AIML Comments file

Template:

# Xnnn

|  |  |  |  |  |  |  |  |  |
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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Xnnn |  |  |  |  |  |  | vnnn | ToDo |

**[Description]**:

**[Proposed Change]**:

**[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.

# N031

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Nxxx | AIML | 1 | Circular definition of applicable AI/ML configuration | N/A | Jerediah Fevold |  | vnnn | ToDo |

**[Description]**: The definition of applicable AI/ML configuration is circular and does not provide insight into the purpose. We also have not defined the term “functionality”, so it should not be used here.

**[Proposed Change]**:

**Applicable AI/ML configuration: AI/ML-enabled** configuration which has been determined to be executable by the UE, as defined in TS 38.300 [2].

**[Comments]**:

[WI CR rapporteur-v022]: Deleting this definition altogether is an alternative which has been raised as a class 0 issue (in “NR Rel-19 ASN1 Editorials”), since 38.331 does not use this term. We think it should be discussed within the scope of this RIL.

# C071

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C071 | AIML | 2 | Cond Sync |  | Tangxun |  | V003 | PropAgree |

**[Description]**: “retainLoggedMeasurements-r19” can only be configured for UE in case of handover. So a conditional presence should be added.

**[Proposed Change]**: add conditional presence “Cond Sync” for “retainLoggedMeasurements-r19” as below:

RRCReconfiguration-v19xy-IEs ::= SEQUENCE {

otherConfig-v19xy OtherConfig-v19xy OPTIONAL, -- Need M

retainLoggedMeasurements-r19 ENUMERATED {true} OPTIONAL, -- Cond Sync

nonCriticalExtension SEQUENCE {} OPTIONAL

}

|  |  |
| --- | --- |
| Conditional Presence | Explanation |
| *Sync* | The field is optionally present, Need N, upon reconfiguration with *reconfigurationWithSync*. It is absent otherwise. |

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# C072

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C072 | AIML | 1 | “UE-side data collection” wording |  | Tangxun |  | V003 | PropAgree |

**[Description]**: “UE data collection” should be changed to “UE-side data collection” for unified wording.

**[Proposed Change]**: update the procedural text as below:

2> if *dataCollectionPreferenceConfig* is set to *setup*:

3> consider itself to be configured to provide its preference on being configured with radio measurement resources for UE-side data collection in accordance with 5.7.4;

**[Comments]**:

[WI CR rapporteur-v020]: We changed the status from “ToDo” to “PropAgree”.

# B200

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| B200 | AIML | 1 | Missing of crossing reference to 5.7.4 |  | Congchi Zhang |  | V011 | PropReject |

**[Description]**: The reference to 5.7.4 “not to be configured to report applicability info….. in accordance with 5.7.4;” is missing in some procedure description.

1> if the received *otherConfig* includes *applicabilityReportConfig*:

…

2> else:

3> consider itself not to be configured to report applicability information of configurations subject to the applicability determination procedure in accordance with 5.7.4;

1> if the received *otherConfig* includes *dataCollectionPreferenceConfig*:

…

2> else:

3> consider itself not to be configured to provide its preference on being configured with radio measurement resources for UE data collection [Missing];

…

2> else:

3> consider itself not to be configured to report assistance information related to logging of radio measurements for network-side data collection [Missing].

**[Proposed Change]**:

1> if the received *otherConfig* includes *dataCollectionPreferenceConfig*:

…

2> else:

3> consider itself not to be configured to provide its preference on being configured with radio measurement resources for UE data collection in accordance with 5.7.4;

…

2> else:

3> consider itself not to be configured to report assistance information related to logging of radio measurements for network-side data collection in accordance with 5.7.4.

**[Comments]**:

[WI CR rapporteur-v022]: The proposed changes are not needed and not aligned with the procedural text for legacy configurations. The text “in accordance with 5.7.4” is typically used in legacy only for the branches that start with “consider itself to be configured” and not for the branches that start with “consider itself not to be configured”. The reason to make an exception for “3> consider itself not to be configured to report applicability information of configurations subject to the applicability determination procedure in accordance with 5.7.4;” is that the UE will still report applicability information in RRCReconfigurationComplete, but not in the UAI according to 5.7.4. For the other two cases the reporting can only be done in UAI anyway, so it’s not needed to mention the clause number.

# C073

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C073 | AIML | 1 | CSI logged measurement configuration |  | Tangxun |  | V003 | ToDo |

**[Description]**: “*CSI-LoggedMeasurementConfig*” is an IE name, but not the configuration to release.

**[Proposed Change]**: update the procedural text as below:

2> release CSI logged measurement configuration, if configured;

**[Comments]**:

[Lenovo-Congchi-v011]: no strong view, but it should be “release any CSI logged measurement configuration, if configured” since there could be multiple.

[Ericsson-v022]: We agree with the issue, and we propose further small changes for clarity.

2> release any CSI logged measurement configuration included in *csi-LoggedMeasurementConfigToAddModList*, if configured;

[Samsung-Beom-v028]: *csi-LoggedMeasurementConfigToAddModList* is the field name for NW-side data collection configuration. A field name of a certain configuration could be referred upon reception of the configuration. However, it should not be reffered in the other cases, as UE does not have to store the field name as UE configuration. We understand that is the principle RRC spec generally follows. There are several spots to refer to “*csi-LoggedMeasurementConfigToAddModList*”. We are okay to keep the text in 5.3.5.5, 5.5x.1 (i.e., upon reception ofconfiguration), but we suggest not refering “*csi-LoggedMeasurementConfigToAddModList*” but using “CSI logged measurement configuration” simply in other places (i.e., 5.5.4, 5.5x.3.2)

And, we support C073 or Lenovo’s update.

# C074

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C074 | AIML | 1 | Duplicate release/discard UE behaviour |  | Tangxun |  | V003 | ToDo |

**[Description]**: in case of MCG RLF, UE will initiate RRC re-establishment procedure, and the CSI logged measurement configuration will also be released due to “2> release *spCellConfig*, if configured;”, as it’s a part of *spCellConfig*. For the similar reason, it’s also unnecessary to add duplicate description of “release *loggedDataCollectionAssistanceConfig*,” and “discard the logged measurement entries”, since the same contents have been added in RRC re-establishment procedure.

**[Proposed Change]**: update the procedural text as below:

3> else:

4> consider radio link failure to be detected for the MCG, i.e. MCG RLF;

4> discard any segments of segmented RRC messages stored according to 5.7.6.3;

**[Comments]**:

[Huawei-Dawid-v004] Agree with CATT’s comment and proposal. During the CR review, rapporteur mentioned MCG failure case. However, this case results in MCG recovery procedure being triggered which can result in the following outcome:

Connection release 🡪 configuration and data discard is already covered in a dedicated section

Handover 🡪 already covered in a dedicated section

Re-establishment 🡪 already covered in a dedicated section

[Lenovo-Congchi-v011]: Also agree with CATT

[Xiaomi-Xing-v012]: We also suppor to delete these parts. If UE is configured with CHO, UE may perform CHO recovery successfully. Therefore, UE should not release UAI and data logging configuration upon RLF.

[Samsung-Beom-v028]: Agree

# N032

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N032 | AIML | 1 | Incorrect mapping of thresh in Section 5.5.4.2 and 5.5.4.3, Event A1 and Event A2, respectively, to the threshold in csi-LoggedMeasurementEventTriggerConfig | N/A | Jerediah Fevold |  | vnnn | PropAgree |

**[Description]**: The mapping of threshold is not complete. The mapping should be to *aboveThreshold-r19* since *threshold-r19* includes above and below, but both do not apply.

**[Proposed Change]**:

5.5.4.2

***Thresh*** is the threshold parameter for this event (i.e. *a1-Threshold* as defined within *reportConfigNR* for this event, or *aboveThreshold* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

5.5.4.3

***Thresh*** is the threshold parameter for this event (i.e. *a2-Threshold* as defined within *reportConfigNR* for this event, or *belowThreshold* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

Related ASN.1

threshold-r19 CHOICE {

aboveThreshold-r19 MeasTriggerQuantity,

belowThreshold-r19 MeasTriggerQuantity

},

**[Comments]**:

[WI CR rapporteur-v022]: We think both the current and proposed solutions work fine. We can include the proposed change and we changed the status from “ToDo” to “PropAgree”.

# C075

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C075 | AIML | 1 | ARFCN and PCI |  | Tangxun |  | V003 | ToDo |

**[Description]**: “ARFCN and PCI” should be replaced by “physical cell identity and carrier frequency”.

**[Proposed Change]**: update the procedural text as below:

3> set *cellId* to the CGI of the serving cell associated with the serving cell configuration in which *csi-LoggedMeasurementConfigToAddModList* is received, if available. If the CGI is not available for that cell, set *cellId* to the physical cell identity and carrier frequency of the serving cell;

**[Comments]**:

[Ericsson-v022]: We agree with the intention of the proposal and we think also “CGI” should be updated, to be aligned with legacy cases, as follows:

3> set *cellId* to the global cell identity, if available, otherwise to the physical cell identity and carrier frequency of the serving cell associated with the serving cell configuration in which *csi-LoggedMeasurementConfigToAddModList* is received;

# B201

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| B201 | AIML | 1 | Terminlogy buffer vs. memory |  | Congchi Zhang |  | V011 | PropAgree |

**[Description]**: Mixed use of “memory” and “buffer”

As raised also over email, we have been using "buffer" during our WI discussion. On the other hand, when it comes to spec terminology w.r.t logging, we notice the term "memory" is actually used in MDT/QoE description. In legacy, “buffer” is normally used when it’s relevant to a protocol layer operation.

Using “access stratum buffer” is another option, but since we already have “memory” in legacy spec..

**[Proposed Change]**:

Overall, to be precise and consistent with legacy spec wording, suggest to use “memory” instead of “buffer” when it’s relevant to data collection, although it will impact quite many places.

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# B202

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| B202 | AIML | 1 | Trigger UAI upon applicability change since last report |  | Congchi Zhang |  | V011 | PropReject |

**[Description]**:

The UAI is trigger if the applicability changes since the last report.

**[Proposed Change]**:

A UE capable of providing assistance information related to the applicability of configurations subject to the applicability determination procedure may initiate the procedure in several cases, including upon being configured to report assistance information about the applicability of configurations subject to the applicability determination procedure and upon change of the applicability of the configurations subject to the applicability determination procedure since the last transmission of a message containing applicabilityReportList (either RRCReconfigurationComplete or UEAssistanceInformation). A UE capable of providing assistance information related to the applicability of configurations subject to the applicability determination procedure shall initiate the procedure if it was configured to do so, upon determining that the applicability of a configuration subject to the applicability determination procedure changed from applicable to inapplicable since the last transmission of a message containing applicabilityReportList (either RRCReconfigurationComplete or UEAssistanceInformation).

**[Comments]**:

[WI CR rapporteur-v022]: We think the proposed change is not needed, since the same text as the one suggested to be added is captured later in the same clause (5.7.4.2):

1> if configured to report assistance information about the applicability of configurations subject to the applicability determination procedure:

2> if the applicability status of configurations subject to the applicability determination procedure has changed since the last transmission of a message containing *applicabilityReportList* (either in *RRCReconfigurationComplete* or in *UEAssistanceInformation*):

3> initiate transmission of the *UEAssistanceInformation* message in accordance with 5.7.4.3 to report assistance information about the applicability of configurations subject to the applicability determination procedure;

# E039

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| E039 | AIML | 1 | Update UAI procedural text for UE-side data collection in 5.7.4.2 to match corresponding capability |  | Ericsson (Andra) |  | V022 | ToDo |

**[Description]**: The following procedural text in clause 5.7.4.2 for UE-side data collection should be aligned with the capability description for UE-side data collection, once this is finalized.

“A UE capable of providing its preference to be configured with or stop being configured with radio resources to perform UE-side data collection may initiate the procedure if it was configured to do so, upon determining that it would like to perform UE-side data collection, or upon determining a list of preferred radio resource configurations for UE-side data collection, or upon determining a list of radio resource configurations for which it prefers to stop UE-side data collection.”

**[Proposed Change]**: There is no concrete change yet. This needs to be checked again once the capability for UE-side data collection is finalized.

**[Comments]**:

# N034

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N034 | AIML | 2 | Incorrect field referenced in applicability reporting procedure | N/A | Jerediah Fevold |  | vnnn | PropAgree |

**[Description]**: Incorrect field names are referenced in the applicability reporting procedure.

**[Proposed Change]**:

3> if the associated serving cell index was included in an entry in *applicabilityConfigList* within *applicabilityReportConfig* and the applicability status for at least one of the associated entries in *applicabilitySetConfigList* has changed:

4> include an entry in *applicabilityReportList* in the *UEAssistanceInformation* message, and set the content as follows:

5> set the *applicabilityCellId* to the serving cell index of the cell;

5> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*, for which the applicability status has changed:

6> include an entry in the *applicabilityInfoReportList* and set the content as follows:

7> set the *csi-ReportConfigId* within *applicabilityInfoReport* to the corresponding *reportConfigId*;

7> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityInfoReportId*;

7> if the *applicabilityStatus* is set to *inapplicable*:

8> if the UE prefers to release the concerned *CSI-ReportConfig*, include *releaseConfigurationPreference*;

5> for each entry within *applicabilitySetConfigList* that changed applicability status, associated with the concerned serving cell:

6> include an entry in the *applicabilityInfoReportList* and set the content as follows:

7> set the *applicabilitySetId* within *applicabilityReportConfigId* to the corresponding *applicabilitySetConfigId*;

7> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityInfoReport*;

7> if the *applicabilityStatus* is set to inapplicable:

8> if the UE prefers to release the concerned *ApplicabilitySetConfig*, include *releaseConfigurationPreference*;

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# C076

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C076 | AIML | 1 | Wrong field name |  | Tangxun |  | V003 | Duplicate |

**[Description]**: “*applicabilityReportConfigIdList*” should be replaced by “applicabilityInfoReportList”.

**[Proposed Change]**: update the procedural text as below:

5> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*, for which the applicability status has changed:

6> include an entry in the *applicabilityInfoReportList* and set the content as follows:

7> set the *csi-ReportConfigId* within *applicabilityReportConfigId* to the corresponding *reportConfigId*;

7> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityReportConfigId*;

7> if the *applicabilityStatus* is set to *inapplicable*:

8> if the UE prefers to release the concerned *CSI-ReportConfig*, include *releaseConfigurationPreference*;

5> for each entry within *applicabilitySetConfigList* that changed applicability status, associated with the concerned serving cell:

6> include an entry in the *applicabilityInfoReportList* and set the content as follows:

**[Comments]**:

[WI CR rapporteur-v022]: Duplicate of RIL N034.

# C077

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C077 | AIML | 1 | Undefined *applicabilityReportConfigId* |  | Tangxun |  | V003 | PropAgree |

**[Description]**: “*applicabilityReportConfigId*” has been used in 5 places, but this parameter is not defined. Actually it should be replaced by “*applicabilityInfoReportId*”.

**[Proposed Change]**: update the procedural text as below (also in other places):

7> set the *applicabilitySetId* within *applicabilityInfoReportId* to the corresponding *applicabilitySetConfigId*;

7> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityInfoReportId*;

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# E040

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| E040 | AIML | 2 | Ensure that UE does not request a candidate UE-side data collection configuration for which it already has a UE-side data collection configuration | R2-25xxxx | Ericsson (Andra) |  | V022 | ToDo |

**[Description]**: According to the current procedural text in 5.7.4.3, the UE may request a candidate UE-side data collection configuration in UAI (received in *otherConfig*), even if it already has a corresponding UE-side data collection configuration (received in *CSI-ReportConfig*) for that candidate configuration. This is not a desired behaviour and it should be fixed.

**[Proposed Change]**: The issue and some possible solutions will be discussed in more detail in a Tdoc. Some possible solutions are:

change only the procedural text to make it clear that the UE does not request candidate configurations for which it already has a corresponding UE-side data collection configuration;

change the ASN.1 (and corresponding procedures) so the network can indicate which candidate configuration a real UE-side data collection configuration corresponds to.

**[Comments]**:

# N033

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N033 | AIML | 2 | NW-side DC log request should not be datatype specific. | N/A | Jerediah Fevold |  | vnnn | ToDo |

**[Description]**: Related to N024, N025, and N026. The field for requesting the NW-side data collection log should not be specific to a datatype as the buffer is generic. It is reasonable to keep the logs separated by datatype as long as the request and the indication of more data are generic. The consequence of leaving the requests, responses, and indications of further data specific to a datatype is that it will be unclear how to handle the generic buffer behavior. Right now, we have a single indication for buffer full, buffer and threshold reached. When we have more datatypes for collection, it could easily be that each individually do not reach the threshold, but the two together do. Then, the gNB would start to empty the buffer, perhaps for the first datatype. Then, the buffer threshold would no longer be met and the message containing the first datatype would not have the proper indicator to indicate that more data is available since it would be datatype specific.

**[Proposed Change]**:

1> if the *nw-DC-LogMeasReportReq* is present:

2> if *VarCSI-LogMeasReport* includes one or more logged measurement entries, set the contents of the *csi-LogMeasReport* in the *UEInformationResponse* message as follows:

3> include the *csi-LogMeasInfoCellList* and set it to include one or more entries from the *VarCSI-LogMeasReport* starting from the entries logged first;

3> if the *VarCSI-LogMeasReport* includes one or more additional logged measurement entries that are not included within the *UEInformationResponse* message:

4> include the *csi-MoreLogMeasAvailable*;

<cut for brevity>

1> else if *nw-DC-LogMeasReport* is included in the *UEInformationResponse*:

2> submit the *UEInformationResponse* message to lower layers for transmission via SRBX;

2> discard the logged measurement entries included in the *csi-LogMeasInfoList* from *VarCSI-LogMeasReport* upon successful delivery of the *UEInformationResponse* message confirmed by lower layers;

**[Comments]**:

[Lenovo-Congchi-v011]: we don’t agree with Nokia. We believe the current implementation is fine. It is also future proof considering we may have new UE variable defined in Rel20 for AI mobility. We can easily add similar flag to support new measurement types. Besides, DC usually refers to dual connectivity.

[Huawei-Dawid-v017]: We agree with Lenovo and prefer keeping the current name. As commented during the RRC CR review, we believe the current implementation is intentional and aligned with RAN2 agreements

[Ericsson-v022]: We agree with Lenovo and Huawei.

# J008

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| J008 | AIML | 1 | Setting *csi-LogMeasInfoList* in *UEInformationResponse* | R2-25xxxx | Sharp (LIU Lei) |  | V009 | ToDo |

**[Description]**: All the logged measurements in a cell may not be able to include in a single UEInformationResponse message, thus how to set *csi-LogMeasInfoList* in UEInformationResponse message should be clarified.

**[Proposed Change]**:

1> if the *csi-LogMeasReportReq* is present:

2> if *VarCSI-LogMeasReport* includes one or more logged measurement entries, set the contents of the *csi-LogMeasReport* in the *UEInformationResponse* message as follows:

3> include the *csi-LogMeasInfoCellList* and set it to include one or more entries from the *VarCSI-LogMeasReport* starting from the entries logged first;

3> for each entry in *csi-LogMeasInfoCellList*, if the corresponding logged measurement entries are available in *VarCSI-LogMeasReport*, include the *csi-LogMeasInfoList* and set it to include one or more logged measurement entries associated with that cell, starting from the logged measurement entries logged first.

**[Comments]**:

[WI CR rapporteur-v022]: We suggest to discuss this issue in Tdocs, together with J009.

# J009

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| J009 | AIML | 1 | Discard entries in *csi-LogMeasInfoCellList* after sending UEInformationResponse | R2-25xxxx | Sharp (LIU Lei) |  | V009 | ToDo |

**[Description]**: After sending UEInformationResponse message, the logged measurement entries included in the *csi-LogMeasInfoList* from *VarCSI-LogMeasReport* are discard. If *csi-LogMeasInfoList* is empty, the entries included in *csi-LogMeasInfoCellList* should be discard.

**[Proposed Change]**:

1> if the *csi-LogMeasReport* is included in the UEInformationResponse:

2> submit the *UEInformationResponse* message to lower layers for transmission via SRBX;

2> discard the logged measurement entries included in the *csi-LogMeasInfoList* from *VarCSI-LogMeasReport* and discard the entries in *csi-LogMeasInfoCellList* from *VarCSI-LogMeasReport* ifthe corresponding *csi-LogMeasInfoList* is empty upon successful delivery of the *UEInformationResponse* message confirmed by lower layers;

**[Comments]**:

[WI CR rapporteur-v022]: We suggest to discuss this issue in Tdocs, together with J008.

# N024

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N024 | AIML | 1 | NW-side buffer is implied to be datatype specific but it is supposed to be general. | N/A | Jerediah Fevold |  | vnnn | ToDo |

**[Description]**: The field name implies that the buffer can be reported or emptied at the granularity of the datatype. However, that has never been agreed.

**[Proposed Change]**:

RRCReconfigurationComplete-v19xy-IEs ::= SEQUENCE {

applicabilityReportList-r19 ApplicabilityReportList-r19 OPTIONAL,

nw-DC-LogMeasAvailable-r19 ENUMERATED {true} OPTIONAL,

nonCriticalExtension SEQUENCE {} OPTIONAL

}

**[Comments]**:

[Huawei-Dawid-v017]: Disagree with Nokia comment. There was a RAN2 agreement: “To define field names and IE based on the content of the logged data rather than the specific use case”

[Ericsson-v022]: Agree with Huawei’s comment.

# N025

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N025 | AIML | 1 | NW-side buffer is implied to be datatype specific but it is supposed to be general. | N/A | Jerediah Fevold |  | vnnn | ToDo |

**[Description]**: The field name implies that the buffer can be reported or emptied at the granularity of the datatype. However, that has never been agreed.

**[Proposed Change]**:

UEInformationRequest-v19xy-IEs ::= SEQUENCE {

nw-DC-LogMeasReportReq-r19 ENUMERATED {true} OPTIONAL, -- Need N

nonCriticalExtension SEQUENCE {} OPTIONAL

}

**[Comments]**:

[Huawei-Dawid-v017]: Disagree with Nokia comment. There was a RAN2 agreement: “To define field names and IE based on the content of the logged data rather than the specific use case”

[Ericsson-v022]: Agree with Huawei’s comment.

# N071

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N071 | AIML | 1 | Field *applicabilityReportList* description missing |  | Sakira Hassan |  | V015 | PropReject |

**[Description]**: *applicabilityReportList* description is missing from the *UEAssistanceInformation* description box. Adding the description clarifies that both inference configurations and inference related parameters can be reported in UAI.

**[Proposed Change]**: update the field description as below:

|  |
| --- |
| ***applicabilityReportList***  The applicability reports related to prediction configurations and sets of parameters for prediction configurations. |

**[Comments]**:

[WI CR rapporteur-v022]: We do not think the proposed change is needed, since *applicabilityReportList* is described for *RRCReconfigurationComplete*.

# N026

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N026 | AIML | 2 | NW-side buffer is implied to be datatype specific but it is supposed to be general. | N/A | Jerediah Fevold |  | vnnn | ToDo |

**[Description]**: In the future, other use cases could share the same buffer. If we use separate IEs to report each datatype, then the indication of further data availability will need to be signaled in each type for which more data is available. This would have limited utility, though, since the gNB presumably wants all of the data which it configured for collection. Therefore, a higher-level report IE needs to store the different types as a choice (Option 1), or the data availability indicator needs to be moved outside of the report IE (Option 2).

**[Proposed Change]**:

UEInformationResponse-v19xy-IEs ::= SEQUENCE {

nw-DC-LogMeasReport-r19 NW-DC-LogMeasReport-r19 OPTIONAL, (Option 1)

nw-DC-logMeasAvailable-r19 ENUMERATED {true} OPTIONAL, (Option 2)

nonCriticalExtension SEQUENCE {} OPTIONAL

}

NW-DC-LogMeasReport-r19 ::= SEQUENCE {

logMeasReportType-r19 CHOICE {

csi-LogMeasReport-r19 CSI-LogMeasReport-r19,

spare3 NULL,

spare2 NULL,

spare1 NULL

},

nw-DC-logMeasAvailable-r19 ENUMERATED {true} OPTIONAL,

}

**[Comments]**:

[Huawei-Dawid-v017]: Disagree with Nokia comment. There was a RAN2 agreement: “To define field names and IE based on the content of the logged data rather than the specific use case”. We can discuss how to implement other use cases once these use cases get specified in Rel-20

[Ericsson-v022]: Agree with Huawei’s comment.

# N027

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N027 | AIML | 1 | Fieldname mismatch | N/A | Jerediah Fevold |  | vnnn | PropAgree |

**[Description]**: Change the fieldname for ApplicabilitySetConfigId-r19 from applicabilitySetId-r19 to applicabilitySetConfigId-r19. Similar issues throughout remove the word “config” from the names, but there is no need for conciseness.

