**[Description]**: reference is required for the first PRACH occasions or the second PRACH occasions. It applies to other same issue in the CR.

**[Proposed Change]**: add ‘as specified in TS 38.213 [13]’

**[Comments]**:

# O003

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| O003 | SBFD, NES | 2 | Applicability of NES related RACH parameters | R2-25xxxxx | OPPO (Qianxi) |  | V003 | ToDo |

**[Description]**: NES introduced parameters for additional RACH (addlRACH-Config-Adapt-r19) within RACH-ConfigCommon, it is unclear whether it is applicable to the case when SBFD RACH is configured, for both cases of *sbfd-RACH-SingleConfig-r19* and *sbfd-RACH-DualConfig-r19*.

**[Proposed Change]**: R2 discuss and conclude the applicability of NES additional RACH (addlRACH-Config-Adapt-r19) within RACH-ConfigCommon, to the case when SBFD RACH is configured, for both cases of *sbfd-RACH-SingleConfig-r19* and *sbfd-RACH-DualConfig-r19*.

**[Comments]**:

# H350

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H350 | SBFD | 1 | Revision of value range | - | Huawei-Tao Cai |  | V004 | ToDo |

**[Description]**: According to RAN1 updated higher layer parameters list in R1-2506622, the range of parameter *sbfd-Config2-PUSCH-RB-Offset-r19* shall be (0..maxNrofPhysicalResourceBlocks-1) not (0..maxNrofPhysicalResourceBlocks)

**[Proposed Change]**: Change the parameter range according to RAN1 revision.

**[Comments]**:

# H351

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H351 | SBFD | 1 | Revision of value range | - | Huawei-Tao Cai |  | V004 | ToDo |

**[Description]**: According to RAN1 updated higher layer parameters list in R1-2506622, the range of parameter *sbfd-Config2-PUSCH-RB-Offset-r19* shall be (0..maxNrofPhysicalResourceBlocks-1) not (0..maxNrofPhysicalResourceBlocks)

**[Proposed Change]**: Change the parameter range according to RAN1 revision.

**[Comments]**:

# H352

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H352 | SBFD | 1 | missing "optional" tag | - | Huawei-Tao Cai |  | V004 | ToDo |

**[Description]**: There is no optionality tag for field *resourcesForChannelCLI-r19* (which makes it mandotory). gNB has to configure *resourcesForChannelCLI-r19)* with at least an empty *resourcesForChannelCLI-r19* which would bea waste of signalling (its elements *resourceSetCLI-r19* and *qcl-infoCLI-r19* are optional).

**[Proposed Change]**: Add "Optional Need R" for field *resourcesForChannelCLI-r19*.

# C104

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C104 | SBFD | 1 | Concern on ‘for CFRA’ |  | Jianxiang Li (CATT) |  | V005 |  |

**[Description]**: If is RACH is triggered by RACH-ConfigDedicated, it may also be CBRA if the preamble index is set to 0b000000. In this case, the ra-OccasionType is also valid. Hence, it is suggested to remove “for CFRA”.

**[Proposed Change]**: remove ‘for CFRA’.

**[Comments]**: [ZTE] Same comment as C100

[LGE] In our understanding, it was intentionally added to consider the case that no CFRA resource is configured in RACH-ConfigDedicated IE; in this case, the UE initiates the CBRA procedure and RO type should not be indicated by this field as ZTE mentioned. However, given that the initial RO type selection procedure in MAC is now sepately described for the CFRA cases and CBRA cases, it would be clear in MAC spec enough even though ‘for CFRA’ is removed. In this sense, we are okay to remove the ‘for CFRA’ or ZTE’s alternative (2) to specify the fallback case from CFRA to CBRA.

# Z351

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z351 | SBFD | 1 | SBFD RACH configuration type, option 1 |  | Yu Pan (ZTE) |  | V006 |  |

**[Description]**: Currently *sbfd-RACH-SingleConfig* is configured per UL BWP, not per RACH configuration in the UL BWP (i.e., *sbfd-RACH-SingleConfig* is not configured under *AdditionalRACH-Config-r17*). But if option 1 is enabled, all the RACH configuration under this UL BWP should enable option 1.