**[Proposed Change]**:

ApplicabilitySetConfigId-r19 ::= INTEGER (0..maxNrofApplicabilitySetConfigs-1-r19) [RIL]: N027 AIML

ApplicabilityInfoReport-r19 ::= SEQUENCE {

applicabilityInfoReportId-r19 CHOICE {

csi-ReportConfigId-r19 CSI-ReportConfigId,

applicabilitySetConfigId-r19 ApplicabilitySetConfigId-r19,

**[Comments]**:

[WI CR rapporteur-v022]: The intention was to use “config” only in field names in *otherConfig*, whereas field names in *ApplicabilityConfigList* were supposed to not contain “config”, so that we can distinguish in the procedural text the fields configured by the network vs. those sent by the UE. Accordingly, we agree with the proposed change for *ApplicabilitySetConfigId*, but not with the one for *ApplicabilityInfoReport*. We changed the status to “PropAgree”, with the intention to capture just the first proposed change in the CR.

# E041

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| E041 | AIML | 2 | Associated ID validity | R2-25xxxx | Ericsson (Jens) |  | V022 | ToDo |

**[Description]**: According to current specifications, once an associated ID value is signaled from the network to the UE, the meaning of that value at the UE (or UE-side entity) corresponds to the same beam property/deployment forever. There is no way for the network to reset/reassign that value to other beam properties and inform the UE that should forget the old meaning of that value. We think it is unreasonable to assume that a given meaning holds for a given associated ID forever. It may happen that e.g. some hardware is replaced and the old hardware is not used again anywhere else in the network, or there is a failure/reset in the network entity storing/assigning associated IDs, after which the legacy associated ID meanings (assigned to deployment characteristics) cannot be recovered. Although such events may be very unlikely, they may still happen at a certain point in the future. Thus, there should be a way for the network and UE to make sure that they have the same understanding of an associated ID value. This is important for the UE (or UE-side entity) to be able to understand if a model exists and/or is trained for the same deployment assumed by the network for an associated ID.

**[Proposed Change]**: We will discuss this issue in more detail and present possible solutions in a Tdoc.

**[Comments]**:

# B203

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| B203 | AIML | 2 | Need code for loggingPeriodicity |  | Congchi Zhang |  | V011 | PropAgree |

**[Description]**:

As described in procedure text, UE may either logging according to loggingPeriodicity or according to the resource periodicity. UE does not need to maintain the loggingPeriodicity if absent. “Need R” would be more appropriate.

**[Proposed Change]**:

CSI-LoggedMeasurementConfig-r19 ::= SEQUENCE {

csi-LoggedMeasurementConfigId-r19 CSI-LoggedMeasurementConfigId-r19,

csi-LoggedResourceConfig-r19 CSI-ResourceConfigId,

loggingPeriodicity-r19 ENUMERATED {n2, n3, n4, n5, spare4, spare3, spare2, spare1} OPTIONAL, -- Need R

csi-LoggedMeasurementEventTriggerConfig-r19 CSI-LoggedMeasurementEventTriggerConfig-r19 OPTIONAL, -- Need R

...

}

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# N028

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N028 | AIML | 2 | Reuse of A1/A2 events for NW-side logging | R2-25xxxx | Jerediah Fevold |  | vnnn | ToDo |

**[Description]**: It was agreed to reuse A1 and A2 events. The implementation does not reflect that agreement. The proposed change below could be simplified by making the entire structure a choice which can only ever contain different types of events. That is, if we do not think this IE would be extended with anything else, then the outer level can be a CHOICE and the second set of extension markers could be removed.

**[Proposed Change]**:

CSI-LoggedMeasurementEventTriggerConfig-r19 ::= SEQUENCE {

eventId CHOICE {

eventA1 SEQUENCE {

a1-Threshold MeasTriggerQuantity,

hysteresis Hysteresis,

timeToTrigger TimeToTrigger

},

eventA2 SEQUENCE {

a2-Threshold MeasTriggerQuantity,

hysteresis Hysteresis,

timeToTrigger TimeToTrigger

},

...

},

...

}

**[Comments]**:

[WI CR rapporteur-v022]: We think both the current solution and the proposed solution work. We suggest to discuss this issue in a Tdoc, addressing also other changes that are needed for the proposed solution.

# N073

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N073 | AIML | 1 | Mismatch in ASN.1 and description of *nrofReportedRS-v19xy* |  | Sakira Hassan |  | V015 | PropAgree |

**[Description]**: The value {n6, n8} provided for *nrofReportedRS-v19xy* doesn’t match with the description.

nrofReportedRS-v19xy ENUMERATED {n6, n8} OPTIONAL, -- Need R

|  |
| --- |
| ***nrofReportedRS***  The number (N) of measured RS resources to be reported per report setting in a non-group-based report. N <= N\_max, where N\_max is either 2 or 4 depending on UE capability.  (see TS 38.214 [19], clause 5.2.1.4) When the field is absent the UE applies the value 1. Network does not configure *nrofReportedRS-v19xy* at the same time as *nrofReportedRS* (without suffix). |

**[Proposed Change]**:

**[Comments]**:

[Ericsson-v022]: We agree with the issue. A proposed solution is:

***nrofReportedRS***

The number (N) of measured RS resources to be reported per report setting in a non-group-based report. N <= N\_max, where N\_max is 2. 4, 6 or 8 depending on UE capability.

(see TS 38.214 [19], clause 5.2.1.4) When the field is absent the UE applies the value 1. Network does not configure *nrofReportedRS-v19xy* at the same time as *nrofReportedRS* (without suffix).

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”, based on the solution from Ericsson.

# N021

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N021 | AIML | 2 | Remove the CHOICE hierarchy from the configuration for CSI prediction and beam prediction | R2-25xxxx | Jerediah Fevold |  | vnnn | ToDo |

**[Description]**: The extra hierarchy introduced by forcing a choice between *predictionConfiguration-r19* and *configurationForChannelMonitoring-r19* is unnecessary and does not have the advantage of grouping many parameters together. It should be obvious to the configuring entity that one or the other should be configured.

**[Proposed Change]**: Eliminate one level of hierarchy by removing the choice element *predictionConfiguration* from *CSI-ReportConfig* and bring *predictionConfiguration-r19* and *configurationForChannelMonitoring-r19* to the main level of *CSI-ReportConfig*.

[[

nrofReportedRS-v19xy ENUMERATED {n6, n8} OPTIONAL, -- Need R

reportQuantity-r19 ReportQuantity-r19 OPTIONAL, -- Need R

csi-InferencePrediction-r19 ENUMERATED {true},

configurationForChannelPrediction-r19 SEQUENCE {

resourcesForChannelPrediction-r19 CSI-ResourceConfigId OPTIONAL, -- Need R

associatedIdForChannelPrediction-r19 AssociatedId-r19 OPTIONAL, -- Need R

associatedIdForChannelMeasurement-r19 AssociatedId-r19 OPTIONAL, -- Need R

nrofReportedPredicted-RS-r19 ENUMERATED {n1, n2, n3, n4} OPTIONAL, -- Need R

nrofTimeInstance-r19 ENUMERATED {n1, n2, n4, n8} OPTIONAL, -- Need R

timeGap-r19 ENUMERATED {ms10, ms20, ms40, ms80, ms160, spare3, spare2, spare1} OPTIONAL, -- Need R

...

} OPTIONAL, -- Need R

configurationForChannelMonitoring-r19 SEQUENCE {

refToPredictionConfig-r19 CSI-ReportConfigId,

nrofBestBeamForMonitoring-r19 ENUMERATED {n1, n2} OPTIONAL, -- Need R

nrofTransmissionOccasion-r19 ENUMERATED {n1, n3, n7, n15} OPTIONAL, -- Need R

timeInstanceFor-RS-PAI-r19 ENUMERATED {n1, n2, n8, spare1} OPTIONAL, -- Need R

mappingToResourcesForChannelPrediction-r19 BIT STRING (SIZE (1..maxNrofNZP-CSI-RS-ResourcesPerSet)) OPTIONAL, -- Need R

timeInstanceFor-SGCS-r19 ENUMERATED {n1, spare3, spare2, spare1} OPTIONAL, -- Need R

...

} OPTIONAL -- Need R

]]

**[Comments]**:

[WI CR rapporteur-v022]: We suggest to discuss the restructuring of this part in a Tdoc, since there are also other solutions that other companies raised in the past and in RIL H003.

# N022

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N022 | AIML | 2 | Move csi-InferencePrediction into configurationForChannelPrediction-r19 | N/A | Jerediah Fevold |  | vnnn | PropReject |

**[Description]**: The parameter *csi-InferencePrediction-r19* is used to indicate if a *CSI-ReportConfig* is one configured for CSI prediction. Because the configuration for channel monitoring can only be linked to one AI/ML-enabled *CSI-ReportConfig*, and the referenced configuration will contain this parameter, it would be redundant to also configure it when *configurationForChannelMonitoring-r19* is selected.

**[Proposed Change]**: Move *csi-InferencePrediction-r19* inside of *predictionConfiguration-r19*.

configurationForChannelPrediction-r19 SEQUENCE {

csi-InferencePrediction-r19 ENUMERATED {true},

resourcesForChannelPrediction-r19 CSI-ResourceConfigId OPTIONAL, -- Need R

associatedIdForChannelPrediction-r19 AssociatedId-r19 OPTIONAL, -- Need R

associatedIdForChannelMeasurement-r19 AssociatedId-r19 OPTIONAL, -- Need R

nrofReportedPredicted-RS-r19 ENUMERATED {n1, n2, n3, n4} OPTIONAL, -- Need R

nrofTimeInstance-r19 ENUMERATED {n1, n2, n4, n8} OPTIONAL, -- Need R

timeGap-r19 ENUMERATED {ms10, ms20, ms40, ms80, ms160, spare3, spare2, spare1} OPTIONAL, -- Need R

...

} OPTIONAL, -- Need R

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropReject”. We agree that *csi-InferencePrediction-r19* is configured only in an inference configuration and not in a performance monitoring configuration. However, we got input from several companies in past email discussions that they prefer to keep *csi-InferencePrediction-r19* outside of *configurationForChannelPrediction*, since none of the other fields within *configurationForChannelPrediction* refers to the CSI prediction use case (they all refer to the BM case).

# N023

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Nxx3 | AIML | 2 | Make csi-InferencePrediction-r19 an OPTIONAL parameter with Need R | N/A | Jerediah Fevold |  | vnnn | PropAgree |

**[Description]**: *csi-InferencePrediction-r19* should be OPTIONAL in *CSI-ReportConfig*. Otherwise, it is impossible to configure beam prediction.

**[Proposed Change]**: Add the OPTIONAL flag and Need R to *csi-InferencePrediction-r19*.

**[Comments]**:

[WI CR rapporteur-v020]: We changed the status from “ToDo” to “PropAgree”.

# C078

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C078 | AIML | 2 | Conditionally mandatory parameter |  | Tangxun |  | V003 | PropReject |

**[Description]**: in current spec, “*refToPredictionConfig-r19*” is a mandatory parameter for monitoring configuration. But according to RAN1 parameter list, i.e., “This field is mandatory present if the reportQuantity-r19 is set to ‘rspai-r19’”, it should be conditionally mandatory. In other words, we should add optional indication for this parameter.

**[Proposed Change]**: update the ASN.1 as below:

configurationForChannelMonitoring-r19 SEQUENCE {

refToPredictionConfig-r19 CSI-ReportConfigId OPTIONAL, -- Cond Rspai

nrofBestBeamForMonitoring-r19 ENUMERATED {n1, n2} OPTIONAL, -- Need R

nrofTransmissionOccasion-r19 ENUMERATED {n1, n3, n7, n15} OPTIONAL, -- Need R

timeInstanceFor-RS-PAI-r19 ENUMERATED {n1, n2, n8, spare1} OPTIONAL, -- Need R

mappingToResourcesForChannelPrediction-r19 BIT STRING (SIZE (1..maxNrofNZP-CSI-RS-ResourcesPerSet)) OPTIONAL, -- Need R

timeInstanceFor-SGCS-r19 ENUMERATED {n1, spare3, spare2, spare1} OPTIONAL, -- Need R

...

}

|  |  |
| --- | --- |
| Conditional Presence | Explanation |
| *Rspai* | It is mandatory present if the IE *reportQuantity-r19 is set to ‘rs-PAI-r19’* |

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropReject”. We think the proposed solution is not fully correct, since *refToPredictionConfig-r19* should be configured also if *reportQuantity-r19* is set to ‘*csi-PAI-r19*’ (performance monitoring for CSI prediction). For simplicitly, we prefer to keep the original version, where *refToPredictionConfig-r19* is mandatory within *configurationForChannelMonitoring* and, in turn, it is assumed that *configurationForChannelMonitoring* is configured only for performance monitoring configurations.

# C079

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C079 | AIML | 1 | *srb-Identity-v19xy* |  | Tangxun |  | V003 | PropAgree |

**[Description]**: “*srb-Identity-v19xy*” is missing in the field description box

**[Proposed Change]**: update the field description as below:

|  |
| --- |
| ***srb-Identity, srb-Identity-v1700, srb-Identity-v1800, srb-Identity-v19xy***  Value 1 is applicable for SRB1 only. Value 2 is applicable for SRB2 only. Value 3 is applicable for SRB3 only. Value 4 is applicable for SRB4 only. Value 5 is applicable for SRB5 only. Value x is applicable for SRBx only. If *srb-Identity-v1700*, *srb-Identity-v1800* or *srb-Identity-v19xy* is received for an SRB, the UE shall ignore *srb-Identity* (i.e. without suffix) for this SRB. |

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# C080

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C080 | AIML | 1 | TTT for stoping logging |  | Tangxun |  | V003 | PropAgree |

**[Description]**: in current spec, “*TimeToTrigger*” is not only used in starting logging, but also used in stopping logging specified as below:

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the leaving condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the leaving condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:

4> stop performing the logging for the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*;

But this has not been reflected in the description of TimeToTrigger.

**[Proposed Change]**: update the description as below:

– TimeToTrigger

The IE *TimeToTrigger* specifies the value range used for time to trigger parameter, which concerns the time during which specific criteria for the event needs to be met in order to trigger a measurement report or start/stop logging of measurements for network-side data collection. Value *ms0* corresponds to 0 ms and behaviour as specified in 7.1.2 applies, value *ms40* corresponds to 40 ms, and so on.

**[Comments]**:

[Lenovo-Congchi-v011]: Agree

[WI CR rapporteur-v020]: We changed the status from “ToDo” to “PropAgree”.

# E042

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| E042 | AIML | 2 | Necessity of dedicated flag to configure applicability reporting via UAI | R2-25xxxx | Ericsson (Andra) |  | V022 | ToDo |

**[Description]**: RAN2#130 agreed the following:

“2 Introduce a flag in OtherConfig indicating whether applicability reporting via UAI is enabled or disabled. Assume this applies to Option A and B, FFS if anything different needs to be done for option B (if specified)”

After adding the sets of inference related parameters for option B in *otherConfig*, it was not discussed how to combine this flag in ASN.1 with the configurations for option B.

**[Proposed Change]**: We will provide a more detailed discussion and solutions in a Tdoc. Some possible solutions are:

Remove the separate flag *reportApplicabilityUAI-r19* and assume that applicapility reporting via UAI is implicitly configured when *applicabilityReportConfig* is included in *otherConfig*.

Keep the flag *reportApplicabilityUAI-r19* within *applicabilityReportConfig*, as it is*.*

Move the flag *reportApplicabilityUAI-r19* one level up, directly under *otherConfig*.

**[Comments]**:

# C083

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C083 | AIML | 2 | AddModList for applicabilityConfigList-r19 | R2-250xxxx | Tangxun |  | V007 | ToDo |

**[Description]**: in current spec, “*Need R*” is used for “applicabilityConfigList-r19”, which means this will be a new list every time when UE receives it. Even if network only wants to modify the entry for one serving cell, it has to provide the whole list for all serving cells, otherwise the other entries for other cells will be deleted. Also considering the following procedural text:

2> if the *RRCReconfiguration* message includes at least one entry in *applicabilityConfigList* within *applicabilityReportConfig*; or

<other parts omitted>

3> for each serving cell associated with any of the configurations above, include an entry in the *applicabilityReportList* and set the content as follows:

4> set the *applicabilityCellId* to the serving cell index of the cell;

4> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*, that is included in the *RRCReconfiguration* message or for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either *RRCReconfigurationComplete* or *UEAssistanceInformation*):

A UE has to report applicability status for each serving cell upon receiving this applicabilityConfigList-r19. Then change based applicability reporting is actually not implemented.

**[Proposed Change]**: adopt AddModList structure for applicabilityConfigList-r19 as below:

   applicabilityConfigToAddModList-r17                  applicabilityConfigToAddModList-r19                                    OPTIONAL,   -- Need N

   applicabilityConfigToReleaseList-r17                 applicabilityConfigToReleaseList-r19                                   OPTIONAL,   -- Need N

To address C083 and C084 together, a tdoc is planned to provide a TP for both changes in ASN.1 part and procedural text part.

**[Comments]**:

[Huawei-Dawid-v017]: We raised the same issue during post-meeting RRC CR review and we agree with this proposal.

[WI CR rapporteur-v022]: We are fine with the proposed solution and also with the suggestion to discuss this in a Tdoc, to provide a complete TP.

# C084

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C084 | AIML | 2 | AddModList for applicabilitySetConfigList-r19 | R2-250xxxx | Tangxun |  | V007 | ToDo |

**[Description]**: in current spec, “*Need R*” is used for “applicabilitySetConfigList-r19”, which means this will be a new list every time when UE receives it. Even if network only wants to modify one entry for one AI functionality, it has to provide the whole list for all functionalities, otherwise the other entries will be deleted. Also considering the following procedural text:

2> if the *RRCReconfiguration* message includes at least one entry in *applicabilityConfigList* within *applicabilityReportConfig*; or

<other parts omitted>

3> for each serving cell associated with any of the configurations above, include an entry in the *applicabilityReportList* and set the content as follows:

4> set the *applicabilityCellId* to the serving cell index of the cell;

4> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*, that is included in the *RRCReconfiguration* message or for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either *RRCReconfigurationComplete* or *UEAssistanceInformation*):

A UE has to report applicability status for each entry in a serving cell upon receiving this applicabilitySetConfigList-r19. Then change based applicability reporting is actually not implemented.

**[Proposed Change]**: adopt AddModList structure for applicabilitySetConfigList-r19 as below:

   applicabilitySetConfigToAddModList-r17            applicabilitySetConfigToAddModList-r19                                    OPTIONAL,   -- Need N

   applicabilitySetConfigToReleaseList-r17           applicabilitySetConfigToReleaseList-r19                                   OPTIONAL,   -- Need N

To address C083 and C084 together, a tdoc is planned to provide a TP for both changes in ASN.1 part and procedural text part.

**[Comments]**:

[Lenovo-Congchi-v011]: Tend to agree with CATT. Adopting add/mod/release seems more flexible. And the applicabilityConfigCellId should also be mandatory in this case. Relevant to B205.

[Xiaomi-Xing-012]: We also propose to use ToAddMod structure. By using the list structure, NW has to provide the full list upon modification or release for a certain entry. ToAddMod structure can be used to reduce the signalling upon modification or release for a certain entry.

[Huawei-Dawid-v017]: We raised the same issue during post-meeting RRC CR review and we agree with this proposal. A simple TP is provided below corresponding to both C083 and C084 (as we planned to submit this issue as well, but noticed it was already added. However, also procedural part will have to be corrected accordingly.

ApplicabilityReportConfig-r19 ::= SEQUENCE {

reportApplicabilityUAI-r19 ENUMERATED {true} OPTIONAL, -- Need R

applicabilityConfigToAddModList-r19 SEQUENCE (SIZE (1..maxNrofServingCells)) OF ApplicabilityConfig-r19 OPTIONAL, -- Need N

applicabilityConfigToReleaseList-r19 SEQUENCE (SIZE (1..maxNrofServingCells)) OF ServCellIndex OPTIONAL, -- Need N

...

}

ApplicabilityConfig-r19 ::= SEQUENCE {

applicabilityConfigCellId-r19 ServCellIndex OPTIONAL, -- Need R

applicabilitySetConfigToAddModList-r19 SEQUENCE (SIZE (1..maxNrofApplicabilitySets-r19)) OF ApplicabilitySetConfig-r19 OPTIONAL, -- Need N

applicabilitySetConfigToReleaseList-r19 SEQUENCE (SIZE (1..maxNrofApplicabilitySets-r19)) OF ApplicabilitySetConfigId-r19 OPTIONAL, -- Need N

...

}

[WI CR rapporteur-v020]: We are fine with the proposed solution and also with the suggestion to discuss this in a Tdoc, to provide a complete TP.

# H002

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H002 | AIML | 1 | Retaining logged measurements during LTM | R2-25xxxx | Dawid |  | vnnn | ToDo |

**[Description]**:

RAN2 made the following agreement:

1. RAN2 confirm that the solution agreed in RAN2#130 is applicable to regular HO and CHO (i.e. 1-bit indication corresponding to each candidate cell configuration in RRCReconfiguration is provided).

LTM is not part of the agreement, but it seems there is nothing preventing the network from adding retainLoggedMeasurements also to the LTM candidate cells which also reuse RRCReconfiguraiton containers.

**[Proposed Change]**: No change is needed, but RAN2 is requested to confirm that reatinLoggedMeasurements can also be used for LTM candidate configurations.

**[Comments]**:

[WI CR rapporteur-v022]: In our understanding, the intention of the proposal was to not do enhancements specific to LTM, while also not explicitly exclude it. However, for alignment, we suggest that companies discuss this RIL in a Tdoc.

# N072

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N072 | AIML | 1 | Description of Assoicated ID indication for Set A and Set B |  | Sakira Hassan |  | V015 | PropAgree |

**[Description]**: The descriptions of *associatedIdForChannelMeasurement* and *associatedIdForChannelPrediction* in the *CSI-ReportConfig* description box are not clarified well.

**[Proposed Change]**: Adopt the following changes:

|  |
| --- |
| *CSI-ReportConfig* field descriptions |
| *associatedIdForChannelMeasurement*  Indicates the *AssociatedId* assigned to the *resourcesForChannelMeasurement* or to the *resourcesForChannelPrediction.* This field is absent if *resourcesForChannelPrediction* is not configured or if *resourcesForChannelMeasurement* is equal to or a subset of *resourcesForChannelPrediction*. |
| *associatedIdForChannelPrediction*  Indicates the *AssociatedId* assigned to the *resourcesForChannelMeasurement* or to the *resourcesForChannelPrediction.* This field is absent if *resourcesForChannelPrediction* is not configured. |

**[Comments]**:

[WI CR rapporteur-v022]: We agree that the field descriptions can be improved, but we think the proposed changes are not fully correct, so we suggest the following changes instead:

|  |
| --- |
| *CSI-ReportConfig* field descriptions |
| *associatedIdForChannelMeasurement*  Indicates the associated ID for *resourcesForChannelMeasurement.*  This field is absent if *resourcesForChannelPrediction* is not configured or if *resourcesForChannelMeasurement* is equal to or a subset of *resourcesForChannelPrediction*. |
| *associatedIdForChannelPrediction*  Indicates the associated ID for *resourcesForChannelPrediction.* This field is absent if *resourcesForChannelPrediction* is not configured. |

# H005

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H005 | AIML | 1 | L1 parameters descriptions |  | Dawid |  | vnnn | PropAgree |

**[Description]**:

The descriptions of nrofTimeInstance-r19 and timeGap-r19 parameters were updated by RAN1 in the latest higher layer parameters list in R1-2506622, as follows:



The descriptions in RRC need to be updated accordingly.

**[Proposed Change]**:

***nrofTimeInstance***

When *reportQuantity-r19* is set to'p-CRI-r19', 'p-SSB-Index-r19’, 'p-CRI-RSRP-r19' or 'p-SSB-Index-RSRP-r19', this field indicates the number of future time instance(s) N for prediction to be reported per report setting. When *reportQuantity-r19* is set to 'none-BM-r19', this field indicates the number of expected future time instance(s) N of prediction per report setting.This field is not configured together with other *reportQuantity-r19* settings. This field is present only if *timeGap* is configured.

***timeGap***

When *reportQuantity-r19* is set to'p-CRI-r19', 'p-SSB-Index-r19’, 'p-CRI-RSRP-r19' or 'p-SSB-Index-RSRP-r19':

- if *nrofTimeInstance-r19* is set to 1, this field indicates the time gap between the reference time and the first future time instance for prediction,

- if *nrofTimeInstance-r19* is set to >1, this field indicates the time gap between two consecutive future time instances for prediction

When *reportQuantity-r19* is set to 'none-BM-r19':

- if *nrofTimeInstance-r19* is set to 1, this field indicates the expected time gap between the reference time and the first future time instance of prediction,

- if *nrofTimeInstance-r19* is set to >1, this field indicates the expected time gap between two consecutive future time instances of prediction.

This field is present only if *resourcesForChannelPrediction-r19* and *nrofTimeInstance-r19* are configured.

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# B204

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| B204 | AIML | 1 | Description related to none-BM-r19 and none-CSI-r19 |  | Congchi Zhang |  | V011 | ToDo |

**[Description]**:

When ‘none-BM-r19’ or ‘none-CSI-r19’ is configured, UE is expected to perform and measurement and not report the result to gNB. Besides, And it would be good to clarify that ‘non-BM-r19’ and ‘none-CSI-r19’ are for UE-side data collection. In the procedure text there are many places quoted “UE-side data collection configuration” but there seems nowhere clarifies what is it.

**[Proposed Change]**:

***resourcesForChannelPrediction***

Indicates resources to be predicted based on measurements performed on *resourcesForChannelMeasurement*. The UE is not expected to measure the resources to be predicted, unless the *reportQuantity-r19* is set to 'none-BM-r19' or ‘none-CSI-r19’. This field is present only if *reportQuantity-r19* is set to'p-CRI-r19', 'p-SSB-Index’-r19, 'p-CRI-RSRP-r19', 'p-SSB-Index-RSRP-r19', 'none-BM-r19', or ‘none-CSI-r19’. When reportQuantity-r19 is set to 'none-BM-r19' or ‘none-CSI-r19’, it implies the configuration is for UE-side data collection.

**[Comments]**:

[LGE-Soo-v020] Agree

[WI CR rapporteur-v022]: We are fine with the intention of the proposal. However, the proposed changes are not correct because *resourcesForChannelPrediction* is configured only for beam management and not for CSI prediction, so ‘none-CSI-r19’ should not appear in this field description. Perhaps alternative solutions can be provided.

[Lenovo-Congchi-v024]: Thanks repporteur for poingt it out. Another alternative could be making a general clarification in the field description of *reportQuantity,* since we already started clarifying *reportQuantity-r19* there.

***reportQuantity***

The CSI related quantities to report. see TS 38.214 [19], clause 5.2.1. If the field *reportQuantity-r16,* *reportQuantity-r17, reportQuantity-r18* or *reportQuantity-r19* is present, UE shall ignore *reportQuantity* (without suffix). Network does not configure *reportQuantity-r17* or *reportQuantity-r18* together with *reportQuantity-r16.* Network does not configure *reportQuantity-r19* together with *reportQuantity-r16, reportQuantity-r17* or *reportQuantity-r18.* When *reportQuantity-r19* is set to 'none-BM-r19' or ‘none-CSI-r19’, it implies the configuration is for UE-side data collection.

# N029

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N029 | AIML | 1 | Variable name for maximum number of data collection candidate configs is inconsistent. | N/A | Jerediah Fevold |  | vnnn | PropAgree |

**[Description]**: The variable for the maximum number of DataCollectionCandidateConfigId-r19 is inconsistent with the name of the ID it is counting.

**[Proposed Change]**:

DataCollectionCandidateConfigId-r19 ::= INTEGER (0..maxNrofDataCollectionCandidateConfigs-1-r19)

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# N030

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N030 | AIML | 2 | Applicability set config ID should not be optional in applicabilitySetConfig. | N/A | Jerediah Fevold |  | vnnn | PropAgree |

**[Description]**: The field *applicabilitySetConfigId-r19* in *ApplicabilitySetConfig-r19* should not be OPTIONAL as it is required for reporting applicability. Other fields could also be checked, such as *resourcesForChannelMeasurement-r19*.

**[Proposed Change]**:

ApplicabilitySetConfig-r19 ::= SEQUENCE {

applicabilitySetConfigId-r19 ApplicabilitySetConfigId-r19 , -- Need R [RIL]: N030 AIML

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”. The intention was to have as many fields as possible as optional, for potential cases in the future, where these fields are not required. However, since it is very unlikely that a configuration ID is not needed, the proposed change is fine.

# B205

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| B205 | AIML | 2 | applicabilityConfigCellId is mandatory |  | Congchi Zhang |  | V011 | PropAgree |

**[Description]**:

Relevant to C084, the appiabilityConfigCellId of service cell index should dbe mandatory in that case, since the applicability config is per cell.

**[Proposed Change]**:

ApplicabilityConfig-r19 ::= SEQUENCE {

applicabilityConfigCellId-r19 ServCellIndex,

applicabilitySetConfigList-r19 SEQUENCE (SIZE (1..maxNrofApplicabilitySets-r19)) OF ApplicabilitySetConfig-r19 OPTIONAL, -- Need R

...

}

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# N035

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N035 | AIML | 1 | Applicability set is specific to two use cases but uses a generic name. | N/A | Jerediah Fevold |  | vnnn | PropAgree |

**[Description]**: In case beam prediction is not the only use case which will support reporting applicability based on sets of inference-related parameters, we think it would be useful to name the IE carrying the parameters for beam prediction more specifically. The exact name is not important, but we have suggested adding CSI to the name below. Future extensions can be added as more lists of applicabilitySetConfig\* if needed.

**[Proposed Change]**:

ApplicabilityConfig-r19 ::= SEQUENCE {

applicabilityConfigCellId-r19 ServCellIndex OPTIONAL, -- Need R

applicabilitySetConfigCSI-List-r19 SEQUENCE (SIZE (1..maxNrofApplicabilitySetsCSI-r19)) OF ApplicabilitySetCSI-Config-r19 OPTIONAL, -- Need R

...

}

ApplicabilitySetCSI-Config-r19 ::= SEQUENCE {

applicabilitySetConfigId-r19 ApplicabilitySetConfigId-r19 OPTIONAL, -- Need R [RIL]: N030 AIML

resourcesForChannelMeasurement CSI-ResourceConfigId OPTIONAL, -- Need R

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# C081

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C081 | AIML | 1 | availability of logged radio measurements data |  | Tangxun |  | V006 | PropAgree |

**[Description]**: we notice that the availability indication of logged data in UAI has been removed from ASN.1, as it can’t be reported separately, i.e., implicitly indicated by full-buffer or low-power indication. But in the field description of loggedDataCollectionAssistanceConfig, the UE behaviour of reporting separate availability indication remains. So it should be removed to avoid further confusion.

**[Proposed Change]**: update the description as below:

|  |
| --- |
| ***loggedDataCollectionAssistanceConfig***  Configuration for the UE to report assistance information related to logging of radio measurements for network-side data collection. |

**[Comments]**:

[WI CR rapporteur-v022]: We agree that the word “availability” can be removed, but we do not think we should remove the entire second sentence as suggested. Otherwise it is not clear what indications are configured. We propose the alternative change below and we changed the status from “ToDo” to “PropAgree”.

| ***loggedDataCollectionAssistanceConfig***  Configuration for the UE to report assistance information related to logging of radio measurements for network-side data collection. When configured with *loggedDataCollectionAssistanceConfig* the UE reports that it has logged radio measurements for network-side data collection when the buffer reserved for logging of radio measurements for network-side data collection has become full and it reports when it determines that it has entered a low power state. |
| --- |

# C082

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| C082 | AIML | 1 | availability of logged radio measurements data |  | Tangxun |  | V006 | PropAgree |

**[Description]**: we notice that the availability indication of logged data in UAI has been removed from ASN.1, as it can’t be reported separately, i.e., implicitly indicated by full-buffer or low-power indication. But in the field description of loggedDataCollectionBufferThreshold, the UE behaviour of reporting separate availability indication remains. So it should be removed to avoid further confusion.

**[Proposed Change]**: update the description as below:

|  |
| --- |
| ***loggedDataCollectionBufferThreshold***  Buffer threshold for the UE to report assistance information related to logging of radio measurements for network-side data collection. Value *kB16* means the threshold is set to 16 kB and so on. |

**[Comments]**:

[WI CR rapporteur-v022]: As for C081, we agree that the word “availability” can be removed and the text can be improved, but we do not think we should remove the entire explanation, as suggested. We propose the alternative change below and we changed the status from “ToDo” to “PropAgree”.

| ***loggedDataCollectionBufferThreshold***  Buffer threshold for the UE to report that it has logged radio measurements for network-side data collection, if the amount of data in the buffer reserved for logging of radio measurements for network-side data collection has become equal to or above this threshold.. Value *kB16* means the threshold is set to 16 kB and so on. |
| --- |

# H006

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H006 | AIML | 2 | Missing imports |  |  |  | vnnn | PropAgree |

**[Description]**:

CSI-LogMeasInfoCellList-r19 is missing from “IMPORTS” in section 7.4.

**[Proposed Change]**:

## 7.4 UE variables

NOTE: To facilitate the specification of the UE behavioural requirements, UE variables are represented using ASN.1. Unless explicitly specified otherwise, it is however up to UE implementation how to store the variables. The optionality of the IEs in ASN.1 is used only to indicate that the values may not always be available.

#### – *NR-UE-Variables*

This ASN.1 segment is the start of the NR UE variable definitions.

-- ASN1START

-- NR-UE-VARIABLES-START

NR-UE-Variables DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

AreaConfiguration-r17,

ARFCN-ValueNR,

CellIdentity,

EUTRA-PhysCellId,

maxCEFReport-r17,

maxCellReport,

MeasId,

MeasIdToAddModList,

MeasIdleCarrierEUTRA-r16,

MeasIdleCarrierNR-r16,

MeasResultIdleEUTRA-r16,

MeasResultIdleNR-r16,

MeasReselectionCarrierNR-r18,

MeasurementValidityDuration-r18,

MeasObjectToAddModList,

MeasConfigAppLayerId-r17,

MeasConfigAppLayer-r17,

maxNrofAppLayerMeas-r17,

AppLayerIdleInactiveConfig-r18,

PhysCellId,

RNTI-Value,

ReportConfigToAddModList,

RSRP-Range,

SL-MeasId-r16,

SL-MeasIdList-r16,

SL-MeasObjectList-r16,

SL-ReportConfigList-r16,

SL-QuantityConfig-r16,

Tx-PoolMeasList-r16,

QuantityConfig,

maxNrofCellMeas,

maxNrofMeasId,

maxFreqIdle-r16,

PhysCellIdUTRA-FDD-r16,

ValidityAreaList-r16,

CondReconfigToAddModList-r16,

ConnEstFailReport-r16,

LoggingDuration-r16,

LoggingInterval-r16,

LogMeasInfoList-r16,

LogMeasInfo-r16,

RA-Report-r16,

RLF-Report-r16,

TraceReference-r16,

WLAN-Identifiers-r16,

WLAN-NameList-r16,

BT-NameList-r16,

PLMN-Identity,

maxNrofRelayMeas-r17,

maxPLMN,

RA-ReportList-r16,

VisitedCellInfoList-r16,

AbsoluteTimeInfo-r16,

LoggedEventTriggerConfig-r16,

LoggedPeriodicalReportConfig-r16,

Sensor-NameList-r16,

SL-SourceIdentity-r17,

SuccessHO-Report-r17,

PLMN-IdentityList2-r16,

AreaConfiguration-r16,

maxNrofSL-MeasId-r16,

maxNrofFreqSL-r16,

maxNrofCLI-RSSI-Resources-r16,

maxNrofCLI-SRS-Resources-r16,

RSSI-ResourceId-r16,

SRS-ResourceId,

VisitedPSCellInfoList-r17,

SuccessPSCell-Report-r18,

maxNPN-r16,

SNPN-ConfigID-List-r18,

AreaConfiguration-v1800,

NID-r16,

SK-CounterConfig-r18,

ReferenceConfiguration-r18,

maxNrofLTM-Configs-plus1-r18,

maxSecurityCellSet-r18,

CSI-LogMeasInfoCellList-r19

FROM NR-RRC-Definitions;

-- NR-UE-VARIABLES-STOP

-- ASN1STOP

**[Comments]**:

[Lenovo-Congchi-v014]: Ok but need to be fixed already during CR implementation. Otherwise, the R19 ASN.1 will not pass syntax check.

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# B206

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| B206 | AIML | 1 | Transfer of applicability information in handover command preparatoin |  | Congchi Zhang |  | V011 | PropReject |

**[Description]**:

Relevant to the RAN2 discussion and the note below in 38.300

NOTE 3: UAI can be sent from the source gNB to the target gNB to exchange applicability reporting referring to the configurations from the source gNB.

The current UAI in handover preparation information message only conveys what has been reported by UE in the last UAI report. In the context of applicability reporting procedure, that means the target gNB may only be informed about the recently changed applicability information (i.e., delta instead of complete appliability information). It can be easily resolved by clarifying that the UAI in handover preparation information can also contain the complete applicability information not only the last reported ones.

**[Proposed Change]**:

***ueAssistanceInformation***

Includes for each UE assistance feature the information last reported by the UE, if any. It may also include any applicability information that has been reported by the UE.

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropReject”. We think the proposed changed is not aligned with the RAN2#128 agreement below, which was taken exactly so that no further enhancements are made for applicability reporting in case of handovers.

“5 Source cell UAI (as is) can be sent from source cell to target cell using existing signaling. No further optimizations will be considered in RAN2 related to UAI.”

[Lenovo-Congchi-v024]: At the time when the agreement was made, companies including us assumed the UAI can convey the complete list, but seemed not correct when looking at the Stage 3 description (which happens somethimes). We still believe it’s something benefit from both NW and UE point of view, so the target gNB can configure properly considering the received complete (in)applicability info.

This issue was raised also by some other company before, and the same issue is raised in O300, while a different solution is provided. Although we believe allowing UAI to convey complete (in)applicability info would be the most straightforward way to fix, it could be worth some clarification in the next meeting. Would it be ok to at least mark it as ToDo instead? We can then prepare a Tdoc to list the possible fixes.

[Samsung-Beom-v028]: We agree the issue but can check if the proposed change is the best.

# H007

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H007 | AIML | 1 | Logged measurement configuration modification and release | R2-25xxxx | Dawid |  | vnnn | ToDo |

**[Description]**:

Currently it is possible for the network to provide an updated logged measurement configuration (i.e. reusing the same *csi-LoggedMeasurementConfigId* as already included in the UE conifguration). This may lead to ambiguity in the collected data, i.e. once it is reported it will be unclear to which configuration this data referred to.

Similarly, the UE currently does not discard the collected data for a certain logging conifguration even when this conifguraiton is relased. If the UE is subsequently configured with a new clogging configuration later on, reusing the ID of the previously released configuration, similar ambiguity exists. Such situation should be avoided.

**[Proposed Change]**:

It is proposed to clarify that when the UE receives a modified logging conifguration or releases a logging configuration, the discards the logged data related to the modified/released logging configuration. This way the ambiguity mentioned above can be avoided.

#### 5.5x.1.3 Reception of *CSI-LoggedMeasurementConfig* by the UE

Upon receiving *csi-LoggedMeasurementConfigToAddModList* in the *csi-MeasConfig* of a serving cell, the UE shall:

1> for each CSI logged measurement configuration included in *csi-LoggedMeasurementConfigToAddModList*:

2> if the current UE configuation for the serving cell includes the CSI logged measurement configuration associated with the given *csi-LoggedMeasurementConfigId*:

3> discard any logged measurement entries included in *VarCSI-LogMeasReport* for this *csi-LoggedMeasurementConfigId*;

3> modify the CSI logged measurement configuration according to the configuration received in *csi-LoggedMeasurementConfigToAddModList*;

2> else:

3> add the received CSI logged measurement configuration to the UE configuration;

2> if the cell identity of the serving cell for which the measurements shall be logged, i.e. the serving cell associated with the serving cell configuration in which *csi-LoggedMeasurementConfigToAddModList* is received, is not included in an entry in *csi-LogMeasInfoCellList* in *VarCSI-LogMeasReport*:

3> include an entry in *csi-LogMeasInfoCellList* in *VarCSI-LogMeasReport*;

3> set *cellId* to the CGI of the serving cell associated with the serving cell configuration in which *csi-LoggedMeasurementConfigToAddModList* is received, if available. If the CGI is not available for that cell, set *cellId* to the ARFCN and PCI of the serving cell;

2> if not already present, include an entry in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport* and set *refCSI-LoggedMeasurementConfigId* to the *csi-LoggedMeasurementConfigId* associated to the CSI logged measurement configuration included in *csi-LoggedMeasurementConfigToAddModList*;

2> perform measurements logging as specified in 5.5x.3.2.

### 5.5x.2 Release of Network-Side Logged Measurement Configuration

#### 5.5x.2.1 General

The purpose of this procedure is to release the logged measurement configuration for network-side data collection.

#### 5.5x.2.2 Initiation

Upon receiving *csi-LoggedMeasurementConfigToReleaseList*, the UE shall:

1> for each *csi-LoggedMeasurementConfigId* included in *csi-LoggedMeasurementConfigToReleaseList* associated with a serving cell:

2> if the current UE configuration for the associated serving cell includes a CSI logged measurement configuration with the associated *csi-LoggedMeasurementConfigId*:

3> discard any logged measurement entries included in *VarCSI-LogMeasReport* for this *csi-LoggedMeasurementConfigId*;

3> release the concerned CSI logged measurement configuration.

**[Comments]**:

[WI CR rapporteur-v022] We suggest that companies discuss this RIL in Tdocs, since the UE behaviour would be somewhat modified.

# V100

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Xnnn | AIML | 1 |  |  | Boubacar |  | V009 | PropReject |

**[Description]**: The UE action of determining the applicability status is missing. Maybe need to add the UE action somewhere.

#### 5.3.5.3 Reception of an *RRCReconfiguration* by the UE

----------------------skip--------------------

5> include an entry in the *applicabilityInfoReportList* and set the content as follows:

6> set the *csi-ReportConfigId* within *applicabilityInfoReportId* to the corresponding *reportConfigId*;

6> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityInfoReportId*;

6> if the *applicabilityStatus* is set to inapplicable:

The UE action of determining the applicability status is missing. Maybe need to add the UE action somewhere.

**[Proposed Change]**:

**[Comments]**:

[WI CR rapporteur-v022] We assume that the “UE action” means how the UE determines applicability. We do not think it’s needed to add in 38.331 how the UE determines the applicability, since that is anyway up to UE implementation. Thus, it’s sufficient if it’s captured in stage 2.

# V101

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Xnnn | AIML | 1 |  |  | Boubacar |  | V009 | PropAgree |

**[Description]**: It is better to change to “configuration” to “entry”

#### 5.5.4.2 Event A1 (Serving becomes better than threshold)

The variables in the formula are defined as follows:

***Ms*** is the measurement result of the serving cell, not taking into account any offsets.

***Hys*** is the hysteresis parameter for this event (i.e. *hysteresis* as defined within *reportConfigNR* for this event, or *hysteresis* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

***Thresh*** is the threshold parameter for this event (i.e. *a1-Threshold* as defined within *reportConfigNR* for this event, or *threshold* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

***Ms*** is expressed in dBm in case of RSRP, or in dB in case of RSRQ and RS-SINR.

**[Proposed Change]**:

The variables in the formula are defined as follows:

***Ms*** is the measurement result of the serving cell, not taking into account any offsets.

***Hys*** is the hysteresis parameter for this event (i.e. *hysteresis* as defined within *reportConfigNR* for this event, or *hysteresis* as defined within *csi-LoggedMeasurementEventTriggerConfig* in an entry ~~configuration~~ in *csi-LoggedMeasurementConfigToAddModList* for this event).

**[Comments]**:

[WI CR rapporteur-v022] We changed the status from “ToDo” to “PropAgree”.

# V102

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Xnnn | AIML | 1 |  |  | Boubacar |  | V009 | Duplicate |

**[Description]**: It it better to “*threshold*” change to “*aboveThreshold*”

#### 5.5.4.2 Event A1 (Serving becomes better than threshold)

The variables in the formula are defined as follows:

***Ms*** is the measurement result of the serving cell, not taking into account any offsets.

***Hys*** is the hysteresis parameter for this event (i.e. *hysteresis* as defined within *reportConfigNR* for this event, or *hysteresis* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

***Thresh*** is the threshold parameter for this event (i.e. *a1-Threshold* as defined within *reportConfigNR* for this event, or *threshold* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

***Ms*** is expressed in dBm in case of RSRP, or in dB in case of RSRQ and RS-SINR.

**[Proposed Change]**:

#### 5.5.4.2 Event A1 (Serving becomes better than threshold)

The variables in the formula are defined as follows:

***Ms*** is the measurement result of the serving cell, not taking into account any offsets.

***Hys*** is the hysteresis parameter for this event (i.e. *hysteresis* as defined within *reportConfigNR* for this event, or *hysteresis* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

***Thresh*** is the threshold parameter for this event (i.e. *a1-Threshold* as defined within *reportConfigNR* for this event, or *aboveThreshold* *~~threshold~~* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

***Ms*** is expressed in dBm in case of RSRP, or in dB in case of RSRQ and RS-SINR.

**[Comments]**:

[WI CR rapporteur-v022]: This is a duplicate of N032.

# V103

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Xnnn | AIML | 1 |  |  | Boubacar |  | V009 | PropAgree |

**[Description]**: It is better to change to “configuration” to “entry”

#### 5.5.4.2 Event A1 (Serving becomes better than threshold)

The variables in the formula are defined as follows:

***Ms*** is the measurement result of the serving cell, not taking into account any offsets.

***Hys*** is the hysteresis parameter for this event (i.e. *hysteresis* as defined within *reportConfigNR* for this event, or *hysteresis* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

***Thresh*** is the threshold parameter for this event (i.e. *a1-Threshold* as defined within *reportConfigNR* for this event, or *threshold* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

***Ms*** is expressed in dBm in case of RSRP, or in dB in case of RSRQ and RS-SINR.

**[Proposed Change]**:

#### 5.5.4.2 Event A1 (Serving becomes better than threshold)

The variables in the formula are defined as follows:

***Ms*** is the measurement result of the serving cell, not taking into account any offsets.

***Hys*** is the hysteresis parameter for this event (i.e. *hysteresis* as defined within *reportConfigNR* for this event, or *hysteresis* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

***Thresh*** is the threshold parameter for this event (i.e. *a1-Threshold* as defined within *reportConfigNR* for this event, or *threshold* as defined within *csi-LoggedMeasurementEventTriggerConfig* in an entry ~~configuration~~ in *csi-LoggedMeasurementConfigToAddModList* for this event).

***Ms*** is expressed in dBm in case of RSRP, or in dB in case of RSRQ and RS-SINR.

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# V104

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Xnnn | AIML | 1 |  |  | Boubacar |  | V009 | Duplicate |

**[Description]**: It is better to change “*threshold* ” to “*belowThreshold*”

#### 5.5.4.3 Event A2 (Serving becomes worse than threshold)

***Thresh*** is the threshold parameter for this event (i.e. *a2-Threshold* as defined within *reportConfigNR* for this event, or *threshold* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

***Ms*** is expressed in dBm in case of RSRP, or in dB in case of RSRQ and RS-SINR.

**[Proposed Change]**:

#### 5.5.4.3 Event A2 (Serving becomes worse than threshold)

***Thresh*** is the threshold parameter for this event (i.e. *a2-Threshold* as defined within *reportConfigNR* for this event, or *belowThreshold* *~~threshold~~* as defined within *csi-LoggedMeasurementEventTriggerConfig* in a configuration in *csi-LoggedMeasurementConfigToAddModList* for this event).

***Ms*** is expressed in dBm in case of RSRP, or in dB in case of RSRQ and RS-SINR.

**[Comments]**:

[WI CR rapporteur-v022]: This is a duplicate of N032.

# V105

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Xnnn | AIML | 1 |  |  | Boubacar |  | V009 | PropReject |

**[Description]**: I think if both *logMeasReport and csi-LogMeasReport are included, the “*logged measurement entries included in the *csi-LogMeasInfoList”* is not discarded.

### 5.7.10 UE Information

1> if the *csi-LogMeasReportReq* is present:

2> if *VarCSI-LogMeasReport* includes one or more logged measurement entries, set the contents of the *csi-LogMeasReport* in the *UEInformationResponse* message as follows:

3> include the *csi-LogMeasInfoCellList* and set it to include one or more entries from the *VarCSI-LogMeasReport* starting from the entries logged first;

3> if the *VarCSI-LogMeasReport* includes one or more additional logged measurement entries that are not included within the *UEInformationResponse* message:

4> include the *csi-MoreLogMeasAvailable*;

1> if the *logMeasReport* is included in the *UEInformationResponse*:

2> submit the *UEInformationResponse* message to lower layers for transmission via SRB2;

2> discard the logged measurement entries included in the *logMeasInfoList* from *VarLogMeasReport* upon successful delivery of the *UEInformationResponse* message confirmed by lower layers;

**[Proposed Change]**:

### 5.7.10 UE Information

1> if the *csi-LogMeasReportReq* is present:

2> if *VarCSI-LogMeasReport* includes one or more logged measurement entries, set the contents of the *csi-LogMeasReport* in the *UEInformationResponse* message as follows:

3> include the *csi-LogMeasInfoCellList* and set it to include one or more entries from the *VarCSI-LogMeasReport* starting from the entries logged first;

3> if the *VarCSI-LogMeasReport* includes one or more additional logged measurement entries that are not included within the *UEInformationResponse* message:

4> include the *csi-MoreLogMeasAvailable*;

1> if the *logMeasReport* is included in the *UEInformationResponse*:

2> submit the *UEInformationResponse* message to lower layers for transmission via SRB2;

2> discard the logged measurement entries included in the *logMeasInfoList* from *VarLogMeasReport* upon successful delivery of the *UEInformationResponse* message confirmed by lower layers;

1> else if *csi-LogMeasReport* is included in the *UEInformationResponse*:

2> submit the *UEInformationResponse* message to lower layers for transmission via SRBX;

2> discard the logged measurement entries included in the *csi-LogMeasInfoList* from *VarCSI-LogMeasReport* upon successful delivery of the *UEInformationResponse* message confirmed by lower layers;

**[Comments]**:

[WI CR rapporteur-v022]: The proposed change is already included in the agreed CR from the previous meeting (and also in the AIML review file).