**[Proposed Change]**: In field description of *sbfd-RACH-Config*, add the underline wording: ‘Value *sbfd-RACH-SingleConfig* indicates the single RACH configuration for SBFD random access operation which is appliable to all RACH configurations in this BWP is enabled’

**[Comments]**:

# Z352

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z352 | SBFD | 1 | Need code for sbfd-RSRP-ThresholdRO-Type |  | Yu Pan (ZTE) |  | V006 |  |

**[Description]**: Currently the *sbfd-RSRP-ThresholdRO-Type* is Need S, but the absent behaviour is described in *sbfd-RSRP-ThresholdRO-TypeUsage*.

**[Proposed Change]**: two alternatives: (1) change *sbfd-RSRP-ThresholdRO-Type* from Need S to Need M; (2) add absent behaviour in the field description of *sbfd-RSRP-ThresholdRO-Type*

**[Comments]**:

# Z353

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z353 | SBFD | 1 | FD of sbfd-RACH-DualConfig-ValidRO-AcrossSymbolTypes |  | Yu Pan (ZTE) |  | V006 |  |

**[Description]**: In the FD of sbfd-RACH-DualConfig-ValidRO-AcrossSymbolTypes, the ‘RACH configuration option 2’ should be avoided in spec.

**[Proposed Change]**: Change the FD to ‘Indicates whether a configured RO starting from SBFD symbol and ending in non-SBFD symbol either in the same slot or across different slots is valid for ~~RACH configuration Option 2~~the corresponding *sbfd-AdditionalRACH-Config*’

**[Comments]**:

# Z354

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z354 | SBFD | 1 | Description of CLI-RSSI-MeasResourceId |  | Yu Pan (ZTE) |  | V006 |  |

**[Description]**: In the description of CLI-RSSI-MeasResourceId, The IE *CLI-RSSI-MeasResourceId* should be used to identify a *CLI-RSSI-MeasResource*, not a *CLI-RSSI-MeasResourceSet*

**[Proposed Change]**: Change the description to ‘The IE *CLI-RSSI-MeasResourceId* is used to identify a *CLI-RSSI-MeasResource~~Set~~*’

**[Comments]**:

# Z355

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z355 | SBFD | 1 | FD of resourceSetCLI |  | Yu Pan (ZTE) |  | V006 |  |

**[Description]**: In the FD of resourceSetCLI, ‘Entry number in *cli-MeasurementResourceSetList* in the *CSI-ResourceConfig* indicated by *resourcesForChannelMeasurement* in the *CSI-ReportConfig* indicated by *reportConfigId* above (value 1 corresponds to the first entry, value 2 to the second entry, and so on)’ the IE name is incorrect,and the sentence lacks verb

**[Proposed Change]**: Change the description to ‘This field refers to the entry number in*~~cli-MeasurementResourceSetList~~ cli-MeasResourceSetList* in the *CSI-ResourceConfig* indicated by *resourcesForChannelMeasurement* in the *CSI-ReportConfig* indicated by *reportConfigId* above (value 1 corresponds to the first entry, value 2 to the second entry, and so on)’

**[Comments]**:

# Z356

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z356 | SBFD | 2 | MIMOParam-v19xy |  | Yu Pan (ZTE) |  | V006 |  |

**[Description]**: Q1: RAN1’s parameter list only indicates the separate p0AlphaSet in single TRP scenario. And RAN1#119 has conclusion that ‘there is no RAN1 consensus to support mTRP scrnario for SBFD in Rel-19’ . So why to capture such list via MIMOParam-v19xy in SBFD WI? Q2: For MIMOParam-v19xy, the son IE additionalUplinkPowerControlToAddModList-r19 does not have field description.

**[Proposed Change]**: Remove the *MIMOParam-v19xy*; If not, to add field description.

**[Comments]**:

# L701

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| L701 | SBFD | 1 | Whether to locate the *rach-ConfigCommon* and *sbfd-RACH-DualConfig* for the same feature combination in the same *additionalRACH-Config*. |  | LGE (Hanseul Hong) |  | V008 |  |

**[Description]**: In the RACH partitioning framework, when the 2-step RA resources and the 4-step RA resources are configured for the same feature combination, those two IEs are located in the same additionalRACH-Config IE, in order to simplify the UE implementation to identify the RA parameters associated with the same feature combination.