# V106

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Xnnn | AIML | 1 |  |  | Boubacar |  | V009 | PropAgree |

**[Description]**: The field description of *cellid* is be update for better readability.

### 6.2.2

***cellId***

This field indicates the CGI of the cell in which the logging of the measurements included within *csi-LogMeasInfoList* was performed. If the CGI is not available, this field indicates the PCI-ARFCN-NR.

**[Proposed Change]**:

***cellId***

This field indicates the CGI of the cell in which the logging of the measurements included within *csi-LogMeasInfoList* was performed. If the CGI is not available, this field indicates the PCI-ARFCN-NRof the cell.

**[Comments]**:

[WI CR rapporteur-v020]: We changed the status from “ToDo” to “PropAgree”.

# X001

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X001 | AIML | 1 | Applicability report via UAI |  | Xing |  | V012 | ToDo |

**[Description]**:

The initial applicability report should be done via *RRCReconfigutaionComplete* rather than UAI. After the initial report, if applicability doesn’t change, UE shall not trigger UAI upon being configured to report assistance information of applicability.

**[Proposed Change]**:

#### 5.7.4.2 Initiation

…

A UE capable of providing assistance information related to the applicability of configurations subject to the applicability determination procedure may initiate upon change of the applicability of the configurations subject to the applicability determination procedure. A UE capable of providing assistance information related to the applicability of configurations subject to the applicability determination procedure shall initiate the procedure if it was configured to do so, upon determining that the applicability of a configuration subject to the applicability determination procedure changed from applicable to inapplicable.

**[Comments]**:

[Ericsson-v022]: We agree with the intention of the change and we think it can be combine with further changes in this paragraph, to also align better with the agreed capabilities. We propose the following alternative change:

A UE capable of applicability reporting and/or its updates (via *RRCReconfigurationComplete* or via *UEAssistanceInformation* message may initiate the procedure if it was configured to report the applicability in *UEAssistanceInformation* message, upon change of the applicability of the configurations subject to the applicability determination procedure. A UE capable of applicability reporting and/or its updates (via *RRCReconfigurationComplete* or via *UEAssistanceInformation* message shall initiate the procedure if it was configured to report the applicability in *UEAssistanceInformation* message, upon determining that the applicability of a configuration subject to the applicability determination procedure changed from *applicable* to *inapplicable.*

# X002

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X002 | AIML | 1 | UAI trigger |  | Xing |  | V012 | PropAgree |

**[Description]**:

We understand UE shall trigger UAI upon low power, full buffer or buffer threshold reaced. The report trigger is not up to UE implementation.

**[Proposed Change]**:

#### 5.7.4.2 Initiation

…

A UE capable of logging measurements for network-side data collection shall initiate the procedure if it was configured to do so, upon determining that it has entered a low power state, or upon determining that the buffer reserved for the logging of radio measurements for network-side data collection has become full.

A UE capable of logging measurements for network-side data collection and of providing a data availability indication based on a buffer threshold shall initiate the procedure if it was configured to do so, upon determining that the amount of logged data related to radio measurements for network-side data collection reached a configured buffer threshold.

**[Comments]**:

[Ericsson-v022]: We agree with the proposed changes, since it is important that the network receives these indications from the UE and they are not a preference of the UE.

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# X003

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X003 | AIML | 1 |  | R2-25xxx | Xing |  | V012 | ToDo |

**[Description]**:

The presence of *dataCollectionCandidateConfigList* can implicitly indicate UE is about to collect data. There is no need to intorduce separate indication. On the other hand, start indication is useless without *dataCollectionCandidateConfigList*, since NW is not aware of the required configuration. If UE has already obtained the required configuration for data collection, UE doesn’t need to indicate start indication alone. We propose to remove the *dataCollectionStart.*

**[Proposed Change]**:

#### 5.7.4.3 Actions related to transmission of *UEAssistanceInformation* message

…

1> if transmission of the *UEAssistanceInformation* message is initiated to report the UE preference to be configured with radio resources to perform UE-side data collection according to 5.7.4.2:

2> include *dataCollectionPreference* in this *UEAssistanceInformation* message;

2> if the UE prefers to be configured with radio resources to perform data collection:

3> for each serving cell configured with candidate UE-side data collection configuration(s) in *dataCollectionCandidateConfigList* and for which the UE has one or more preferred radio resource configuration(s):

4> include an entry in *dataCollectionPreferredConfigurationList* and set the content as follows:

5> set the *dataCollectionServCellIndex* to the serving cell index of the cell;

5> include in *dataCollectionCandidateIdList* the *dataCollectionCandidateConfigId* associated with preferred configuration(s) from *dataCollectionCandidateConfigParameterList*;

#### – *UEAssistanceInformation*

The *UEAssistanceInformation* message is used for the indication of UE assistance information to the network.

Signalling radio bearer: SRB1, SRB3

RLC-SAP: AM

Logical channel: DCCH

Direction: UE to Network

*UEAssistanceInformation message*

-- ASN1START

-- TAG-UEASSISTANCEINFORMATION-START

DataCollectionPreference-r19 ::= SEQUENCE {

dataCollectionPreferredConfigurationList-r19 SEQUENCE (SIZE (1..maxNrofServingCells)) OF DataCollectionCandidateList-r19 OPTIONAL,

dataCollectionStopConfigurationList-r19 SEQUENCE (SIZE (1..maxNrofServingCells)) OF DataCollectionList-r19 OPTIONAL,

...

}

-- TAG-UEASSISTANCEINFORMATION-STOP

-- ASN1STOP

|  |
| --- |
| *UEAssistanceInformation* field descriptions |
|  |

**[Comments]**:

[WI CR rapporteur-v020]: We agree that at the moment it is unclear when the start indication should be included by the UE, without including a list of preferred candidates. Several interpretations were discussed in the past, e.g. (i) the UE sends just a start indication and then it expects to receive the list of candidates from the network, or (ii) the UE sends just a start indication with the meaning that it can accept any data collection configuration that the NW may decide to provide (that assumes the list of candidates is optional on top of the start/stop procedure). In any case, we agree that this topic needs further discussion based on Tdocs.

# X004

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X004 | AIML | 1 | candidate data collection configuration | R2-25xxxx | Xing |  | V012 | ToDo |

**[Description]**:

Currently, the inference related configuration and candidate data collection configuration is provided via a list in *OtherConfig*. However, with a list, NW has to provide the full list upon modification or release for a certain entry. ToAddMod structure can be used to reduce the signalling upon modification or release for a certain entry.

**[Proposed Change]**:

Change current structure of candidate data collection configuration to ToAddMod structure. UE behaviour should also be added.

**[Comments]**:

[WI CR rapporteur-v022]: Since this implies several changes, companies are encouraged to discuss this topic and provide TPs in Tdocs, as for the similar RILs C083/C084.

# Z001

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z001 | AIML | 1 | Preference suggestion to the functionality that is reported as inapplicable in RRCReconfiguration | R2-25xxxx | Fei |  | V015 | ToDo |

**[Description]**:

Currently, for the applicability reporting via *RRCReconfigurationComplete*, it has been defined as below:

4> for each entry within *applicabilitySetConfigList* associated with the concerned serving cell, that is included in the *RRCReconfiguration* message or for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either *RRCReconfigurationComplete* or *UEAssistanceInformation*):

5> include an entry in the *applicabilityInfoReportList* and set the content as follows:

6> set the *applicabilitySetId* within *applicabilityInfoReportId* to the corresponding *applicabilitySetConfigId*;

6> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityInfoReportId*;

6> if the *applicabilityStatus* is set to inapplicable*:*

7> if the UE prefers to release the concerned *ApplicabilitySetConfig*, include *releaseConfigurationPreference*;

For the functionality that is provided in the *OtherConfig* whose applicability has been changed, there is no need for UE to provide the information of the *releaseConfigurationPrefernece* in the *RRCReconfigurationComplete* as there is no hurt to keep it still in the otherConfig.

**[Proposed Change]**:

#### 5.3.5.3 Reception of an *RRCReconfiguration* by the UE

/omit for short/

2> if the UE has at least one stored application layer measurement configuration with *appLayerIdleInactiveConfig* configured which has not been successfully transmitted since entering RRC\_CONNECTED state:

3> include *measConfigReportAppLayerAvailable*;

2> if this *RRCReconfiguration* message is applied due to an LTM cell switch execution procedure according to clause 5.3.5.18.6:

3> include in the *appliedLTM-CandidateId* the *LTM-CandidateId* of the applied LTM candidate configuration;

2> if, for at least one serving cell, the *RRCReconfiguration* message includes in *csi-ReportConfigToAddModList* at least one *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*; or

2> if the *RRCReconfiguration* message includes at least one entry in *applicabilityConfigList* within *applicabilityReportConfig*; or

2> if, for at least one serving cell, the UE is configured with at least one *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*, for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either in *RRCReconfigurationComplete* or *UEAssistanceInformation*); or

2> if the UE is configured with at least one entry in *applicabilitySetConfigList* for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either in *RRCReconfigurationComplete* or *UEAssistanceInformation*):

3> for each serving cell associated with any of the configurations above, include an entry in the *applicabilityReportList* and set the content as follows:

4> set the *applicabilityCellId* to the serving cell index of the cell;

4> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*, that is included in the *RRCReconfiguration* message or for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either *RRCReconfigurationComplete* or *UEAssistanceInformation*):

5> include an entry in the *applicabilityInfoReportList* and set the content as follows:

6> set the *csi-ReportConfigId* within *applicabilityInfoReportId* to the corresponding *reportConfigId*;

6> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityInfoReportId*;

6> if the *applicabilityStatus* is set to inapplicable:

7> if the UE prefers to release the concerned *CSI-ReportConfig*, include *releaseConfigurationPreference*;

4> for each entry within *applicabilitySetConfigList* associated with the concerned serving cell, that is included in the *RRCReconfiguration* message or for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either *RRCReconfigurationComplete* or *UEAssistanceInformation*):

5> include an entry in the *applicabilityInfoReportList* and set the content as follows:

6> set the *applicabilitySetId* within *applicabilityInfoReportId* to the corresponding *applicabilitySetConfigId*;

6> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityInfoReportId*;

**[Comments]**:

[WI CR rapporteur-v022]: We think this issue should be discussed based on Tdocs, since there are changes in the UE behaviour for applicability reporting in RRCReconfigurationComplete versus UAI.

# Z002

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z002 | AIML | 1 | Preference suggestion to the functionality that is reported as inapplicable in UAI | R2-25xxxx | Fei |  | V015 | ToDo |

**[Description]**:

Currently, for the applicability reporting via UAI, it has been defined as below:

5> for each entry within *applicabilitySetConfigList* that changed applicability status, associated with the concerned serving cell:

6> include an entry in the *applicabilityReportConfigIdList* and set the content as follows:

7> set the *applicabilitySetId* within *applicabilityReportConfigId* to the corresponding *applicabilitySetConfigId*;

7> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityReportConfigId*;

7> if the *applicabilityStatu*s is set to inapplicable:

8> if the UE prefers to release the concerned *ApplicabilitySetConfig*, include *releaseConfigurationPreference*;

For the functionality that is provided in the *OtherConfig* whose applicability has been changed, there is no need for UE to provide the information of the *releaseConfigurationPrefernece* in the UAIas there is no hurt to keep it still in the otherConfig.

**[Proposed Change]**:

#### 5.7.4.3 Actions related to transmission of *UEAssistanceInformation* message

/omit for short/

1> if transmission of the *UEAssistanceInformation* message is initiated to report assistance information about the applicability of configurations subject to applicability determination procedure according to 5.7.4.2:

2> include *applicabilityReportList* in this *UEAssistanceInformation* message;

2> for each serving cell:

3> if the cell is configured with at least one *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction* , or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*,for which the applicability status has changed; or

3> if the associated serving cell index was included in an entry in *applicabilityConfigList* within *applicabilityReportConfig* and the applicability status for at least one of the associated entries in *applicabilitySetConfigList* has changed:

4> include an entry in *applicabilityReportList* in the *UEAssistanceInformation* message, and set the content as follows:

5> set the *applicabilityCellId* to the serving cell index of the cell;

5> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*, for which the applicability status has changed:

6> include an entry in the *applicabilityReportConfigIdList* and set the content as follows:

7> set the *csi-ReportConfigId* within *applicabilityReportConfigId* to the corresponding *reportConfigId*;

7> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityReportConfigId*;

7> if the *applicabilityStatus* is set to *inapplicable*:

8> if the UE prefers to release the concerned *CSI-ReportConfig*, include *releaseConfigurationPreference*;

5> for each entry within *applicabilitySetConfigList* that changed applicability status, associated with the concerned serving cell:

6> include an entry in the *applicabilityReportConfigIdList* and set the content as follows:

7> set the *applicabilitySetId* within *applicabilityReportConfigId*, AIML to the corresponding *applicabilitySetConfigId*;

7> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityReportConfigId*;

**[Comments]**:

[WI CR rapporteur-v022]: As for RIL Z001, we suggest to discuss this in Tdocs.

# Z003

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z003 | AIML | 1 | The UE behaviour for NW side data collection configuration when going to RRC-Idle. |  | Fei |  | V015 | PropAgree |

**[Description]**:

### 5.3.11 UE actions upon going to RRC\_IDLE

The UE shall:

/omit for short/

1> except if going to RRC\_IDLE was triggered by inter-RAT cell reselection while the UE is in RRC\_INACTIVE or RRC\_IDLE or when selecting an inter-RAT cell while T311 was running or when selecting an E-UTRA cell for EPS fallback for IMS voice as specified in 5.4.3.5:

2> if the UE is capable of L2 U2N Remote UE:

3> enter RRC\_IDLE, and perform either cell selection as specified in TS 38.304 [20], or relay selection as specified in clause 5.8.15.3, or both;

2> else:

3> enter RRC\_IDLE and perform cell selection as specified in TS 38.304 [20];

1> release *CSI-LoggedMeasurementConfig*, if configured;

1> release *loggedDataCollectionAssistanceConfig*, if configured;

1> discard the logged measurement entries included in *VarCSI-LogMeasReport,* if any;

As the NW side data collection only can work in RRC-Connected state, there is no need to explicitly describe the releasing of the *CSI-LoggedMeasurementConfig,* and *loggedDataCollectionAssistanceConfig* in the UE actions going to RRC\_IDLE*,* anyway all those configurations will be released.

**[Proposed Change]**:

Remove yellow highlighted part from the specification directly..

**[Comments]**:

[WI CR Rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”.

# Z004

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z004 |  | Class 1 | The timing point of logging the cell Id and configuration Id for the data collection | R2-25xxxx | Fei |  | V015 | ToDo |

**[Description]**:

In the current description, the logging of cell Id information and configuration Id information at the timing point when UE receiving the configuration, please see below:

#### 5.5x.1.3 Reception of *CSI-LoggedMeasurementConfig* by the UE

Upon receiving *csi-LoggedMeasurementConfigToAddModList* in the *csi-MeasConfig* of a serving cell, the UE shall:

1> for each CSI logged measurement configuration included in *csi-LoggedMeasurementConfigToAddModList*:

2> if the current UE configuation for the serving cell includes the CSI logged measurement configuration associated with the given *csi-LoggedMeasurementConfigId*:

3> modify the CSI logged measurement configuration according to the configuration received in *csi-LoggedMeasurementConfigToAddModList*;

2> else:

3> add the received CSI logged measurement configuration to the UE configuration;

2> if the cell identity of the serving cell for which the measurements shall be logged, i.e. the serving cell associated with the serving cell configuration in which *csi-LoggedMeasurementConfigToAddModList* is received, is not included in an entry in *csi-LogMeasInfoCellList* in *VarCSI-LogMeasReport*:

3> include an entry in *csi-LogMeasInfoCellList* in *VarCSI-LogMeasReport*;

3> set *cellId* to the CGI of the serving cell associated with the serving cell configuration in which *csi-LoggedMeasurementConfigToAddModList* is received, if available. If the CGI is not available for that cell, set *cellId* to the ARFCN, AIML and PCI of the serving cell;

2> if not already present, include an entry in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport* and set *refCSI-LoggedMeasurementConfigId* to the *csi-LoggedMeasurementConfigId* associated to the CSI logged measurement configuration included in *csi-LoggedMeasurementConfigToAddModList*;

2> perform measurements logging as specified in 5.5x.3.2.

It is not workable for the case that UE receiving the data logging configuration when AS buffer has been full since, at that moment, UE cannot establish any entries in the AS buffer.

**[Proposed Change]**:

It is proposed that UE to add new entries when logging the first piece of entry instead of receiving the logging configuration , that means, this can be captured in 5.5x.3.2,please see below:

#### 5.5x.1.3 Reception of *CSI-LoggedMeasurementConfig* by the UE

Upon receiving *csi-LoggedMeasurementConfigToAddModList* in the *csi-MeasConfig* of a serving cell, the UE shall:

1> for each CSI logged measurement configuration included in *csi-LoggedMeasurementConfigToAddModList*:

2> if the current UE configuation for the serving cell includes the CSI logged measurement configuration associated with the given *csi-LoggedMeasurementConfigId*:

3> modify the CSI logged measurement configuration according to the configuration received in *csi-LoggedMeasurementConfigToAddModList*;

2> else:

3> add the received CSI logged measurement configuration to the UE configuration;

2> if the cell identity of the serving cell for which the measurements shall be logged, i.e. the serving cell associated with the serving cell configuration in which *csi-LoggedMeasurementConfigToAddModList* is received, is not included in an entry in *csi-LogMeasInfoCellList* in *VarCSI-LogMeasReport*:

3> include an entry in *csi-LogMeasInfoCellList* in *VarCSI-LogMeasReport*;

3> set *cellId* to the CGI of the serving cell associated with the serving cell configuration in which *csi-LoggedMeasurementConfigToAddModList* is received, if available. If the CGI is not available for that cell, set *cellId* to the ARFCN and PCI of the serving cell;

2> if not already present, include an entry in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport* and set *refCSI-LoggedMeasurementConfigId* to the *csi-LoggedMeasurementConfigId* associated to the CSI logged measurement configuration included in *csi-LoggedMeasurementConfigToAddModList*;

2> perform measurements logging as specified in 5.5x.3.2.

### 5.5x.2 Release of Network-Side Logged Measurement Configuration

#### 5.5x.2.1 General

The purpose of this procedure is to release the logged measurement configuration for network-side data collection.

#### 5.5x.2.2 Initiation

Upon receiving *csi-LoggedMeasurementConfigToReleaseList*, the UE shall:

1> for each CSI logged measurement configuration ID included in *csi-LoggedMeasurementConfigToReleaseList* associated with a serving cell:

2> if the current UE configuration for the associated serving cell includes a CSI logged measurement configuration with the associated CSI logged measurement configuration ID:

3> release the CSI logged measurement configuration.

### 5.5x.3 Measurements logging

#### 5.5x.3.1 General

This procedure specifies the logging of available measurements by a UE in RRC\_CONNECTED that has a logged measurement configuration for network-side data collection.

#### 5.5x.3.2 Initiation

The UE shall:

1> for each CSI logged measurement configurationassociated with a *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport,* perform the logging of measurements for the serving cell associated with *cellId*, in accordance with the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*:

2> if the *csi-LoggedMeasurementEventTriggerConfig* is not included and the buffer for network-side data collection is not full:

3> perform the logging at regular time intervals, according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;

2> if the *csi-LoggedMeasurementEventTriggerConfig* is included and the buffer for network-side data collection is not full:

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the entering condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the entering condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:

4> perform the logging at regular time intervals, according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the leaving condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the leaving condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:

4> stop performing the logging for the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*;

2> when performing the logging:

3> if the cell identity of the serving cell for which the measurements shall be logged, i.e. the serving cell associated with the serving cell configuration in which *csi- LoggedMeasurementConfigToAddModList* is received, is not included in an entry in *csi-LogMeasInfoCellList* in *VarCSI-LogMeasReport*:

4> include an entry in *csi-LogMeasInfoCellList* in *VarCSI-LogMeasReport*;

4> set *cellId* to the CGI of the serving cell associated with the serving cell configuration in which *csi-LoggedMeasurementConfigToAddModList* is received, if available. If the CGI is not available for that cell, set *cellId* to the ARFCN and PCI of the serving cell;

3> if not already present, include an entry in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport* and set *refCSI-LoggedMeasurementConfigId* to the *csi- LoggedMeasurementConfigId* associated to the CSI logged measurement configuration included in *csi-LoggedMeasurementConfigToAddModList*;

3> for each CSI logged measurement configuration associated to *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport*:

4> set the *csi-RS-MeasResultList* and *SSB-MeasResultList* to include the quantities the UE is logging measurements for, upon receiving the quantities from the lower layers;

4> if the time between the measurements that are logged and included in this instance of *csi-LogMeasInfoList* and the measurements for the previous instance of *csi-LogMeasInfoList* with the same *refCSI-LoggedMeasurementConfigId*, for the same serving cell, is longer than the logging periodicity (if configured) or the periodicity of the measurement resources (if the logging periodicity is not configured):

5> set the *timeGap* to *true*;

2> when the memory reserved for the logged measurement information for data collection becomes full, stop logging;

2> when the memory reserved for the logged measurement information for data collection is no longer full, resume logging.

**[Comments]**:

[WI CR rapporteur-v022]: It seems the proposed change is addressing bad network implementations, where the network would send a logging configuration although it knows that the UE’s buffer is full, since the UE reports this to the NW. In our view, both the current procedural text and the proposed change work, so we propose that this is discussed in a Tdoc, especially since it may also have some relation to J008/J009.

# Z005

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z005 |  | Class 1 | Start/stop performing L1 measurement in Logged NW side data collection | R2-25xxxx | Fei |  | V015 | ToDo |

**[Description]**:

In the current description of text procedure for performing logging, it only describes UE behaviour regrading logging or not logging , please see below:

#### 5.5x.3.2 Initiation

The UE shall:

1> for each CSI logged measurement configurationassociated with a *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport,* perform the logging of measurements for the serving cell associated with *cellId*, in accordance with the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*:

2> if the *csi-LoggedMeasurementEventTriggerConfig* is not included and the buffer, AIML for network-side data collection is not full:

3> perform the logging at regular time intervals, according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;

2> if the *csi-LoggedMeasurementEventTriggerConfig* is included and the buffer for network-side data collection is not full:

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the entering condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the entering condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:

4> perform the logging at regular time intervals, according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the leaving condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the leaving condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:

4> stop performing the logging for the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*;

2> when performing the logging:

3> for each CSI logged measurement configuration associated to *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport*:

4> set the *csi-RS-MeasResultList* and *SSB-MeasResultList* to include the quantities the UE is logging measurements for, upon receiving the quantities from the lower layers;

4> if the time between the measurements that are logged and included in this instance of *csi-LogMeasInfoList* and the measurements for the previous instance of *csi-LogMeasInfoList* with the same *refCSI-LoggedMeasurementConfigId*, for the same serving cell, is longer than the logging periodicity (if configured) or the periodicity of the measurement resources (if the logging periodicity is not configured):

5> set the *timeGap* to *true*;

2> when the memory reserved for the logged measurement information for data collection becomes full, stop logging;

2> when the memory reserved for the logged measurement information for data collection is no longer full, resume logging.

Actually, this procedure need have the inter-layer interaction when UE performing the logging or stop logging: for example, to indicate the lower layers to stop the L1 measurement, or start the L1 measurement, otherwise, PHY layer need always perform the Layer 1 measurement no matter whether higher layer to log the data or not, this is really power-consuming.

**[Proposed Change]**:

#### 5.5x.3.2 Initiation

The UE shall:

1> for each CSI logged measurement configurationassociated with a *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport,* perform the logging of measurements for the serving cell associated with *cellId*, in accordance with the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*:

2> if the *csi-LoggedMeasurementEventTriggerConfig* is not included and the buffer, AIML for network-side data collection is not full:

3> instruct lower layer to start the L1 measurement in accordance with the corresponding CSI logged measurement configuration as specified in TS 38.214 [19];

3> perform the logging at regular time intervals, according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;

2> if the *csi-LoggedMeasurementEventTriggerConfig* is included and the buffer for network-side data collection is not full:

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the entering condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the entering condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:

4> instruct lower layer to start the L1 measurement in accordance with the corresponding CSI logged measurement configuration as specified in TS 38.214 [19];

4> perform the logging at regular time intervals, according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the leaving condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the leaving condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:

4> instruct lower layer to stop the L1 measurement in accordance with the corresponding CSI logged measurement configuration as specified in TS 38.214 [19];

4> stop performing the logging for the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*;

2> when performing the logging:

3> for each CSI logged measurement configuration associated to *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport*:

4> set the *csi-RS-MeasResultList* and *SSB-MeasResultList* to include the quantities the UE is logging measurements for, upon receiving the quantities from the lower layers;

4> if the time between the measurements that are logged and included in this instance of *csi-LogMeasInfoList* and the measurements for the previous instance of *csi-LogMeasInfoList* with the same *refCSI-LoggedMeasurementConfigId*, for the same serving cell, is longer than the logging periodicity (if configured) or the periodicity of the measurement resources (if the logging periodicity is not configured):

5> set the *timeGap* to *true*;

2> when the memory reserved for the logged measurement information for data collection becomes full, instruct lower layer to stop the L1 measurement as specified in TS 38.214 [19],stop logging;

2> when the memory reserved for the logged measurement information for data collection is no longer full, instruct lower layer to start the L1 measurement as specified in TS 38.214 [19], resume logging.

**[Comments]**:

[WI CR rapporteur-v022]: We agree that the proposed changes are a possible solution to allow the UE to start/stop measurements and not only start/stop logging. However, we think this issue should be discussed in Tdocs, since it may have implications in the UE behaviour and we may also need to wait for RAN1 input.

# Z006

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z006 |  | Class 1 | The field description of *applicabilityReportList* in *RRCReconfigurationComplete* |  | Fei |  | V015 | ToDo |

**[Description]**:

In the current field description of *applicabilityReportList* in *RRCReconfigurationComplete*

|  |
| --- |
| ***applicabilityReportList***  The applicability reports related to prediction configurations and sets of parameters for prediction configurations. |

The applicability report list in *RRCReconfigurationComplete* only includes the applicability information, not include any parameter for prediction configurations...

#### – *ApplicabilityReportList*

The IE *ApplicabilityReportList* comprises information that the UE reports to gNB related to the applicability of configurations subject to the applicability determination procedure.

***ApplicabilityReportList* information element**

-- ASN1START

-- TAG-APPLICABILITYREPORTLIST-START

ApplicabilityReportList-r19 ::= SEQUENCE (SIZE (1..maxNrofServingCells) OF ApplicabilityReport-r19

ApplicabilityReport-r19 ::= SEQUENCE {

applicabilityCellId-r19 ServCellIndex,

applicabilityInfoReportList-r19 SEQUENCE (SIZE (1..maxNrofApplicabilityReports-r19)) OF ApplicabilityInfoReport-r19 OPTIONAL,

...

}

ApplicabilityInfoReport-r19 ::= SEQUENCE {

applicabilityInfoReportId-r19 CHOICE {

csi-ReportConfigId-r19 CSI-ReportConfigId,

applicabilitySetId-r19 ApplicabilitySetConfigId-r19,

spare2 NULL,

spare1 NULL

},

applicabilityStatus-r19 ENUMERATED {applicable, inapplicable},

releaseConfigurationPreference-r19 ENUMERATED {true} OPTIONAL,

...

}

-- TAG-APPLICABILITYREPORTLIST-STOP

-- ASN1STOP

**[Proposed Change]**:

The yellow highlighted wording shall be removed from the field description

**[Comments]**: Nokia. We do not need to update this as the following was agreed in RAN2#130:

|  |
| --- |
| (RRC 7) RAN2 assumes applicability report for Option B (sets of inference related parameters) can be included in both RRCReconfigurationComplete and UAI (i.e., same as Option A). This can be revisited based on RAN1 conclusions/final signaling design. |

[WI CR rapporteur-v022]: We agree with Nokia that we should not delete the highlighted part, which is intended to cover option B. However, to address the concern raised by ZTE and avoid confusion when reading the field description, we propose the following change instead.

|  |
| --- |
| ***applicabilityReportList***  The applicability reports related to prediction configurations and related to sets of parameters for prediction configurations. |

# H003

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H003 | AIML | 2 | Configuration for UE data collection | R2-25xxxx | Dawid |  | v017 | ToDo |

**[Description]**:

This is related to the following EN captured ubnder CSI-ReportConfig information element code:

Editor's Note: FFS whether/how to group the parameters (and whether/how to update the field descriptions) for prediction, monitoring, and UE-side data collection based on the beam management and CSI prediction use cases.

Currently “configurationForChannelPrediction-r19” is used for both inference and UE data collection. However, the notation “ForChannelPrediction” and “predictionConfiguration-r19” suggests that this parameter is only for inference. We think it is better to add a new parameter for data collection (e.g. configurationForUE-DataCollection-r19) and make “configurationForChannelPrediction-r19” applicable only for inference

**[Proposed Change]**:

#### – *CSI-ReportConfig*

The IE *CSI-ReportConfig* is used to configure a periodic or semi-persistent report sent on PUCCH on the cell in which the *CSI-ReportConfig* is included, or to configure a semi-persistent or aperiodic report sent on PUSCH triggered by DCI received on the cell in which the *CSI-ReportConfig* is included (in this case, the cell on which the report is sent is determined by the received DCI). See TS 38.214 [19], clause 5.2.1.

*CSI-ReportConfig* information element

-- ASN1START

-- TAG-CSI-REPORTCONFIG-START

CSI-ReportConfig ::= SEQUENCE {

reportConfigId CSI-ReportConfigId,

carrier ServCellIndex OPTIONAL, -- Need S

resourcesForChannelMeasurement CSI-ResourceConfigId,

csi-IM-ResourcesForInterference CSI-ResourceConfigId OPTIONAL, -- Need R

nzp-CSI-RS-ResourcesForInterference CSI-ResourceConfigId OPTIONAL, -- Need R

reportConfigType CHOICE {

periodic SEQUENCE {

reportSlotConfig CSI-ReportPeriodicityAndOffset,

pucch-CSI-ResourceList SEQUENCE (SIZE (1..maxNrofBWPs)) OF PUCCH-CSI-Resource

},

semiPersistentOnPUCCH SEQUENCE {

reportSlotConfig CSI-ReportPeriodicityAndOffset,

pucch-CSI-ResourceList SEQUENCE (SIZE (1..maxNrofBWPs)) OF PUCCH-CSI-Resource

},

semiPersistentOnPUSCH SEQUENCE {

reportSlotConfig ENUMERATED {sl5, sl10, sl20, sl40, sl80, sl160, sl320},

reportSlotOffsetList SEQUENCE (SIZE (1.. maxNrofUL-Allocations)) OF INTEGER(0..32),

p0alpha P0-PUSCH-AlphaSetId

},

aperiodic SEQUENCE {

reportSlotOffsetList SEQUENCE (SIZE (1..maxNrofUL-Allocations)) OF INTEGER(0..32)

}

},

reportQuantity CHOICE {

none NULL,

cri-RI-PMI-CQI NULL,

cri-RI-i1 NULL,

cri-RI-i1-CQI SEQUENCE {

pdsch-BundleSizeForCSI ENUMERATED {n2, n4} OPTIONAL -- Need S

},

cri-RI-CQI NULL,

cri-RSRP NULL,

ssb-Index-RSRP NULL,

cri-RI-LI-PMI-CQI NULL

},

reportFreqConfiguration SEQUENCE {

cqi-FormatIndicator ENUMERATED { widebandCQI, subbandCQI } OPTIONAL, -- Need R

pmi-FormatIndicator ENUMERATED { widebandPMI, subbandPMI } OPTIONAL, -- Need R

csi-ReportingBand CHOICE {

subbands3 BIT STRING(SIZE(3)),

subbands4 BIT STRING(SIZE(4)),

subbands5 BIT STRING(SIZE(5)),

subbands6 BIT STRING(SIZE(6)),

subbands7 BIT STRING(SIZE(7)),

subbands8 BIT STRING(SIZE(8)),

subbands9 BIT STRING(SIZE(9)),

subbands10 BIT STRING(SIZE(10)),

subbands11 BIT STRING(SIZE(11)),

subbands12 BIT STRING(SIZE(12)),

subbands13 BIT STRING(SIZE(13)),

subbands14 BIT STRING(SIZE(14)),

subbands15 BIT STRING(SIZE(15)),

subbands16 BIT STRING(SIZE(16)),

subbands17 BIT STRING(SIZE(17)),

subbands18 BIT STRING(SIZE(18)),

...,

subbands19-v1530 BIT STRING(SIZE(19))

} OPTIONAL -- Need S

} OPTIONAL, -- Need R

timeRestrictionForChannelMeasurements ENUMERATED {configured, notConfigured},

timeRestrictionForInterferenceMeasurements ENUMERATED {configured, notConfigured},

codebookConfig CodebookConfig OPTIONAL, -- Need R

dummy ENUMERATED {n1, n2} OPTIONAL, -- Need R

groupBasedBeamReporting CHOICE {

enabled NULL,

disabled SEQUENCE {

nrofReportedRS ENUMERATED {n1, n2, n3, n4} OPTIONAL -- Need S

}

},

cqi-Table ENUMERATED {table1, table2, table3, table4-r17} OPTIONAL, -- Need R

subbandSize ENUMERATED {value1, value2},

non-PMI-PortIndication SEQUENCE (SIZE (1..maxNrofNZP-CSI-RS-ResourcesPerConfig)) OF PortIndexFor8Ranks OPTIONAL, -- Need R

...,

[[

semiPersistentOnPUSCH-v1530 SEQUENCE {

reportSlotConfig-v1530 ENUMERATED {sl4, sl8, sl16}

} OPTIONAL -- Need R

]],

[[

semiPersistentOnPUSCH-v1610 SEQUENCE {

reportSlotOffsetListDCI-0-2-r16 SEQUENCE (SIZE (1.. maxNrofUL-Allocations-r16)) OF INTEGER(0..32) OPTIONAL, -- Need R

reportSlotOffsetListDCI-0-1-r16 SEQUENCE (SIZE (1.. maxNrofUL-Allocations-r16)) OF INTEGER(0..32) OPTIONAL -- Need R

} OPTIONAL, -- Need R

aperiodic-v1610 SEQUENCE {

reportSlotOffsetListDCI-0-2-r16 SEQUENCE (SIZE (1.. maxNrofUL-Allocations-r16)) OF INTEGER(0..32) OPTIONAL, -- Need R

reportSlotOffsetListDCI-0-1-r16 SEQUENCE (SIZE (1.. maxNrofUL-Allocations-r16)) OF INTEGER(0..32) OPTIONAL -- Need R

} OPTIONAL, -- Need R

reportQuantity-r16 CHOICE {

cri-SINR-r16 NULL,

ssb-Index-SINR-r16 NULL

} OPTIONAL, -- Need R

codebookConfig-r16 CodebookConfig-r16 OPTIONAL -- Need R

]],

[[

cqi-BitsPerSubband-r17 ENUMERATED {bits4} OPTIONAL, -- Need R

groupBasedBeamReporting-v1710 SEQUENCE {

nrofReportedGroups-r17 ENUMERATED {n1, n2, n3, n4}

} OPTIONAL, -- Need R

codebookConfig-r17 CodebookConfig-r17 OPTIONAL, -- Need R

sharedCMR-r17 ENUMERATED {enable} OPTIONAL, -- Need R

csi-ReportMode-r17 ENUMERATED {mode1, mode2} OPTIONAL, -- Need R

numberOfSingleTRP-CSI-Mode1-r17 ENUMERATED {n0, n1, n2} OPTIONAL, -- Need R

reportQuantity-r17 CHOICE {

cri-RSRP-Index-r17 NULL,

ssb-Index-RSRP-Index-r17 NULL,

cri-SINR-Index-r17 NULL,

ssb-Index-SINR-Index-r17 NULL

} OPTIONAL -- Need R

]],

[[

semiPersistentOnPUSCH-v1720 SEQUENCE {

reportSlotOffsetList-r17 SEQUENCE (SIZE (1.. maxNrofUL-Allocations-r16)) OF INTEGER(0..128) OPTIONAL, -- Need R

reportSlotOffsetListDCI-0-2-r17 SEQUENCE (SIZE (1.. maxNrofUL-Allocations-r16)) OF INTEGER(0..128) OPTIONAL, -- Need R

reportSlotOffsetListDCI-0-1-r17 SEQUENCE (SIZE (1.. maxNrofUL-Allocations-r16)) OF INTEGER(0..128) OPTIONAL -- Need R

} OPTIONAL, -- Need R

aperiodic-v1720 SEQUENCE {

reportSlotOffsetList-r17 SEQUENCE (SIZE (1.. maxNrofUL-Allocations-r16)) OF INTEGER(0..128) OPTIONAL, -- Need R

reportSlotOffsetListDCI-0-2-r17 SEQUENCE (SIZE (1.. maxNrofUL-Allocations-r16)) OF INTEGER(0..128) OPTIONAL, -- Need R

reportSlotOffsetListDCI-0-1-r17 SEQUENCE (SIZE (1.. maxNrofUL-Allocations-r16)) OF INTEGER(0..128) OPTIONAL -- Need R

} OPTIONAL -- Need R

]],

[[

codebookConfig-v1730 CodebookConfig-v1730 OPTIONAL -- Need R

]],

[[

groupBasedBeamReporting-v1800 SEQUENCE {

reportingMode-r18 ENUMERATED {jointULDL, onlyUL}

} OPTIONAL, -- Need R

reportQuantity-r18 TDCP-r18 OPTIONAL, -- Need R

codebookConfig-r18 CodebookConfig-r18 OPTIONAL, -- Need R

csi-ReportSubConfigToAddModList-r18 SEQUENCE (SIZE (1..maxNrofCSI-ReportSubconfigPerCSI-ReportConfig-r18)) OF CSI-ReportSubConfig-r18

OPTIONAL, -- Need N

csi-ReportSubConfigToReleaseList-r18 SEQUENCE (SIZE (1..maxNrofCSI-ReportSubconfigPerCSI-ReportConfig-r18)) OF CSI-ReportSubConfigId-r18

OPTIONAL -- Need N

]],

[[

nrofReportedRS-v19xy ENUMERATED {n6, n8} OPTIONAL, -- Need R

reportQuantity-r19 ReportQuantity-r19 OPTIONAL, -- Need R

predictionConfiguration-r19 CHOICE {

csi-InferencePrediction-r19 ENUMERATED {true},

configurationForChannelPrediction-r19 SEQUENCE {

resourcesForChannelPrediction-r19 CSI-ResourceConfigId OPTIONAL, -- Need R

associatedIdForChannelPrediction-r19 AssociatedId-r19 OPTIONAL, -- Need R

associatedIdForChannelMeasurement-r19 AssociatedId-r19 OPTIONAL, -- Need R

nrofReportedPredicted-RS-r19 ENUMERATED {n1, n2, n3, n4} OPTIONAL, -- Need R

nrofTimeInstance-r19 ENUMERATED {n1, n2, n4, n8} OPTIONAL, -- Need R

timeGap-r19 ENUMERATED {ms10, ms20, ms40, ms80, ms160, spare3, spare2, spare1} OPTIONAL, -- Need R

...

},

configurationForChannelMonitoring-r19 SEQUENCE {

refToPredictionConfig-r19 CSI-ReportConfigId,

nrofBestBeamForMonitoring-r19 ENUMERATED {n1, n2} OPTIONAL, -- Need R

nrofTransmissionOccasion-r19 ENUMERATED {n1, n3, n7, n15} OPTIONAL, -- Need R

timeInstanceFor-RS-PAI-r19 ENUMERATED {n1, n2, n8, spare1} OPTIONAL, -- Need R

mappingToResourcesForChannelPrediction-r19 BIT STRING (SIZE (1..maxNrofNZP-CSI-RS-ResourcesPerSet)) OPTIONAL, -- Need R

timeInstanceFor-SGCS-r19 ENUMERATED {n1, spare3, spare2, spare1} OPTIONAL, -- Need R

...

},

configurationForUE-DataCollection-r19 SEQUENCE {

resourcesForChannelPrediction-r19 CSI-ResourceConfigId OPTIONAL, -- Need R

associatedIdForChannelPrediction-r19 AssociatedId-r19 OPTIONAL, -- Need R

associatedIdForChannelMeasurement-r19 AssociatedId-r19 OPTIONAL, -- Need R

nrofTimeInstance-r19 ENUMERATED {n1, n2, n4, n8} OPTIONAL, -- Need R

timeGap-r19 ENUMERATED {ms10, ms20, ms40, ms80, ms160, spare3, spare2, spare1} OPTIONAL, -- Need R

...

}

} OPTIONAL -- Need R

]]

}

PortIndexFor8Ranks ::= CHOICE {

portIndex8 SEQUENCE{

rank1-8 PortIndex8 OPTIONAL, -- Need R

rank2-8 SEQUENCE(SIZE(2)) OF PortIndex8 OPTIONAL, -- Need R

rank3-8 SEQUENCE(SIZE(3)) OF PortIndex8 OPTIONAL, -- Need R

rank4-8 SEQUENCE(SIZE(4)) OF PortIndex8 OPTIONAL, -- Need R

rank5-8 SEQUENCE(SIZE(5)) OF PortIndex8 OPTIONAL, -- Need R

rank6-8 SEQUENCE(SIZE(6)) OF PortIndex8 OPTIONAL, -- Need R

rank7-8 SEQUENCE(SIZE(7)) OF PortIndex8 OPTIONAL, -- Need R

rank8-8 SEQUENCE(SIZE(8)) OF PortIndex8 OPTIONAL -- Need R

},

portIndex4 SEQUENCE{

rank1-4 PortIndex4 OPTIONAL, -- Need R

rank2-4 SEQUENCE(SIZE(2)) OF PortIndex4 OPTIONAL, -- Need R

rank3-4 SEQUENCE(SIZE(3)) OF PortIndex4 OPTIONAL, -- Need R

rank4-4 SEQUENCE(SIZE(4)) OF PortIndex4 OPTIONAL -- Need R

},

portIndex2 SEQUENCE{

rank1-2 PortIndex2 OPTIONAL, -- Need R

rank2-2 SEQUENCE(SIZE(2)) OF PortIndex2 OPTIONAL -- Need R

},

portIndex1 NULL

}

PortIndex8::= INTEGER (0..7)

PortIndex4::= INTEGER (0..3)

PortIndex2::= INTEGER (0..1)

TDCP-r18 ::= SEQUENCE {

delayDSetofLengthY-r18 SEQUENCE (SIZE (1.. maxNrofdelayD-r18)) OF DelayD,

phaseReporting-r18 ENUMERATED {enable} OPTIONAL -- Need R

}

DelayD ::= ENUMERATED { symb4, slot1, slot2, slot3, slot4, slot5, slot6, slot10 }

CSI-ReportSubConfig-r18 ::= SEQUENCE {

reportSubConfigId-r18 CSI-ReportSubConfigId-r18,

reportSubConfigParams-r18 CHOICE {

a1-parameters SEQUENCE {

codebookSubConfig-r18 CodebookConfig OPTIONAL, -- Need R

portSubsetIndicator-r18 CHOICE {

p2 BIT STRING (SIZE (2)),

p4 BIT STRING (SIZE (4)),

p8 BIT STRING (SIZE (8)),

p12 BIT STRING (SIZE (12)),

p16 BIT STRING (SIZE (16)),

p24 BIT STRING (SIZE (24)),

p32 BIT STRING (SIZE (32))

} OPTIONAL, -- Need R

non-PMI-PortIndication-r18 SEQUENCE (SIZE (1..maxNrofNZP-CSI-RS-ResourcesPerConfig)) OF PortIndexFor8Ranks

OPTIONAL -- Need R

},

a2-parameters SEQUENCE {

nzp-CSI-RS-ResourceList-r18 SEQUENCE (SIZE (1..maxNrofNZP-CSI-RS-ResourcesPerSet)) OF NZP-CSI-RS-ResourceIndex-r18

}

} OPTIONAL, -- Need R

powerOffset-r18 INTEGER(0..23) OPTIONAL -- Need R

}

NZP-CSI-RS-ResourceIndex-r18 ::= INTEGER (0..maxNrofNZP-CSI-RS-ResourcesPerSet-1-r18)

ReportQuantity-r19 ::= CHOICE {

none-BM-r19 NULL,

none-CSI-r19 NULL,

p-CRI-r19 NULL,

p-SSB-Index-r19 NULL,

p-CRI-RSRP-r19 NULL,

p-SSB-Index-RSRP-r19 NULL,

rs-PAI-r19 NULL,

sgcs-r19 NULL

}

-- TAG-CSI-REPORTCONFIG-STOP

-- ASN1STOP

Editor's Note: FFS the value range of the fields *nrofTimeInstance-r19, timeGap-r19, timeInstanceFor-RS-PAI-r19,* and *timeInstanceFor-SGCS-r19*, based on RAN1 progress.

Editor's Note: FFS whether/how to group the parameters (and whether/how to update the field descriptions) for prediction, monitoring, and UE-side data collection based on the beam management and CSI prediction use cases.

**[Comments]**:

[WI CR rapporteur-v022]: We agree that the suggested change is a possibility to group the parameters and thus make the type of configuration clear. In the past we received input from some companies that we should avoid redundancy (the parameters for inference and those for data collection are the same), so we removed the separate CHOICE branch for UE-side data collection. Thus, we propose to discuss this issue in Tdocs, as for RIL N021, which is related.

# H008

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H008 | AIML | 2 | Configuration restrictions in predictionConfiguration-r19 |  | Dawid |  | V017 | ToDo |

**[Description]**:

Since the parameters under predictionConfiguration-r19 are for different purposes, they can only be configured for certain report quantities (i.e. when reportQuantity-r19 is present and set to specific values)

**[Proposed Change]**:

Add a field description for predictionConfiguration-r19 and capture the following configuration restrictions:

* configurationForChannelPrediction-r19 can only be configured when reportQuantity-r19 is present and indicates inference for BM (i.e., reportQuantity-r19 is set to 'p-CRI-r19', 'p-SSB-Index’-r19, 'p-CRI-RSRP-r19' or 'p-SSB-Index-RSRP-r19').
* configurationForChannelMonitoring-r19 can only be configured when reportQuantity-r19 is present and indicates monitoring for BM or monitoring for CSI prediction (i.e., reportQuantity-r19 is set to 'rs-PAI-r19' or 'sgcs-r19').
* configurationForUE-DataCollection-r19 can only be configured when reportQuantity-r19 is present and indicates UE-side data collection for BM (i.e., reportQuantity-r19 is set to 'none-BM-r19').

**[Comments]**:

[WR CI rapporteur-v022]: We agree with the intention of the proposal, but we can decide the exact wording once it is settled how to change the ASN.1 structure for inference/monitoring/UE-side data collection (in RILs H003, N021).

# H009

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H009 | AIML | 1 | Interactions with PHY for NW-side data collection | R2-25xxxx | Dawid |  | V017 | ToDo |

**[Description]**:

This issue is related to an LS which RAN2 sent to RAN1 in R2-2506545. In particular, it is currently unclear whether any PHY-RRC ionteractions need to be captured in RRC and in RAN1 specifications. Currenlty there are two possibilities for NW-side data collection configurations:

Periodic logging

L3 event-based logging (either based on A1 or A2 event, i.e. L3-cell RSRP>threshold or L3-cell RSRP<threshold

In our understanding, the responsibilities between the layers should be as follows:

PHY layer specifications should capture that the UE performs measurements and generates L1-RSRP/CRI based on data collection configuration in *CSI-LoggedMeasurementConfig*

PHY layer provides the generated measurement results to the RRC based on the configured periodicity

For periodic logging, PHY layer should perform measurements as soon as the conifguration is provided to the UE and should provide the results to RRC according to the configured periodicity

For event-based logging, PHY layer should only perform measurements and provide them to RRC when event conditions are met

RRC should be responsible for logging the measurements as provided by PHY layers and then for providing them to the network etc.

In my understandning, the RRC part of the procedure should be modified as below. PHY layer specs should then capture that the UE peforms measurements and provides them to upper layers, upon being instructed by upper layers to do so (which is pending RAN1 discussion and actions based on RAN2 LS).

**[Proposed Change]**:

### 5.5x.3 Measurements logging

#### 5.5x.3.1 General

This procedure specifies the logging of available measurements by a UE in RRC\_CONNECTED that has a logged measurement configuration for network-side data collection.

#### 5.5x.3.2 Initiation

The UE shall:

1> for each CSI logged measurement configurationassociated with a *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport,* perform the logging of measurements for the serving cell associated with *cellId*, in accordance with the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*:

2> if the *csi-LoggedMeasurementEventTriggerConfig* is not included and the buffer for network-side data collection is not full:

3> instruct lower layers to perform the measurements at regular time intervals, according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;

3> perform logging of the measurement results provided by lower layers;

2> if the *csi-LoggedMeasurementEventTriggerConfig* is included and the buffer for network-side data collection is not full:

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the entering condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the entering condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:4> instruct lower layers to perform measurements at regular time intervals, according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;

4> perform logging of the measurement received from lower layers;

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the leaving condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the leaving condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:

4> instruct lower layers not to perform measurements for the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*;

2> when performing the logging:

3> for each CSI logged measurement configuration associated to *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport*:

4> set the *csi-RS-MeasResultList* and *SSB-MeasResultList* to include the quantities the UE is logging measurements for, upon receiving the quantities from the lower layers;

4> if the time between the measurements that are logged and included in this instance of *csi-LogMeasInfoList* and the measurements for the previous instance of *csi-LogMeasInfoList* with the same *refCSI-LoggedMeasurementConfigId*, for the same serving cell, is longer than the logging periodicity (if configured) or the periodicity of the measurement resources (if the logging periodicity is not configured):

5> set the *timeGap* to *true*;

2> when the memory reserved for the logged measurement information for data collection becomes full, stop logging;

2> when the memory reserved for the logged measurement information for data collection is no longer full, resume logging.

**[Comments]**:

[WI CR rapporteur-v022]: The same issue is raised in RIL Z005 with slightly different proposed changes, so we suggest to discuss this issue in a Tdoc, together with Z005.