|  |
| --- |
| ***additionalRACH-ConfigList***  List of feature or feature combination-specific RACH configurations, i.e. the RACH configurations configured in addition to the one configured by *rach-ConfigCommon* and by *msgA-ConfigCommon*. The network associates all possible preambles of an additional RACH configuration to one or more feature(s) or feature combination(s). The network does not configure this list to have more than 16 entries. If both *rach-ConfigCommon* and *msgA-ConfigCommon* are configured for a specific *FeatureCombination*, the network always provides them in the same *additionalRACH-Config*. |

Since the SBFD RO (second PRACH occasion) defined in *sbfd-RACH-DualConfig* can also be associated with the feature combination and located in *additionalRACH-Config* IE, it should be discussed *sbfd-RACH-DualConfig* should be located in the same *additionalRACH-Config* with the non-SBFD RO (i.e., *rach-ConfigCommon*) for the same feature combination, in order to simplify the UE to determine the corresponding RA parameters (e.g., for the RO type switch case) as well.

**[Proposed Change]**: Discuss whether network needs to configure *rach-ConfigCommon* and *sbfd-RACH-DualConfig* in the same *additionalRACH-Config*, when the both *rach-ConfigCommon* and sbfd-RACH-DualConfig are configured for a specific *FeatureCombination*. If so, following text can be added:

|  |
| --- |
| ***additionalRACH-ConfigList***  List of feature or feature combination-specific RACH configurations, i.e. the RACH configurations configured in addition to the one configured by *rach-ConfigCommon* and by *msgA-ConfigCommon*. The network associates all possible preambles of an additional RACH configuration to one or more feature(s) or feature combination(s). The network does not configure this list to have more than 16 entries. If both *rach-ConfigCommon* and *msgA-ConfigCommon* are configured for a specific *FeatureCombination*, the network always provides them in the same *additionalRACH-Config*. If both *rach-ConfigCommon* and *sbfd-RACH-DualConfig* are configured for a specific *FeatureCombination*, the network always provides them in the same *additionalRACH-Config*. |

**[Comments]**:

# L702

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| L702 | SBFD | 1 | SBFD RO in the field description of *sbfd-RACH-Config* |  | LGE (Hanseul Hong) |  | V008 |  |

**[Description]**: In the current specification, SBFD RO is not used, but the second PRACH occasions is used.

**[Proposed Change]**: Change ‘SBFD RO’ to ‘second PRACH occasions’ in the field description of *sbfd-RACH-Config*. Further editorial change can be considered, e.g.,

|  |
| --- |
| ***sbfd-RACH-Config***  Indicated SBFD RACH configuration type, see clause 5 in TS 38.211 [16] and clause 8 in TS 38.213 [13]. Value *sbfd-RACH-SingleConfig* indicates the single RACH configuration for SBFD random access operation is enabled[RIL]: Z351, SBFD, and value *sbfd-RACH-DualConfig* is used to configure dual RACH configurations and configure random access parameters in SBFD symbols by setting up one additional RACH configuration and can include all parameters in *rach-ConfigCommon* except *rsrp-ThresholdSSB-SUL*. If present and the UE is indicated to use SBFD random access operation for CFRA in the same BWP, the UE shall derive locations of the second PRACH occasions based on this field. |

**[Comments]**:

# L703

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| L703 | SBFD | 1 | ToReleaseList for additionalUplinkPowerControl |  | LGE (Hanseul Hong) |  | V008 |  |

**[Description]**: In MIMOParam-v19xy, two paraemeters are defined for separated UL power control parameters in SBFD symbol.

MIMOParam-v19xy[RIL]:Z356, SBFD ::= SEQUENCE {

additionalUplinkPowerControlToAddModList-r19 SEQUENCE (SIZE (1..maxUL-TCI-r17)) OF Uplink-powerControlExt-v19xy OPTIONAL, -- Need N

additionalUplinkPowerControlToReleaseList-r19 SEQUENCE (SIZE (1..maxUL-TCI-r17)) OF Uplink-powerControlId-r17 OPTIONAL, -- Need N

...

}

Note that Uplink-powerControlExt-v19xy does not contain separated Uplink Power Control ID field.