# H010

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H010 | AIML | 1 | Report configuration type in ApplicabilitySetConfig-r19 | R2-25xxxx | Dawid |  | V017 | ToDo |

**[Description]**:

In our understanding, reportConfigType in ApplicabilitySetConfig-r19 needs to only indicate the type of the report, i.e. periodic, semi persistent on PUCCH/PUSCH or aperiodic. Additional information such as reportSlotConfig etc. is not required for the UE to determine applicability, so is not needed in this configuration.

**[Proposed Change]**:

ApplicabilitySetConfig-r19 ::= SEQUENCE {

applicabilitySetConfigId-r19 ApplicabilitySetConfigId-r19 OPTIONAL, -- Need R

resourcesForChannelMeasurement CSI-ResourceConfigId OPTIONAL, -- Need R

resourcesForChannelPrediction-r19 CSI-ResourceConfigId OPTIONAL, -- Need R

associatedIdForChannelMeasurement-r19 AssociatedId-r19 OPTIONAL, -- Need R

associatedIdForChannelPrediction-r19 AssociatedId-r19 OPTIONAL, -- Need R

reportQuantity-r19 ReportQuantity-r19 OPTIONAL, -- Need R

reportConfigType-r19 ENUMERATED {periodic, semiPersistentOnPUCCH, semiPersistentOnPUSCH, aperiodic } OPTIONAL, -- Need R

nrofReportedPredictedRS-r19 ENUMERATED {n1, n2, n3, n4} OPTIONAL, -- Need R

nrofTimeInstance-r19 ENUMERATED {n1, n2, n4, n8} OPTIONAL, -- Need R

timeGap-r19 ENUMERATED {ms10, ms20, ms40, ms80, ms160, spare3, spare2, spare1} OPTIONAL, -- Need R

...

}

**[Comments]**:

[WI CR rapporteur-v022]: We suggest to discuss this in Tdocs, since the interpretation reflected in the proposed changes is not obvious from the RAN1#121 agreement below, which assumes that the parameters are reused:

Agreement

For option B of applicability check, RAN 1 assumes that at least the following RRC parameters are to be reused:

* For both BM-Case 1 and BM-Case 2:
  + *associatedIDforSetA-r19, resourcesForSetA-r19, resourcesForChannelMeasurement, associatedIDforSetB-r19, reportQuantity-r19, reportConfigType, nrofreportedpredictedrs-r19*
* For BM-Case 2:
  + *TimeGap-r19, nroftimeinstance-r19,*
* Note: this doesn’t imply the associated ID is always present

# Z007

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z007 |  | Class 1 | The field description of CSI-LogMeasReportReq | R2-25xxxx | Fei |  | V017 | ToDo |

**[Description]**:

According to RAN2 agreements achieved in RAN2#131bis meeting

1. Multiplexing of legacy SON/MDT report and AIML logged data is not supported in the same UE information response message. Up to the network to ensure that data is not requested at the same time

But there is nowhere to capture this agreement in the RRC spec so that the data from SON/MDT and NW side data collection can be retrieved simultaneously from specification perspective

In our understanding, it shall be captured in the field description of CSI-LogMeasReportConfig.

**[Proposed Change]**:

***csi-LogMeasReportReq***

This field is used to indicate whether the UE shall report information about CSI radio measurements logged in RRC\_CONNECTED for network-side data collection. This information element shall be absent if the *logMeasReportReq* is present.

**[Comments]**:

[WI CR rapporteur-v022]: We suggest to discuss this issue in a Tdoc. There were discussions in the past on whether there should be clear restrictions on the NW, by adding them in the field descriptions but some companies were not in favour of it. In the current specification, not allowing multiplexing is captured in the procedural text from clause 5.7.10.3 below, by using “else if”, which excludes the case of having both SON/MDT reports and AIML reports in the same *UEInformationResponse* message. It can be discussed further if this procedural text is sufficient or not to capture the RAN2 agreement.

1> if the *logMeasReport* is included in the *UEInformationResponse*:

2> submit the *UEInformationResponse* message to lower layers for transmission via SRB2;

2> discard the logged measurement entries included in the *logMeasInfoList* from *VarLogMeasReport* upon successful delivery of the *UEInformationResponse* message confirmed by lower layers;

1> else if *csi-LogMeasReport* is included in the *UEInformationResponse*:

2> submit the *UEInformationResponse* message to lower layers for transmission via SRBX;

2> discard the logged measurement entries included in the *csi-LogMeasInfoList* from *VarCSI-LogMeasReport* upon successful delivery of the *UEInformationResponse* message confirmed by lower layers;

1> else:

2> submit the *UEInformationResponse* message to lower layers for transmission via SRB1.

[Samsung-Beom-v028]: We think the procedure text is not enough. It could be interpretated NW is allowed to request both data and then UE inlcudes both data and transmits them via SRB2. So, we also suggest capture some text in field description. We are okay with Z007, but can be reworded in accordance to the agreement:

***csi-LogMeasReportReq***

This field is used to indicate whether the UE shall report information about CSI radio measurements logged in RRC\_CONNECTED for network-side data collection. Network shall not include both *csi-LogMeasReportReq* and *logMeasReportReq* in the same message.

# Z008

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z008 |  | Class 2 | Size optimization for measurement result list for logged data reporting |  | Fei |  | V017 | PropAgree |

**[Description]**:

In the current measurement report list in UEInformationResponse, it has been defined in as below:

CSI-LogMeasInfoCell-r19 ::= SEQUENCE {

cellId-r19 CHOICE {

cellGlobalId-r19 CGI-Info-Logging-r16,

pci-arfcn-r19 PCI-ARFCN-NR-r16

},

csi-LogMeasInfoList-r19 SEQUENCE (SIZE (1..maxLogCSI-MeasReport-r19)) OF CSI-LogMeasInfo-r19,

...

}

CSI-LogMeasInfo-r19 ::= SEQUENCE {

refCSI-LoggedMeasurementConfigId-r19 CSI-LoggedMeasurementConfigId-r19,

csi-RS-MeasResultList-r19 SEQUENCE (SIZE (1..maxNrofNZP-CSI-RS-Resources)) OF CSI-RS-MeasResult-r19 OPTIONAL,

ssb-MeasResultList-r19 SEQUENCE (SIZE (1..maxNrofSSBs-r16)) OF SSB-MeasResult-r19 OPTIONAL,

timeGap-r19 ENUMERATED {true} OPTIONAL, ...

}

For each instance of CSI-LogMeasInfo, the *refCSI-LoggedMeasurementConfigId-r19* shall be reported which dramatically increases the signaling overhead. It is suggested to report only one *refCSI-LoggedMeasurementConfigId* with a number of measurement results from this *refCSI-LoggedMeasurementConfigId.*

**[Proposed Change]**:

CSI-LogMeasInfoCell-r19 ::= SEQUENCE {

cellId-r19 CHOICE {

cellGlobalId-r19 CGI-Info-Logging-r16,

pci-arfcn-r19 PCI-ARFCN-NR-r16

},

csi-LogMeasInfoMeasConfigList-r19 SEQUENCE (SIZE (1..maxNrofLoggedMeasurementConfigurations-r19)) OF CSI-LogMeasInfoMeasConfig-r19,

...

}

CSI-LogMeasInfoMeasConfig-r19 ::= SEQUENCE { refCSI-LoggedMeasurementConfigId-r19 CSI-LoggedMeasurementConfigId-r19,

csi-LogMeasInfoList-r19 SEQUENCE (SIZE (1..maxLogCSI-MeasReport-r19)) OF CSI-LogMeasInfo-r19,

...

}

CSI-LogMeasInfo-r19 ::= SEQUENCE {

refCSI-LoggedMeasurementConfigId-r19 CSI-LoggedMeasurementConfigId-r19,

csi-RS-MeasResultList-r19 SEQUENCE (SIZE (1..maxNrofNZP-CSI-RS-Resources)) OF CSI-RS-MeasResult-r19 OPTIONAL,

ssb-MeasResultList-r19 SEQUENCE (SIZE (1..maxNrofSSBs-r16)) OF SSB-MeasResult-r19 OPTIONAL,

timeGap-r19 ENUMERATED {true} OPTIONAL, ...

}

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”. Please note that there are other updates to the proposed changes that we will need to make as rapporteurs on top of the proposed ones, e.g. to align the procedural text with the new ASN.1.

# Z009

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z009 |  | Class 1 | The data logging is missing in general description of CSI-MeasConfig |  | Fei |  | V017 | PropAgree |

**[Description]**:

In the current general field description of CSI-MeasConfig, the CSI measurement for logging in missing.

**[Proposed Change]**:

#### – *CSI-MeasConfig*

The IE *CSI-MeasConfig* is used to configure CSI-RS (reference signals) belonging to the serving cell in which *CSI-MeasConfig* is included, channel state information reports to be transmitted on PUCCH on the serving cell in which *CSI-MeasConfig* is included , channel state information reports on PUSCH triggered by DCI received on the serving cell in which *CSI-MeasConfig* is included. See also TS 38.214 [19], clause 5.2, and the logging of channel state information for the serving cell in which *CSI-MeasConfig is* included as specified in 5.5.X.3

**[Comments]**:

[WI CR rapporteur-v022]: We changed the status from “ToDo” to “PropAgree”. Please note that we may make some additional small editorial changes when incorporating the proposed changes in the CR.

# Q510

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Nxxx | AIML | 1 | *csi-LogMeasAvailable* in the *RRCReconfigurationComplete* | N/A | Rajeev Kumar |  | V018 | PropReject |

**[Description]**:

The *csi-LogMeasAvailable* indication can be sent by the UE in any RRCReconfigurationComplete for MCG, not only for “*RRCReconfiguration* includes the *reconfigurationWithSync* in *spCellConfig* of an MCG”

**[Proposed Change]**:

1. set the content of the *RRCReconfigurationComplete* message as follows:

/\*omitted

2> if the *RRCReconfiguration* includes the *masterCellGroup*:

3> if the UE has logged measurement entries available in *VarCSI-LogMeasReport*: [RIL]: Q510, AIML

4> include *csi-LogMeasAvailable* in the *RRCReconfigurationComplete* message;

**[Comments]**:

[WI CR rapporteur-v022]: We think the following procedural text from clause 5.3.5.3 implemets correctly the relevant RAN2#129 agreement (“6. UE indicates availability of logged data during handover (i.e., within the RRCReconfigurationComplete message) (if data is retained in the UE).”):

1> set the content of the *RRCReconfigurationComplete* message as follows:

<...>

2> if the *RRCReconfiguration* includes the *reconfigurationWithSync* in *spCellConfig* of an MCG:

<...>

3> if the *RRCReconfiguration* includes *retainLoggedMeasurements*:

4> if the UE has logged measurement entries available in *VarCSI-LogMeasReport*:

5> include *csi-LogMeasAvailable* in the *RRCReconfigurationComplete* message;

# Q511

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Nxxx | AIML | 1 | *Release CSI-LoggedMeasurementConfig in RRC Re-establishment* | N/A | Rajeev Kumar |  | V018 | PropReject |

**[Description]**:

CSI logged measurement configuration should be release upon RRC reestablishment together with logged data (based on RAN2 agreement).

**[Proposed Change]**:

#### 5.3.7.2 Initiation

The UE initiates the procedure when one of the following conditions is met:

/\*omitted

1. release *successPSCell-Config* configured by the PCell, if configured;
2. release *CSI-LoggedMeasurementConfig*, if configured;

**[Comments]**:

[WI CR rapporteur-v022]: We agree that the CSI logged measurement configuration should be released upon RRC reestablishment. Please note that this is implicitly captured in the legacy procedural text from clause 5.3.7.2 below, by releasing *spCellConfig*, which contains *CSI-MeasConfig* within which the CSI logging configuration is sent. Thus, we do not think that the proposed changes are needed.

1> if UE is not configured with *attemptLTM-Switch*:

2> reset MAC;

2> release *spCellConfig*, if configured;

2> suspend all RBs, and BH RLC channels for IAB-MT, and Uu Relay RLC channels for L2 U2N Relay UE, except SRB0 and broadcast MRBs;

2> release the MCG SCell(s), if configured;

2> if MR-DC is configured:

3> perform MR-DC release, as specified in clause 5.3.5.10;

2> perform the LTM configuration release procedure for the MCG and the SCG as specified in clause 5.3.5.18.7;

# Q512

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Nxxx | AIML | 1 | *Release CSI-LoggedMeasurementConfig* following cell selection while T311 is running | N/A | Rajeev Kumar |  | V018 | PropReject |

**[Description]**:

CSI logged measurement configuration should be release following cell selection while T311 is running.

**[Proposed Change]**:

#### 5.3.7.3 Actions following cell selection while T311 is running

Upon selecting a suitable NR cell, the UE shall:

/\* omitted

1> else:

2> if UE is configured with *attemptCondReconfig*;or

2> if UE is configured with *attemptLTM-Switch*:

3> reset MAC;

3> release *spCellConfig*, if configured;

3> release the MCG SCell(s), if configured;

3> release *delayBudgetReportingConfig*, if configured and stop timer T342, if running;

3> release *overheatingAssistanceConfig* , if configured and stop timer T345, if running;

3> if MR-DC is configured:

4> perform MR-DC release, as specified in clause 5.3.5.10;

3> release *idc-AssistanceConfig*, if configured;

3> release *btNameList*, if configured;

3> release *wlanNameList*, if configured;

3> release *sensorNameList*, if configured;

3> release *drx-PreferenceConfig* for the MCG, if configured and stop timer T346a associated with the MCG, if running;

3> release *maxBW-PreferenceConfig* for the MCG, if configured and stop timer T346b associated with the MCG, if running;

3> release *maxCC-PreferenceConfig* for the MCG, if configured and stop timer T346c associated with the MCG, if running;

3> release *maxMIMO-LayerPreferenceConfig* for the MCG, if configured and stop timer T346d associated with the MCG, if running;

3> release *minSchedulingOffsetPreferenceConfig* for the MCG, if configured and stop timer T346e associated with the MCG, if running;

3> release *rlm-RelaxationReportingConfig* for the MCG, if configured and stop timer T346j associated with the MCG, if running;

3> release *bfd-RelaxationReportingConfig* for the MCG, if configured and stop timer T346k associated with the MCG, if running;

3> release *releasePreferenceConfig*, if configured and stop timer T346f, if running;

3> release *onDemandSIB-Request* if configured, and stop timer T350, if running;

3> release referenceTimePreferenceReporting, if configured;

3> release *sl-AssistanceConfigNR*, if configured;

3> release *obtainCommonLocation*, if configured;

3> release *scg-DeactivationPreferenceConfig*, if configured, and stop timer T346i, if running;

3> release *musim-GapAssistanceConfig*, if configured and stop timer T346h, if running;

3> release *musim-GapPriorityAssistanceConfig*, if configured;

3> release *musim-LeaveAssistanceConfig*, if configured;

3> release *musim-CapabilityRestrictionConfig*, if configured and stop timer T346n, if running;

3> release *propDelayDiffReportConfig*, if configured;

3> release *ul-GapFR2-PreferenceConfig*, if configured;

3> release *rrm-MeasRelaxationReportingConfig*, if configured;

3> release *maxBW-PreferenceConfigFR2-2*, if configured;

3> release *maxMIMO-LayerPreferenceConfigFR2-2*, if configured;

3> release *minSchedulingOffsetPreferenceConfigExt*, if configured;

3> release *aerial-FlightPathAvailabilityConfig*, if configured;

3> release *ul-TrafficInfoReportingConfig*, if configured, and stop all instances of timer T346l, if running;

3> release *loggedDataCollectionAssistanceConfig*, if configured;

3> discard the logged measurement entries included in *VarCSI-LogMeasReport,* if any;

3> release *applicabilityReportConfig*, if configured;

3> release *dataCollectionPreferenceConfig*, if configured;

3> release *CSI-LoggedMeasurementConfig*, if configured;

**[Comments]**:

[WI CR rapporteur-v022]: As also commented for RIL Q512, we do not think the proposed change is needed, since the UE releases the CSI logged configurations (sent within CSI-MeasConfig), when it releases the cell configurations. Copied from the text above:

3> release *spCellConfig*, if configured;

3> release the MCG SCell(s), if configured;

# L001

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| L001 | AIML | 1 | Update *sgcs-r19* to *csi-pai-r19* |  | Soo Kim |  | V020 | PropAgree |

**[Description]**: According to updated RAN1 higher layer parameter list (R1-2506622), UE-assisted performance monitoring quantity within *reportQuantity-r19* is chaged from *SGCS-r19* to *csi-pai-r19*.

**[Proposed Change]**: update the field name

|  |  |
| --- | --- |
| configurationForChannelMonitoring-r19 SEQUENCE {  refToPredictionConfig-r19 CSI-ReportConfigId,  nrofBestBeamForMonitoring-r19 ENUMERATED {n1, n2} OPTIONAL, -- Need R  nrofTransmissionOccasion-r19 ENUMERATED {n1, n3, n7, n15} OPTIONAL, -- Need R  timeInstanceFor-RS-PAI-r19 ENUMERATED {n1, n2, n8, spare1} OPTIONAL, -- Need R  mappingToResourcesForChannelPrediction-r19 BIT STRING (SIZE (1..maxNrofNZP-CSI-RS-ResourcesPerSet)) OPTIONAL, -- Need R  timeInstanceFor-CSI-PAI-r19 ENUMERATED {n1, spare3, spare2, spare1} OPTIONAL, -- Need R  ...  }  ..skip  ReportQuantity-r19 ::= CHOICE {  none-BM-r19 NULL,  none-CSI-r19 NULL,  p-CRI-r19 NULL,  p-SSB-Index-r19 NULL,  p-CRI-RSRP-r19 NULL,  p-SSB-Index-RSRP-r19 NULL,  rs-PAI-r19 NULL,  csi-PAI-r19 NULL  }  ..skip | |
| ***timeInstanceFor-RS-PAI***  Indicates the f-th time instance is used for the performance metric calculation. This field is present only if *reportQuantity-r19* is set to'rs-PAI-r19'. |
| ***timeInstanceFor-CSI-PAI***  Indicates the f-th doppler domain unit is used for the performance metric calculation for N4>1. This field is present only if *reportQuantity-r19* is set tocsi-PAI-r19'. |

**[Comments]**:

[WI CR rapporteur-v022]: Please note that the proposed changes for *timeInstanceFor-SGCS* are not aligned with the updated list of parameters from RAN1 in R1-2506622 (see part of the table below). We changed status from “ToDo” to “PropAgree” with the intention to capture in the CR only the changes referring to *sgcs-r19*.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| reportQuantity-r19 | new |  | none-CSI-r19' for UE-side data collection without CSI report  reportQuantity-r19 is set to ~~‘SGCS-r19’~~ 'csi-pai-r19' for UE-assisted performance monitoring report | ‘none-CSI-r19', ‘~~SGCS-r19’,~~ 'csi-pai-r19' |
| timeinstanceforsgcs-r19 | new |  | Indicate the f-th doppler domain unit is used for the performance metric calculation for N4>1 | [1, …, N4] |

# L002

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| L002 | AIML | 1 | Redundancy in Buffer Full Handling for CSI Logged Measurement |  | Soo Kim |  | V020 | ToDo |

**[Description]**:

Looking at this, the clause *“*if the *csi-LoggedMeasurementEventTriggerConfig* is included and the buffer for network-side data collection is not full*”* already implies that logging will resume once the buffer full condition is resolved, so the very last part (explicit resume operation) seems redundant.

**[Proposed Change]**:

5.5x.3.2 Initiation

The UE shall:

1> for each CSI logged measurement configurationassociated with a *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport,* perform the logging of measurements for the serving cell associated with *cellId*, in accordance with the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*:

2> if the *csi-LoggedMeasurementEventTriggerConfig* is not included and the buffer for network-side data collection is not full:

3> perform the logging at regular time intervals, according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;

2> if the *csi-LoggedMeasurementEventTriggerConfig* is included and the buffer for network-side data collection is not full:

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the entering condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the entering condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:

4> perform the logging at regular time intervals, according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the leaving condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the leaving condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:

4> stop performing the logging for the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*;

2> when performing the logging:

3> for each CSI logged measurement configuration associated to *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport*:

4> set the *csi-RS-MeasResultList* and *SSB-MeasResultList* to include the quantities the UE is logging measurements for, upon receiving the quantities from the lower layers;

4> if the time between the measurements that are logged and included in this instance of *csi-LogMeasInfoList* and the measurements for the previous instance of *csi-LogMeasInfoList* with the same *refCSI-LoggedMeasurementConfigId*, for the same serving cell, is longer than the logging periodicity (if configured) or the periodicity of the measurement resources (if the logging periodicity is not configured):

5> set the *timeGap* to *true*;

2> when the memory reserved for the logged measurement information for data collection becomes full, stop logging;

**[Comments]**:

# O300

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| O300 | AIML | 1 | Incomplete applicability info may be transferred during HO | Maybe | OPPO(Jiangsheng Fan) |  | V23 | ToDo |

**[Description]**:

2> for each serving cell:

3> if the cell is configured with at least one *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction* , or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*,for which the applicability status has changed; or

3> if the associated serving cell index was included in an entry in *applicabilityConfigList* within *applicabilityReportConfig* and the applicability status for at least one of the associated entries in *applicabilitySetConfigList* has changed: [RIL]: N034 AIML

4> include an entry in *applicabilityReportList* in the *UEAssistanceInformation* message, and set the content as follows:

5> set the *applicabilityCellId* to the serving cell index of the cell;

5> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*, for which the applicability status has changed [RIL]: O300 AIML:

6> include an entry in the *applicabilityReportConfigIdList*[RIL]: C076, AIML and set the content as follows:

7> set the *csi-ReportConfigId* within *applicabilityReportConfigId* to the corresponding *reportConfigId*;

7> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityReportConfigId*;

7> if the *applicabilityStatus* is set to *inapplicable*:

8> if the UE prefers to release the concerned *CSI-ReportConfig*, include *releaseConfigurationPreference*;

5> for each entry within *applicabilitySetConfigList* that changed applicability status [RIL]: O300 AIML, associated with the concerned serving cell:

6> include an entry in the *applicabilityReportConfigIdList* and set the content as follows:

7> set the *applicabilitySetId* within *applicabilityReportConfigId* [RIL]: C077, AIML to the corresponding *applicabilitySetConfigId*;

OPPO: The condition highlighted yellow means only the ID associated to an entry that the applicability status has changed can be reported, i.e. delta reporting is used in UAI for applicability change case. But this limitation may cause incomplete applicability info transferred during HO, because based on current spec, the content reported via UAI will be forwarded from source cell to target cell without modification in HO preparation message, which means only the change part of applicability info is forwarded to target cell. Rapp can decide whether Tdoc is needed or not to address this issue.

**[Proposed Change]**:

2> for each serving cell:

3> if the cell is configured with at least one *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction* , or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*,for which the applicability status has changed; or

3> if the associated serving cell index was included in an entry in *applicabilityConfigList* within *applicabilityReportConfig* and the applicability status for at least one of the associated entries in *applicabilitySetConfigList* has changed: [RIL]: N034 AIML

4> include an entry in *applicabilityReportList* in the *UEAssistanceInformation* message, and set the content as follows:

5> set the *applicabilityCellId* to the serving cell index of the cell;

5> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19* [RIL]: O300 AIML:

6> include an entry in the *applicabilityReportConfigIdList*[RIL]: C076, AIML and set the content as follows:

7> set the *csi-ReportConfigId* within *applicabilityReportConfigId* to the corresponding *reportConfigId*;

7> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityReportConfigId*;

7> if the *applicabilityStatus* is set to *inapplicable*:

8> if the UE prefers to release the concerned *CSI-ReportConfig*, include *releaseConfigurationPreference*;

5> for each entry within *applicabilitySetConfigList* [RIL]: O300 AIML, associated with the concerned serving cell:

6> include an entry in the *applicabilityReportConfigIdList* and set the content as follows:

7> set the *applicabilitySetId* within *applicabilityReportConfigId* [RIL]: C077, AIML to the corresponding *applicabilitySetConfigId*;

**[Comments]**:

# O301

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| O301 | AIML | 2 | Missing purpose for UE-side data collection request | R2-250x | OPPO(Jiangsheng Fan) |  | V23 | ToDo |

**[Description]**: The ‘start’ indicator in UAI is just an overall info. In R19 for UE sided model, we have two use cases, i.e. BM and CSI prediction, and we also agree to introduce candidate configuration negotiation proceudure for both cases. The contents of candidate configuration for BM and CSI prediction are not the same (even we still check with RAN1 for CSI prediciton), at least, assocated ID info is not needed for CSI predicition. In this sense, only ‘start’ indicator does not make sense, as the NW has no idea which use case this ‘start’ indicator refers to.

**[Proposed Change]**:

Option 1: Define ‘start’ indicator per use case.

Option 2: replace ‘start’ indicator parameter by ‘intended data collection purpose’ parameter.

**[Comments]**:

# A104

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| A104 | AIML | 1 | Simplification of procedure text on applicability reporting in Section 5.3.5.3/5.3.13.4/5.7.4.3 |  | Peng Cheng (Apple) |  | V024 |  |

**[Description]**: In existing applicability reporting procedure text (see below example text from of Section 5.3.5.3):

including *csi-InferencePrediction* is used to describle inference configuration of CSI prediction.

including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19* is used to describle inference configuration of beam management.

The description of beam management is complex. However, according to current IE structure of *predictionConfiguration-r19*, *configurationForChannelPredictio* is now only used for inference configuration of beam management*.* So*,* the description of beam management inference can be simplified to “including *~~reportQuantity-r19~~* ~~set to~~ *~~p-CRI-r19~~* ~~or~~ *~~p-SSB-Index-r19~~* ~~or~~ *~~p-CRI-RSRP-r19~~* ~~or~~ *~~p-SSB-Index-RSRP-r19~~ configurationForChannelPrediction*”.

===========related copy from Section 5.3.5.3=======================================

2> if, for at least one serving cell, the *RRCReconfiguration* message includes in *csi-ReportConfigToAddModList* at least one *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*; or [RIL]: A104, AIML

2> if the *RRCReconfiguration* message includes at least one entry in *applicabilityConfigList* within *applicabilityReportConfig*; or

2> if, for at least one serving cell, the UE is configured with at least one *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*, for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either in *RRCReconfigurationComplete* or *UEAssistanceInformation*); or [RIL]: A104, AIML

2> if the UE is configured with at least one entry in *applicabilitySetConfigList* for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either in *RRCReconfigurationComplete* or *UEAssistanceInformation*):

3> for each serving cell associated with any of the configurations above, include an entry in the *applicabilityReportList* and set the content as follows:

4> set the *applicabilityCellId* to the serving cell index of the cell;

4> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*, that is included in the *RRCReconfiguration* message or for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either *RRCReconfigurationComplete* or *UEAssistanceInformation*): [RIL]: A104, AIML

5> include an entry in the *applicabilityInfoReportList* and set the content as follows:

6> set the *csi-ReportConfigId* within *applicabilityInfoReportId* to the corresponding *reportConfigId*;

6> set the *applicabilityStatus* to the applicability status[RIL]: V100, AIML of the configuration corresponding to the *applicabilityInfoReportId*;

6> if the *applicabilityStatus* is set to inapplicable:

7> if the UE prefers to release the concerned *CSI-ReportConfig*, include *releaseConfigurationPreference*;

**[Proposed Change]**: We provide trackable changes as follows:

**Section 5.3.5.3**

2> if, for at least one serving cell, the *RRCReconfiguration* message includes in *csi-ReportConfigToAddModList* at least one *CSI-ReportConfig* including *csi-InferencePrediction*, or including *configurationForChannelPrediction*; or [RIL]: A104, AIML

2> if the *RRCReconfiguration* message includes at least one entry in *applicabilityConfigList* within *applicabilityReportConfig*; or

2> if, for at least one serving cell, the UE is configured with at least one *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *configurationForChannelPrediction*, for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either in *RRCReconfigurationComplete* or *UEAssistanceInformation*); or [RIL]: A104, AIML

2> if the UE is configured with at least one entry in *applicabilitySetConfigList* for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either in *RRCReconfigurationComplete* or *UEAssistanceInformation*):

3> for each serving cell associated with any of the configurations above, include an entry in the *applicabilityReportList* and set the content as follows:

4> set the *applicabilityCellId* to the serving cell index of the cell;

4> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *configurationForChannelPrediction*, that is included in the *RRCReconfiguration* message or for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either *RRCReconfigurationComplete* or *UEAssistanceInformation*): [RIL]: A104, AIML

5> include an entry in the *applicabilityInfoReportList* and set the content as follows:

6> set the *csi-ReportConfigId* within *applicabilityInfoReportId* to the corresponding *reportConfigId*;

6> set the *applicabilityStatus* to the applicability status[RIL]: V100, AIML of the configuration corresponding to the *applicabilityInfoReportId*;

6> if the *applicabilityStatus* is set to inapplicable:

7> if the UE prefers to release the concerned *CSI-ReportConfig*, include *releaseConfigurationPreference*;

4> for each entry within *applicabilitySetConfigList* associated with the concerned serving cell, that is included in the *RRCReconfiguration* message or for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (either *RRCReconfigurationComplete* or *UEAssistanceInformation*):

5> include an entry in the *applicabilityInfoReportList* and set the content as follows:

6> set the *applicabilitySetId* within *applicabilityInfoReportId* to the corresponding *applicabilitySetConfigId*;

6> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityInfoReportId*;

6> if the *applicabilityStatus* is set to inapplicable[RIL]: Z001, AIML:

7> if the UE prefers to release the concerned *ApplicabilitySetConfig*, include *releaseConfigurationPreference*;

**Section 5.3.13.4**

2> if, for at least one serving cell, the UE is configured with at least one *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *configurationForChannelPrediction*: [RIL]: A104, AIML

3> for each such serving cell, include an entry in the *applicabilityReportList* and set the content as follows:

4> set the *applicabilityCellId* to the serving cell index of the cell;

4> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *configurationForChannelPrediction*: [RIL]: A104, AIML

5> include an entry in the *applicabilityInfoReportList* and set the content as follows:

6> set the *csi-ReportConfigId* within *applicabilityInfoReportId* to the corresponding *reportConfigId*;

6> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityInfoReportId*;

6> if the *applicabilityStatus* is set to inapplicable:

7> if the UE prefers to release the concerned *CSI-ReportConfig*, include *releaseConfigurationPreference*;

1> submit the *RRCResumeComplete* message to lower layers for transmission;

1> the procedure ends.

**Section 5.7.4.3**

1> if transmission of the *UEAssistanceInformation* message is initiated to report assistance information about the applicability of configurations subject to applicability determination procedure according to 5.7.4.2:

2> include *applicabilityReportList* in this *UEAssistanceInformation* message;

2> for each serving cell:

3> if the cell is configured with at least one *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction* , or including *configurationForChannelPrediction*,for which the applicability status has changed; or [RIL]: A104, AIML

3> if the associated serving cell index was included in an entry in *applicabilityConfigList* within *applicabilityReportConfig* and the applicability status for at least one of the associated entries in *applicabilitySetConfigList* has changed: [RIL]: N034 AIML

4> include an entry in *applicabilityReportList* in the *UEAssistanceInformation* message, and set the content as follows:

5> set the *applicabilityCellId* to the serving cell index of the cell;

5> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *configurationForChannelPrediction*, for which the applicability status has changed[RIL]: O300 AIML: [RIL]: A104, AIML

6> include an entry in the *applicabilityReportConfigIdList*[RIL]: C076, AIML and set the content as follows:

7> set the *csi-ReportConfigId* within *applicabilityReportConfigId* to the corresponding *reportConfigId*;

7> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityReportConfigId*;

7> if the *applicabilityStatus* is set to *inapplicable*:

8> if the UE prefers to release the concerned *CSI-ReportConfig*, include *releaseConfigurationPreference*;

**[Comments]**:

ZTE: Agree to have this modification which make the text procedure more readable and aligned the description method for both AIML CSI-Prediction and AIML based BM

# A105

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| A105 | AIML | 1 | Separate monitoring configuration for beam management and CSI prediction |  | Peng Cheng (Apple) |  | V024 |  |

**[Description]**: In existing implementation, BM and CSI prediction share the same monitoring configuration (*configurationForChannelMonitoring-r19*). However, we understand that separate parameters are needed for them:

Only refToPredictionConfig-r19 and timeInstanceFor-SGCS-r19 are used for CSI prediction

refToPredictionConfig-r19, nrofBestBeamForMonitoring-r19, nrofTransmissionOccasion-r19, timeInstanceFor-RS-PAI-r19 and mappingToResourcesForChannelPrediction-r19 are used for beam management.

The existing mixed structure between BM and CSI are difficulty to read. To improve the readness, we propose to have seperate monitoring configuration for beam management and CSI prediction.

configurationForChannelMonitoring-r19 SEQUENCE {

refToPredictionConfig-r19 CSI-ReportConfigId, [RIL]: C078, AIML

nrofBestBeamForMonitoring-r19 ENUMERATED {n1, n2} OPTIONAL, -- Need R

nrofTransmissionOccasion-r19 ENUMERATED {n1, n3, n7, n15} OPTIONAL, -- Need R

timeInstanceFor-RS-PAI-r19 ENUMERATED {n1, n2, n8, spare1} OPTIONAL, -- Need R

mappingToResourcesForChannelPrediction-r19 BIT STRING (SIZE (1..maxNrofNZP-CSI-RS-ResourcesPerSet)) OPTIONAL, -- Need R

timeInstanceFor-SGCS-r19 ENUMERATED {n1, spare3, spare2, spare1} OPTIONAL, -- Need R

...

}[RIL]: A105, AIML

**[Proposed Change]**: We provide suggested changes as follows:

predictionConfiguration-r19 CHOICE {

csi-InferencePrediction-r19 ENUMERATED {true},

configurationForChannelPrediction-r19 SEQUENCE {

resourcesForChannelPrediction-r19 CSI-ResourceConfigId OPTIONAL, -- Need R

associatedIdForChannelPrediction-r19 AssociatedId-r19 OPTIONAL, -- Need R

associatedIdForChannelMeasurement-r19 AssociatedId-r19 OPTIONAL, -- Need R

nrofReportedPredicted-RS-r19 ENUMERATED {n1, n2, n3, n4} OPTIONAL, -- Need R

nrofTimeInstance-r19 ENUMERATED {n1, n2, n4, n8} OPTIONAL, -- Need R

timeGap-r19 ENUMERATED {ms10, ms20, ms40, ms80, ms160, spare3, spare2, spare1} OPTIONAL, -- Need R

...

},

configurationForBMChannelMonitoring-r19 SEQUENCE {

refToPredictionConfig-r19 CSI-ReportConfigId,

nrofBestBeamForMonitoring-r19 ENUMERATED {n1, n2} OPTIONAL, -- Need R

nrofTransmissionOccasion-r19 ENUMERATED {n1, n3, n7, n15} OPTIONAL, -- Need R

timeInstanceFor-RS-PAI-r19 ENUMERATED {n1, n2, n8, spare1} OPTIONAL, -- Need R

mappingToResourcesForChannelPrediction-r19 BIT STRING (SIZE (1..maxNrofNZP-CSI-RS-ResourcesPerSet)) OPTIONAL, -- Need R

...

}

configurationForCSIChannelMonitoring-r19 SEQUENCE {

refToPredictionConfig-r19 CSI-ReportConfigId,

timeInstanceFor-SGCS-r19 ENUMERATED {n1, spare3, spare2, spare1} OPTIONAL, -- Need R

...

}

}

**[Comments]**:

ZTE: Agree to have this modification, make the usage in the choice structure more clear.

# S042

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S042 | AIML | 1 | Release of NSDC configuration upon transition to RRC\_INACTIVE |  | Seung-Beom |  | v026 | ToDo |

**[Description]**: According to current text, UE stores NSDC (NW-side data collection) configuration and corresponding UAI configuration in UE Inactive AS Context, before they are released. So, they would be restored during RRCResume procedure.

**[Proposed Change]**: We suggest to follow the legacy principle. i.e., UE stores both configurations in UE Inactive AS Context, and releasese upon RRC resume initiation.

|  |
| --- |
| 5.3.8.3 Reception of the *RRCRelease* by the UE  2> if the *RRCRelease* message with *suspendConfig* was received in response to an *RRCResumeRequest* or an *RRCResumeRequest1*:  2> else:  3> store in the UE Inactive AS Context the *nextHopChainingCount* received in the *RRCRelease* message*,* the current KgNB and KRRCint keys, the ROHC state, the EHC context(s), the UDC state, the stored QoS flow to DRB mapping rules, the application layer measurement configuration, the C-RNTI used in the source PCell, the *cellIdentity* and the physical cell identity of the source PCell, the *ncr-FwdConfig* (if configured), the *spCellConfigCommon* within *ReconfigurationWithSync* of the NR PSCell (if configured) and all other parameters configured except for:  - parameters within *ReconfigurationWithSync* of the PCell;  - parameters within *ReconfigurationWithSync* of the NR PSCell, if configured;  - parameters within *MobilityControlInfoSCG* of the E-UTRA PSCell, if configured;  - *servingCellConfigCommonSIB*;  - *sl-L2RelayUE-Config*, if configured;  - *sl-L2RemoteUE-Config*, if configured;  - *aerial-Config*, if configured;  - c*ellDTX-DRX-Config*, if configured;  ~~2> release~~ *~~CSI-LoggedMeasurementConfig~~*~~, if configured;~~  ~~2> release~~ *~~loggedDataCollectionAssistanceConfig~~*~~, if configured;~~  ~~2> discard the logged measurement entries included in~~ *~~VarCSI-LogMeasReport,~~* ~~if any;~~ 5.3.13 RRC connection resume 5.3.13.2 Initiation  Upon initiation of the procedure, the UE shall:  1> if the UE is in NE-DC or NR-DC:  2> if the UE does not support maintaining SCG configuration upon connection resumption:  3> release the MR-DC related configurations (i.e., as specified in 5.3.5.10) from the UE Inactive AS context, if stored;  1> if the UE does not support maintaining the MCG SCell configurations upon connection resumption:  2> release the MCG SCell(s) from the UE Inactive AS context, if stored;  <…>  1> release *delayBudgetReportingConfig* from the UE Inactive AS context, if stored;   1. stop timer T342, if running;   <…>  1> release *CSI-LoggedMeasurementConfig*, from the UE Inactive AS context, if stored;   1. release *loggedDataCollectionAssistanceConfig*, from the UE Inactive AS context, if stored; 2. discard the logged measurement entries included in *VarCSI-LogMeasReport,* if any; |

**[Comments]**:

# S043

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S043 | AIML | 1 | Correction on NSDC resource measurement and logging |  | Seung-Beom |  | v026 | ToDo |

**[Description]**: NSDC (NW-side data collection) configuration indicates one CSI-ResourceConfig.

|  |
| --- |
| – *CSI-ResourceConfig* The IE *CSI-ResourceConfig* defines a group of one or more *NZP-CSI-RS-ResourceSet*, *CSI-IM-ResourceSet* and/or *CSI-SSB-ResourceSet*.  *CSI-ResourceConfig* information element  -- ASN1START  -- TAG-CSI-RESOURCECONFIG-START  CSI-ResourceConfig ::= SEQUENCE {  csi-ResourceConfigId CSI-ResourceConfigId,  csi-RS-ResourceSetList CHOICE {  nzp-CSI-RS-SSB SEQUENCE {  nzp-CSI-RS-ResourceSetList SEQUENCE (SIZE (1..maxNrofNZP-CSI-RS-ResourceSetsPerConfig)) OF NZP-CSI-RS-ResourceSetId  OPTIONAL, -- Need R  csi-SSB-ResourceSetList SEQUENCE (SIZE (1..maxNrofCSI-SSB-ResourceSetsPerConfig)) OF CSI-SSB-ResourceSetId OPTIONAL -- Need R  },  csi-IM-ResourceSetList SEQUENCE (SIZE (1..maxNrofCSI-IM-ResourceSetsPerConfig)) OF CSI-IM-ResourceSetId  },  bwp-Id BWP-Id,  resourceType ENUMERATED { aperiodic, semiPersistent, periodic },  ...,  [[  csi-SSB-ResourceSetListExt-r17 CSI-SSB-ResourceSetId OPTIONAL -- Need R  ]]  }  -- TAG-CSI-RESOURCECONFIG-STOP  -- ASN1STOP |

It could include “both” or “either” SSB and CSI-RS resource set. However, according to the current text, UE always sets “both” *csi-RS-MeasResultList* and *SSB-MeasResultList*. If *CSI-ResourceConfig* is includes “either” SSB or CSI-RS, UE should set “either” *csi-RS-MeasResultList* and *SSB-MeasResultList*.

**[Proposed Change]**:

|  |
| --- |
| 5.5x.3 Measurements logging  5.5x.3.2 Initiation  The UE shall:  <…>  2> when performing the logging:  3> for each CSI logged measurement configuration associated to *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport*:  4> set the *csi-RS-MeasResultList* and**/or** *SSB-MeasResultList* to include the quantities the UE is logging measurements for, **~~upon receiving the quantities~~ if received** from the lower layers; |

**[Comments]**:

# S044

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S044 | AIML | 1 | Correction on inclusion of NSDC data |  | Seung-Beom |  | v026 | ToDo |

**[Description]**: According to current text, UE may report NSDC (NW-side data collection) data without measured data (i.e., L1-RSRP and resource ID). For example, assume UE is configured with two NSDC configurations with ID 1 and 2.

Upon reception of two NSDC (NW-side data collection) configuration (i.e., in 5.5x.1.3), UE includes *csi-LogMeasInfoCellList* in *VarCSI-LogMeasReport* to set *refCSI-LoggedMeasurementConfigId* (e.g., 1 and 2) and *cellId*.

UE starts measurement and logging for configuration 1 (i.e., periodic logging), while adding measured data (i.e., L1-RSRP and resource ID) in *VarCSI-LogMeasReport* for *refCSI-LoggedMeasurementConfigId* 1*.*

However, UE may not start measurement and logging for configuration 2 (i.e., event-based logging). i.e., No measured data for for *refCSI-LoggedMeasurementConfigId* 2 in *VarCSI-LogMeasReport.*

Upon reception of *UEInformationRequest*, UE copies and pastes *csi-LogMeasInfoCellList* from *VarCSI-LogMeasReport* to *UEInformationResponse*. It means UE would include *refCSI-LoggedMeasurementConfigId* 2 (and corresponding *cellId*) without any measured data (i.e., L1-RSRP and resource ID) in *UEInformationResponse*, which is not useful information to NW-side model training at all.

**[Proposed Change]**:

UE should include in UEInformationResponse the entries which include SSB and/or CSI-RS measurement results.

|  |
| --- |
| 5.7.10.3 Reception of the *UEInformationRequest* message  Upon receiving the *UEInformationRequest* message, the UE shall, only after successful security activation:  1> if the *csi-LogMeasReportReq* is present:  2> if *VarCSI-LogMeasReport* includes one or more logged measurement entries, set the contents of the *csi-LogMeasReport* in the *UEInformationResponse* message as follows:  3> include the *csi-LogMeasInfoCellList* and set it to include one or more entries **which include** **SSB and/or CSI-RS measurement results** from the *VarCSI-LogMeasReport* starting from the entries logged first;  3> if the *VarCSI-LogMeasReport* includes one or more additional logged measurement entries that are not included within the *UEInformationResponse* message:  4> include the *csi-MoreLogMeasAvailable*; |

**[Comments]**:

# S045

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S045 | AIML | 2 | Correction on dataCollectionSart | TBD | Seung-Beom |  | v026 | ToDo |

**[Description]**: We have the following agreement:

|  |
| --- |
| 3 On stop/start indication   1. The UE can send start indication (without a preferred list) to indicate preference to start data collection 2. The UE can send preferred list implying that it would like to start data collection on those configuration 3. The UE can send stop indication for all or a given actual CSI report config ID. 4. Rapporteur will determine best way of signaling. This doesn’t preclude merging 1 and 2. |

In our understanding, UE can indicate its preference for the following three cases via UAI:

Case 1) Absence of Start indication: UE has no preference to start data collection

Case 2) Presnece of Start indication “without” preferred list: UE has preference to start data collection, but none of given candidates is preferred

Case 3) Presnece of Start indication “with” preferred list: UE has preference to start data collection, and the indicated list among given candidates is preferred

Here, we want to clarify UE could have different preference for each serving cell. For example,

For serving cell 1, UE has no preference to start data collection (i.e., Case 1), leading to absence of start indication

For serving cell 2, UE has preference to start data collection (i.e., Case 2 or 3), leading to presence of start indication

However, according to the current ASN.1, the start indication is defined commonly to all serving cells. Therefore, there is no way for UE to indicate different start indication (i.e., absence vs. presence) for different cells.

**[Proposed Change]**:

Start indication is defined per serving cell, and corresponding TP could be also updated as follows:

|  |
| --- |
| UEAssistanceInformation-v19xy-IEs ::= SEQUENCE {  applicabilityReportList-r19 ApplicabilityReportList-r19 OPTIONAL,  dataCollectionPreference-r19 DataCollectionPreference-r19 OPTIONAL,  loggedDataCollectionAssistance-r19 LoggedDataCollectionAssistance-r19 OPTIONAL,  nonCriticalExtension SEQUENCE {} OPTIONAL  }  DataCollectionPreference-r19 ::= SEQUENCE {  ~~dataCollectionStart-r19 ENUMERATED {start} OPTIONAL,~~  dataCollectionPreferredConfigurationList-r19 SEQUENCE (SIZE (1..maxNrofServingCells)) OF DataCollectionCandidateList-r19 OPTIONAL,  dataCollectionStopConfigurationList-r19 SEQUENCE (SIZE (1..maxNrofServingCells)) OF DataCollectionList-r19 OPTIONAL,  ...  }  DataCollectionCandidateList-r19 ::= SEQUENCE {  dataCollectionServCellIndex-r19 ServCellIndex,  **dataCollectionStart-r19 ENUMERATED {start} OPTIONAL,**  dataCollectionCandidateIdList-r19 SEQUENCE (SIZE (1..maxCandidateConfig-r19)) OF DataCollectionCandidateConfigId-r19 OPTIONAL  }  DataCollectionList-r19 ::= SEQUENCE {  dataCollectionStopServCellIndex-r19 ServCellIndex,  dataCollectionIdList-r19 SEQUENCE (SIZE (1..maxNrofCSI-ReportConfigurations)) OF CSI-ReportConfigId OPTIONAL  } |

|  |
| --- |
| 5.7.4.3 Actions related to transmission of *UEAssistanceInformation* message  The UE shall set the contents of the *UEAssistanceInformation* message as follows:  <…>  1> if transmission of the *UEAssistanceInformation* message is initiated to report the UE preference to be configured with radio resources to perform UE-side data collection according to 5.7.4.2:  2> include *dataCollectionPreference* in this *UEAssistanceInformation* message;  2> if the UE prefers to be configured with radio resources to perform data collection:  3> for each serving cell for which UE prefers to be configured with radio resources to perform data collection:  4> include an entry in *dataCollectionPreferredConfigurationList* and set the content as follows:  5> set the *dataCollectionServCellIndex* to the serving cell index of the cell;  5> set *dataCollectionStart* to *start*;  5> if *dataCollectionCandidateConfigParameterList* is configured for the serving cell and the UE has one or more preferred radio resource configuration(s) among the *dataCollectionCandidateConfigParameterList*:  6> include in *dataCollectionCandidateIdList* the *dataCollectionCandidateConfigId* associated with preferred configuration(s) from *dataCollectionCandidateConfigParameterList*;  ~~3> set~~ *~~dataCollectionStart~~* ~~to~~ *~~start~~*~~;~~  ~~3> for each serving cell configured with candidate UE-side data collection configuration(s) in~~ *~~dataCollectionCandidateConfigList~~* ~~and for which the UE has one or more preferred radio resource configuration(s):~~  ~~4> include an entry in~~ *~~dataCollectionPreferredConfigurationList~~* ~~and set the content as follows:~~  ~~5> set the~~ *~~dataCollectionServCellIndex~~* ~~to the serving cell index of the cell;~~  ~~5> include in dataCollectionCandidateIdList the dataCollectionCandidateConfigId associated with preferred configuration(s) from dataCollectionCandidateConfigParameterList;~~ |

**[Comments]**:

# S046

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S046 | AIML | 2 | Content of NSDC data | TBD | Seung-Beom |  | v026 | ToDo |

**[Description]**: According to current ASN.1 structure,

Issue 1. UE includes *refCSI-LoggedMeasurementConfigId-r19* redundantly (i.e., per every *CSI-LogMeasInfo-r19*)

Issue 2. UE includes *resourceId-r19* redundantly (i.e., per every *l1-RSRP-r19*)

**[Proposed Change]**: As the issue 1 has been addressed in Z008, we propose further update on Z008’s proposed text to resolve issue 2.

CSI-LogMeasInfoCell-r19 ::= SEQUENCE {

cellId-r19 CHOICE {

cellGlobalId-r19 CGI-Info-Logging-r16,

pci-arfcn-r19 PCI-ARFCN-NR-r16

},

csi-LogMeasInfoMeasConfigList-r19 SEQUENCE (SIZE (1..maxNrofLoggedMeasurementConfigurations-r19)) OF CSI-LogMeasInfoMeasConfig-r19,

...

}

CSI-LogMeasInfoMeasConfig-r19 ::= SEQUENCE {

refCSI-LoggedMeasurementConfigId-r19 CSI-LoggedMeasurementConfigId-r19,

csi-RS-MeasResultList-r19 SEQUENCE (SIZE (1..maxNrofNZP-CSI-RS-Resources)) OF CSI-RS-MeasResult-r19 OPTIONAL,

ssb-MeasResultList-r19 SEQUENCE (SIZE (1..maxNrofSSBs-r16)) OF SSB-MeasResult-r19 OPTIONAL,

...