Uplink-powerControlExt-v19xy ::= SEQUENCE {

p0AlphaSetforPUSCH-SBFD-r19 P0AlphaSet-r17 OPTIONAL, -- Need R

p0AlphaSetforPUCCH-SBFD-r19 P0AlphaSet-r17 OPTIONAL, -- Need R

p0AlphaSetforSRS-SBFD-r19 P0AlphaSet-r17 OPTIONAL -- Need R

}

However, there are separated additionalUplinkPowerControlToReleaseList for additional UL power control indicating only the Uplink-powerControlId-r17, even though there is no Uplink Power Control ID for separated UL power control in SBFD symbol.

**[Proposed Change]**: There are two alternatives and Alt 1 seems more straightforward:

Alt 1) remove the release list for the separated UL power control in SBFD symbol, and follow the existing uplink-PowerControlToReleaseList-r17 defined in MIMOParam-r17

MIMOParam-v19xy[RIL]:Z356, SBFD ::= SEQUENCE {

additionalUplinkPowerControlToAddModList-r19 SEQUENCE (SIZE (1..maxUL-TCI-r17)) OF Uplink-powerControlExt-v19xy OPTIONAL, -- Need N

...

}

Alt 2) define separated Uplink power control ID in Uplink-powerControlExt-v19xy to separately release the additional UL control prarameter in SBFD symbol.

Uplink-powerControlExt-v19xy ::= SEQUENCE {

ul-powercontrolId-r17 Uplink-powerControlId-r17,

p0AlphaSetforPUSCH-SBFD-r19 P0AlphaSet-r17 OPTIONAL, -- Need R

p0AlphaSetforPUCCH-SBFD-r19 P0AlphaSet-r17 OPTIONAL, -- Need R

p0AlphaSetforSRS-SBFD-r19 P0AlphaSet-r17 OPTIONAL -- Need R

}

**[Comments]**:

# E001

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| E001 | SBFD | 1 | Update FD for field *sbfd-RACH-Config.* |  | Ericsson (Min) |  | V009 |  |

**[Description]**: *wording/formulation of the FD* can be improved

**[Proposed Change]**:

“value *sbfd-RACH-DualConfig* is used to configure dual RACH configurations and configure random access parameters in SBFD symbols by setting up one additional RACH configuration and can include all parameters in *rach-ConfigCommon* except *rsrp-ThresholdSSB-SUL*. If present and the UE is indicated to use SBFD random access operation for CFRA in the same BWP, the UE shall derive the SBFD RO locations based on this field.”

can be reformulated as

*“Value sbfd-RACH-DualConfig indicates dual RACH configurations for SBFD random access operation are enabled wherein parameters for random access operation in the first PRACH occasions are configured in rach-ConfigCommon and parameters for random access operation in the second PRACH occasions are configured in sbfd-RACH-DualConfig. If present, the UE drvies PRACH occasions for CFRA based on this field”*

**[Comments]**:

# E002

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| E002 | SBFD | 1 | Definition for the term “SBFD aware UE” is missing. |  | Ericsson (Min) |  | V009 |  |

**[Description]**: Definition for the term “SBFD aware UE” is missing.

**[Proposed Change]**:

Either add a definition for the term, or refer to RAN1 spec if there is definition, or just remove it.

**[Comments]**:

# E003

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| E003 | SBFD | 1 | Term “RACH configuration option 2” is undefined |  | Ericsson (Min) |  | V009 |  |

**[Description]**: FD for field *sbfd-RACH-DualConfig-ValidRO-AcrossSymbolTypes refers to “RACH configuration option 2”, this term is defined nowhere.*

[Proposed Change]:

This term can be just removed from the text.

**[Comments]**:

# E004

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| E003 | SBFD | 1 | Unclear FD for *sbfd-AdditionalRACH-Config* |  | Ericsson (Min) |  | V009 |  |

**[Description]**: Change FD for ***sbfd-AdditionalRACH-Config.*** The FD says

Indicates the configuration of dual RACH configurations by setting up one additional RACH configuration

[Proposed Change]:

Update the FD as “indicate the additional RACH configuration for random access operation in the second PRACH occasions. “

**[Comments]**:

Instructions:

1. Copy the template RIL comments fields above (including the Heading Xnnn)
2. Paste the RIL comments fields at its position while **respecting the order of the RILs in the Review file (i.e. keep the order of the spec).**
3. Fill in the fields, see R19 ASN.1 Guideline.
4. Companies may comment whether they agree or disagree.
5. Can copy spec text and use Word “Track changes”, etc.
6. Do not delete text added by other companies.