}

CSI-RS-MeasResult-r19 ::= SEQUENCE {

resourceId-r19 NZP-CSI-RS-ResourceId,

rsrp-Results-r19 SEQUENCE (SIZE (1..maxLogCSI-MeasReport-r19)) OF RSRP-Result-r19

}

SSB-MeasResult-r19 ::= SEQUENCE {

ssb-Id-r19 SSB-Index,

rsrp-Results-r19 SEQUENCE (SIZE (1..maxLogCSI-MeasReport-r19)) OF RSRP-Result-r19

}

RSRP-Result-r19 ::= SEQUENCE {

l1-RSRP-r19 RSRP-Range

timeGap-r19 ENUMERATED {true} OPTIONAL, ...

}

**[Comments]**:

# S047

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S047 | AIML | 2 | Inference configuration |  | Youn Heo |  | v026 | ToDo |

**[Description]**: configurations for prediction accuracy indicator (PAI) are quite different for BM and CSI.

In addition, BM and CSI PAI is distinguished and also inference configuration for BM is distinguished via reportQuantity-r19 (rs-PAI-r19 and csi-PAI-r19/sgcs-r19). Therefore, there is no reason to have a CHOICE structure under predictionConfiguration-r19.

It is noted that this issue is the similar issue as in N021 / H003 but add one more point about separating performance montoring for BM use case and CSI use case.

So, we propose to discuss together with N021 / H003.

**[Proposed Change]**:

|  |
| --- |
| csi-InferencePrediction-r19 ENUMERATED {true} OPTIONAL, -- Need R  configurationForChannelPrediction-r19 SEQUENCE {  resourcesForChannelPrediction-r19 CSI-ResourceConfigId OPTIONAL, -- Need R  associatedIdForChannelPrediction-r19 AssociatedId-r19 OPTIONAL, -- Need R  associatedIdForChannelMeasurement-r19 AssociatedId-r19 OPTIONAL, -- Need R  nrofReportedPredicted-RS-r19 ENUMERATED {n1, n2, n3, n4} OPTIONAL, -- Need R  nrofTimeInstance-r19 ENUMERATED {n1, n2, n4, n8} OPTIONAL, -- Need R  timeGap-r19 ENUMERATED {ms10, ms20, ms40, ms80, ms160, spare3, spare2, spare1} OPTIONAL, -- Need R  ...  },  configurationForBM-PAI-r19 SEQUENCE {  refToPredictionConfig-r19 CSI-ReportConfigId,  nrofBestBeamForMonitoring-r19 ENUMERATED {n1, n2} OPTIONAL, -- Need R  nrofTransmissionOccasion-r19 ENUMERATED {n1, n3, n7, n15} OPTIONAL, -- Need R  timeInstanceFor-RS-PAI-r19 ENUMERATED {n1, n2, n8, spare1} OPTIONAL, -- Need R  mappingToResourcesForChannelPrediction-r19 BIT STRING (SIZE (1..maxNrofNZP-CSI-RS-ResourcesPerSet)) OPTIONAL, -- Need R  timeInstanceFor-SGCS-r19 ENUMERATED {n1, spare3, spare2, spare1} OPTIONAL, -- Need R  ...  }  configurationForCS-PAI-r19 SEQUENCE {  refToPredictionConfig-r19 CSI-ReportConfigId,  timeInstanceFor-SGCS-r19 ENUMERATED {n1, spare3, spare2, spare1} OPTIONAL, -- Need R  ...  } |

**[Comments]**:

# S048

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S048 | AIML | 1 | UAI initiation |  | Youn Heo |  | v026 | ToDo |

**[Description]**: Preference for data collection should be also initiated when UE want to stop for a configured data collection configuration.

**[Proposed Change]**:

|  |
| --- |
| 1> if configured to provide its preference to be configured with radio measurement resources for UE-side data collection:  2> if the UE has a preference to be configured with radio measurement resources to perform UE-side data collection or to stop a configured data collection configuration and did not transmit a *UEAssistanceInformation* messagewith *dataCollectionPreference* since it was configured to provide its preference to be configured with radio measurement resources to perform UE-side data collection; or  2> if the preference to be configured with radio measurement resources to perform UE-side data collection has changed since the last transmission of the *UEAssistanceInformation* message including *dataCollectionPreference*:  3> initiate transmission of the *UEAssistanceInformation* message in accordance with 5.7.4.3 to report the UE preference to be configured with radio measurement resources for UE-side data collection; |

**[Comments]**:

# S049

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S049 | AIML | 1 | Applicability reporting needs to consider RRCResumeComplete |  | Aby K Abraham |  | v026 | ToDo |

**[Description]**:

UE reports change in applicability in RRCResumeComplete. UE nees to consider the applicability while reporting the change in applicability in RRCReconfigurationComplete or UAI.

**[Proposed Change]**:

While reporting UAI,

1> if configured to report assistance information about the applicability of configurations subject to the applicability determination procedure:

2> if the applicability status of configurations subject to the applicability determination procedure has changed since the last transmission of a message containing *applicabilityReportList* (in *RRCReconfigurationComplete* or in *UEAssistanceInformation* or *RRCResumeComplete*):

3> initiate transmission of the *UEAssistanceInformation* message in accordance with 5.7.4.3 to report assistance information about the applicability of configurations subject to the applicability determination procedure;

While reporting ReconfigurationComplete:

1. 2> if, for at least one serving cell, the *RRCReconfiguration* message includes in *csi-ReportConfigToAddModList* at least one *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*; or
2. 2> if the *RRCReconfiguration* message includes at least one entry in *applicabilityConfigList* within *applicabilityReportConfig*; or
3. 2> if, for at least one serving cell, the UE is configured with at least one *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*, for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (in *RRCReconfigurationComplete* or *UEAssistanceInformation* or *RRCResumeComplete*); or
4. 2> if the UE is configured with at least one entry in *applicabilitySetConfigList* for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (in *RRCReconfigurationComplete* or *UEAssistanceInformation* or *RRCResumeComplete*):
5. 3> for each serving cell associated with any of the configurations above, include an entry in the *applicabilityReportList* and set the content as follows:
6. 4> set the *applicabilityCellId* to the serving cell index of the cell;
7. 4> for each configured *reportConfigId* associated to a *CSI-ReportConfig* including *csi-InferencePrediction*, or including *reportQuantity-r19* set to *p-CRI-r19* or *p-SSB-Index-r19* or *p-CRI-RSRP-r19* or *p-SSB-Index-RSRP-r19*, that is included in the *RRCReconfiguration* message or for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (*RRCReconfigurationComplete* or *UEAssistanceInformation* or *RRCResumeComplete*):
8. 5> include an entry in the *applicabilityInfoReportList* and set the content as follows:
9. 6> set the *csi-ReportConfigId* within *applicabilityInfoReportId* to the corresponding *reportConfigId*;
10. 6> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityInfoReportId*;
11. 6> if the *applicabilityStatus* is set to inapplicable:
12. 7> if the UE prefers to release the concerned *CSI-ReportConfig*, include *releaseConfigurationPreference*;
13. 4> for each entry within *applicabilitySetConfigList* associated with the concerned serving cell, that is included in the *RRCReconfiguration* message or for which the applicability status has changed since the last transmission of a message containing *applicabilityReportList* (*RRCReconfigurationComplete* or *UEAssistanceInformation* or *RRCResumeComplete*):
14. 5> include an entry in the *applicabilityInfoReportList* and set the content as follows:
15. 6> set the *applicabilitySetId* within *applicabilityInfoReportId* to the corresponding *applicabilitySetConfigId*;
16. 6> set the *applicabilityStatus* to the applicability status of the configuration corresponding to the *applicabilityInfoReportId*;
17. 6> if the *applicabilityStatus* is set to inapplicable:

7> if the UE prefers to release the concerned *ApplicabilitySetConfig*, include *releaseConfigurationPreference*;

**[Comments]**:

# S050

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S050 | AIML | 1 | UAI retransmission after HO/CHO/LTM cell switch |  | Aby K Abraham |  | v026 | ToDo |

**[Description]**:

If the UE has send a UAI and within 1 second a handover has occurred or if the UE has send a UAI and a CHO or LTM cell switch has occurred, UE is required to resend the UAI. This is to avoid the transmission of UAI from source to target cell or to prepare CHO/LTM candidate cells, which can interrupt ongoing mobility For applicability reporting, based on the RRC specification, UE will send the new applicability after handover in RRCReconfigurationComplete. Thus, there is no need to retransmit the UAI.

**[Proposed Change]**: Add suggested check:

2> if *reconfigurationWithSync* was included in *masterCellGroup* or *secondaryCellGroup*:

3> if the UE initiated transmission of a *UEAssistanceInformation* message for the corresponding cell group during the last 1 second, and the UE is still configured to provide the concerned UE assistance information for the corresponding cell group; or

3> if the *RRCReconfiguration* message is applied due to a conditional reconfiguration execution or an LTM cell switch procedure, and the UE is configured to provide UE assistance information for the corresponding cell group, and the UE has initiated transmission of a *UEAssistanceInformation* message for the corresponding cell group since it was configured to do so in accordance with 5.7.4.2:

4> if the UE assistance information was not initiated to report assistance information about the applicability of configurations subject to the applicability determination procedure:

5> initiate transmission of a *UEAssistanceInformation* message for the corresponding cell group in accordance with clause 5.7.4.3 to provide the concerned UE assistance information;

5> start or restart the prohibit timer (if exists) associated with the concerned UE assistance information with the timer value set to the value in corresponding configuration;

4> start or restart the leave without response timer (if exists) or the wait timer (if exists) with the timer value set to the value in *musim-CapabilityRestrictionConfig*;

**[Comments]**:

# S051

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S051 | AIML | 1 | RLC-Config and MAC-LogicalChannelConfig has to be mandatory present while configuring SRBx |  | Aby K Abraham |  | v026 | ToDo |

**[Description]**:

There is no default configuration defined for SRBx. So when the gNB is configuring SRBx, RLC-Config and MACLogicalChannelConfig need to be provided.

**[Proposed Change]**: Update the explanation of conditional presence for LCH-Setup as below:

*RLC-BearerConfig* information element

-- ASN1START

-- TAG-RLC-BEARERCONFIG-START

RLC-BearerConfig ::= SEQUENCE {

logicalChannelIdentity LogicalChannelIdentity,

servedRadioBearer CHOICE {

srb-Identity SRB-Identity,

drb-Identity DRB-Identity

} OPTIONAL, -- Cond LCH-SetupOnly

reestablishRLC ENUMERATED {true} OPTIONAL, -- Need N

rlc-Config RLC-Config OPTIONAL, -- Cond LCH-Setup

mac-LogicalChannelConfig LogicalChannelConfig OPTIONAL, -- Cond LCH-Setup

...,

[[

rlc-Config-v1610 RLC-Config-v1610 OPTIONAL -- Need R

]],

[[

rlc-Config-v1700 RLC-Config-v1700 OPTIONAL, -- Need R

logicalChannelIdentityExt-r17 LogicalChannelIdentityExt-r17 OPTIONAL, -- Cond LCH-SetupModMRB

multicastRLC-BearerConfig-r17 MulticastRLC-BearerConfig-r17 OPTIONAL, -- Cond LCH-SetupOnlyMRB

servedRadioBearerSRB4-r17 SRB-Identity-v1700 OPTIONAL -- Cond LCH-SetupOnlySRB4

]],

[[

servedRadioBearerSRB5-r18 SRB-Identity-v1800 OPTIONAL -- Cond LCH-SetupOnlySRB5

]],

[[

servedRadioBearerSRBx-r19 SRB-Identity-v19xy OPTIONAL -- Cond LCH-SetupOnlySRBx

]]

}

MulticastRLC-BearerConfig-r17 ::= SEQUENCE {

servedMBS-RadioBearer-r17 MRB-Identity-r17,

isPTM-Entity-r17 ENUMERATED {true} OPTIONAL -- Need S

}

LogicalChannelIdentityExt-r17 ::= INTEGER (320..65855)

-- TAG-RLC-BEARERCONFIG-STOP

-- ASN1STOP

|  |
| --- |
| *RLC-BearerConfig* field descriptions |
| ***isPTM-Entity***  If configured, indicates that the RLC entity is used for PTM reception. When the field is absent the RLC entity is used for PTP transmission/reception. |
| ***logicalChannelIdentity***  ID used commonly for the MAC logical channel and for the RLC bearer. |
| ***logicalChannelIdentityExt***  Extended logical channel ID used commonly for the MAC logical channel and for the RLC bearer for PTM reception. If this field is configured, the UE shall ignore *logicalChannelIdentity*. |
| ***reestablishRLC***  Indicates that RLC should be re-established. Network sets this to *true* at least whenever the security key used for the radio bearer associated with this RLC entity changes. For SRB2, multicast MRBs and DRBs, unless full configuration is used, it is also set to *true* during the resumption of the RRC connection or the first reconfiguration after reestablishment. For SRB1, when resuming an RRC connection, or at the first reconfiguration after RRC connection reestablishment, the network does not set this field to *true.* The network does not include this field if *servedRadioBearer* is set to *drb-Identity* and the *RLC-BearerConfig* IE is part of an *RRCReconfiguration* message within the *LTM-Config* IE. For DRBs, network doesn't include this field if the *RLC-BearerConfig* IE is part of an *RRCReconfiguration* message associated with subsequent CPAC within the *ConditionalReconfiguration* IE. Network doesn't include this field if the *RadioBearerConfig* IE is part of an *RRCReconfiguration* message associated with subsequent CPAC within the *ConditionalReconfiguration* IE which is received within a MCG *RRCReconfiguration* message via SRB1. |
| ***rlc-Config***  Determines the RLC mode (UM, AM) and provides corresponding parameters. RLC mode reconfiguration can only be performed by DRB/multicast MRB release/addition or full configuration. The network may configure *rlc-Config-v1610* only when *rlc-Config* (without suffix) is set to *am*. |
| ***servedMBS-RadioBearer***  Associates the RLC Bearer with a multicast MRB. The UE shall deliver DL RLC SDUs received via the RLC entity of this RLC bearer to the PDCP entity of the *servedMBS-RadioBearer*. |
| ***servedRadioBearer, servedRadioBearerSRB4, servedRadioBearerSRB5, servedRadioBearerSRBx***  Associates the RLC Bearer with an SRB or a DRB. The UE shall deliver DL RLC SDUs received via the RLC entity of this RLC bearer to the PDCP entity of the *servedRadioBearer*. Furthermore, the UE shall advertise and deliver uplink PDCP PDUs of the uplink PDCP entity of the *servedRadioBearer* to the uplink RLC entity of this RLC bearer unless the uplink scheduling restrictions (*moreThanOneRLC* in *PDCP-Config* and the restrictions in *LogicalChannelConfig*) forbid it to do so. |

|  |  |
| --- | --- |
| Conditional Presence | Explanation |

|  |  |
| --- | --- |
| Conditional Presence | Explanation |
| *LCH-Setup* | This field is mandatory present upon creation of a new logical channel for a DRB or a multicast MRB or SRB4 or SRB5 or SRBx. This field is optionally present, Need S, upon creation of a new logical channel for an SRB except SRB4 and SRB5. It is optionally present, Need M, otherwise. |
| *LCH-SetupModMRB* | This field is optionally present upon creation of a new logical channel for PTM reception for a multicast MRB. If this field is included upon creation of a new logical channel for PTM reception for a multicast MRB, it shall be present when modifying this logical channel. The field is absent for logical channels configured for an SRB and a DRB. |
| *LCH-SetupOnly* | This field is mandatory present upon creation of a new logical channel for a DRB or an SRB (*servedRadioBearer*). It is absent, Need M otherwise. |
| *LCH-SetupOnlyMRB* | This field is mandatory present upon creation of a new logical channel for a multicast MRB and upon modification of *MRB-Identity* of the served MRB. It is absent, Need M otherwise. |
| *LCH-SetupOnlySRB4* | This field is mandatory present upon creation of a new logical channel for SRB4 (*servedRadioBearerSRB4*). It is absent, Need M otherwise. |
| *LCH-SetupOnlySRB5* | This field is mandatory present upon creation of a new logical channel for SRB5 (*servedRadioBearerSRB5*). It is absent, Need M otherwise. |
| *LCH-SetupOnlySRBx* | This field is mandatory present upon creation of a new logical channel for SRBx (servedRadioBearerSRBx). It is absent, Need M otherwise. |

**[Comments]**:

# S052

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S052 | AIML | 2 | Qunatity configuration for Event triggered Logging of CSI measurements |  | Aby K Abraham |  | v026 | ToDo |

**[Description]**:

Eevent triggered CSI measurement logging can be performed based on L3 events. It is agreed to use CSI framework and not measurement framework and the event is captured as below in RRC CR.

CSI-LoggedMeasurementEventTriggerConfig-r19 ::= SEQUENCE {

threshold-r19 CHOICE {

aboveThreshold-r19 MeasTriggerQuantity,

belowThreshold-r19 MeasTriggerQuantity

},

hysteresis Hysteresis,

timeToTrigger TimeToTrigger,

...

}

Now it is not clear how does the UE get the quantity configuration for the L3 filtering for deriving L3 measurements for the event evaluation for logging CSI measurements.

**[Proposed Change]**:

There can be two options for the quantity configuration for deriving L3 measureemnts for event evaluation for logging CSI measurements.

Quantity configuration is provided in CSI measurement framework.

UE uses the Quantity configuration from the measurement configuration, for e.g. the quantity configuration associated to measurement object through ServingCellMO. This means UE should be provided with the measurement configuration when CSI-LoggedMeasurementEventTriggerConfig is received.

According to the option chosen,below changes may be considered.

**Option a. require below changes.**

**<Change 1>**

#### – *CSI-MeasConfig*

The IE *CSI-MeasConfig* is used to configure CSI-RS (reference signals) belonging to the serving cell in which *CSI-MeasConfig* is included, channel state information reports to be transmitted on PUCCH on the serving cell in which *CSI-MeasConfig* is included and channel state information reports on PUSCH triggered by DCI received on the serving cell in which *CSI-MeasConfig* is included. See also TS 38.214 [19], clause 5.2.

*CSI-MeasConfig* information element

-- ASN1START

-- TAG-CSI-MEASCONFIG-START

CSI-MeasConfig ::= SEQUENCE {

nzp-CSI-RS-ResourceToAddModList SEQUENCE (SIZE (1..maxNrofNZP-CSI-RS-Resources)) OF NZP-CSI-RS-Resource OPTIONAL, -- Need N

nzp-CSI-RS-ResourceToReleaseList SEQUENCE (SIZE (1..maxNrofNZP-CSI-RS-Resources)) OF NZP-CSI-RS-ResourceId OPTIONAL, -- Need N

nzp-CSI-RS-ResourceSetToAddModList SEQUENCE (SIZE (1..maxNrofNZP-CSI-RS-ResourceSets)) OF NZP-CSI-RS-ResourceSet

OPTIONAL, -- Need N

nzp-CSI-RS-ResourceSetToReleaseList SEQUENCE (SIZE (1..maxNrofNZP-CSI-RS-ResourceSets)) OF NZP-CSI-RS-ResourceSetId

OPTIONAL, -- Need N

csi-IM-ResourceToAddModList SEQUENCE (SIZE (1..maxNrofCSI-IM-Resources)) OF CSI-IM-Resource OPTIONAL, -- Need N

csi-IM-ResourceToReleaseList SEQUENCE (SIZE (1..maxNrofCSI-IM-Resources)) OF CSI-IM-ResourceId OPTIONAL, -- Need N

csi-IM-ResourceSetToAddModList SEQUENCE (SIZE (1..maxNrofCSI-IM-ResourceSets)) OF CSI-IM-ResourceSet OPTIONAL, -- Need N

csi-IM-ResourceSetToReleaseList SEQUENCE (SIZE (1..maxNrofCSI-IM-ResourceSets)) OF CSI-IM-ResourceSetId OPTIONAL, -- Need N

csi-SSB-ResourceSetToAddModList SEQUENCE (SIZE (1..maxNrofCSI-SSB-ResourceSets)) OF CSI-SSB-ResourceSet OPTIONAL, -- Need N

csi-SSB-ResourceSetToReleaseList SEQUENCE (SIZE (1..maxNrofCSI-SSB-ResourceSets)) OF CSI-SSB-ResourceSetId OPTIONAL, -- Need N

csi-ResourceConfigToAddModList SEQUENCE (SIZE (1..maxNrofCSI-ResourceConfigurations)) OF CSI-ResourceConfig

OPTIONAL, -- Need N

csi-ResourceConfigToReleaseList SEQUENCE (SIZE (1..maxNrofCSI-ResourceConfigurations)) OF CSI-ResourceConfigId

OPTIONAL, -- Need N

csi-ReportConfigToAddModList SEQUENCE (SIZE (1..maxNrofCSI-ReportConfigurations)) OF CSI-ReportConfig OPTIONAL, -- Need N

csi-ReportConfigToReleaseList SEQUENCE (SIZE (1..maxNrofCSI-ReportConfigurations)) OF CSI-ReportConfigId

OPTIONAL, -- Need N

reportTriggerSize INTEGER (0..6) OPTIONAL, -- Need M

aperiodicTriggerStateList SetupRelease { CSI-AperiodicTriggerStateList } OPTIONAL, -- Need M

semiPersistentOnPUSCH-TriggerStateList SetupRelease { CSI-SemiPersistentOnPUSCH-TriggerStateList } OPTIONAL, -- Need M

...,

[[

reportTriggerSizeDCI-0-2-r16 INTEGER (0..6) OPTIONAL -- Need R

]],

[[

sCellActivationRS-ConfigToAddModList-r17 SEQUENCE (SIZE (1..maxNrofSCellActRS-r17)) OF SCellActivationRS-Config-r17 OPTIONAL, -- Need N

sCellActivationRS-ConfigToReleaseList-r17 SEQUENCE (SIZE (1..maxNrofSCellActRS-r17)) OF SCellActivationRS-ConfigId-r17 OPTIONAL -- Need N

]],

[[

ltm-CSI-ReportConfigToAddModList-r18 SEQUENCE (SIZE (1..maxNrofLTM-CSI-ReportConfigurations-r18)) OF LTM-CSI-ReportConfig-r18

OPTIONAL, -- Need N

ltm-CSI-ReportConfigToReleaseList-r18 SEQUENCE (SIZE (1..maxNrofLTM-CSI-ReportConfigurations-r18)) OF LTM-CSI-ReportConfigId-r18

OPTIONAL -- Need N

]],

[[

csi-LoggedMeasurementConfigToAddModList-r19 SEQUENCE (SIZE (1..maxNrofLoggedMeasurementConfigurations-r19)) OF CSI-LoggedMeasurementConfig-r19

OPTIONAL, -- Need N

csi-LoggedMeasurementConfigToReleaseList-r19 SEQUENCE (SIZE (1..maxNrofLoggedMeasurementConfigurations-r19)) OF CSI-LoggedMeasurementConfigId-r19 OPTIONAL, -- Need N

csi-LoggedMeasurementConfig-quantityConfig QuantityConfigRS OPTIONAL, -- Need N

]]

}

-- TAG-CSI-MEASCONFIG-STOP

-- ASN1STOP

|  |
| --- |
| *CSI-MeasConfig* field descriptions |
| ***aperiodicTriggerStateList***  Contains trigger states for dynamically selecting one or more aperiodic and semi-persistent reporting configurations and/or triggering one or more aperiodic CSI-RS resource sets for channel and/or interference measurement (see TS 38.214 [19], clause 5.2.1). |
| ***csi-IM-ResourceSetToAddModList***  Pool of *CSI-IM-ResourceSet* which can be referred to from *CSI-ResourceConfig* or from MAC CEs. |
| ***csi-IM-ResourceToAddModList***  Pool of *CSI-IM-Resource* which can be referred to from *CSI-IM-ResourceSet*. |
| ***csi-LoggedMeasurementConfigToAddModList***  Configured CSI logged measurements for network-side data collection. |
| ***csi-ReportConfigToAddModList***  Configured CSI report settings as specified in TS 38.214 [19] clause 5.2.1.1. |
| ***csi-ResourceConfigToAddModList***  Configured CSI resource settings as specified in TS 38.214 [19] clause 5.2.1.2. |
| ***csi-SSB-ResourceSetToAddModList***  Pool of CSI-SSB-ResourceSet which can be referred to from *CSI-ResourceConfig*. |
| ***ltm-CSI-ReportConfigToAddModList***  Configured CSI report settings for LTM as specified in TS 38.214 [19]. |
| ***nzp-CSI-RS-ResourceSetToAddModList***  Pool of *NZP-CSI-RS-ResourceSet* which can be referred to from *CSI-ResourceConfig* or from MAC CEs. |
| ***nzp-CSI-RS-ResourceToAddModList***  Pool of *NZP-CSI-RS-Resource* which can be referred to from *NZP-CSI-RS-ResourceSet*. |
| ***reportTriggerSize, reportTriggerSizeDCI-0-2***  Size of CSI request field in DCI (bits) (see TS 38.214 [19], clause 5.2.1.5.1). The field *reportTriggerSize* applies to DCI format 0\_1 and the field *reportTriggerSizeDCI-0-2* applies to DCI format 0\_2 (see TS 38.214 [19], clause 5.2.1.5.1). |
| ***scellActivationRS-ConfigToAddModList***  Configured RS for fast SCell activation as specified in TS 38.214 [19] clause 5.2.1.5.3. |
| csi-LoggedMeasurementConfig-quantityConfig  Specifies L3 filter configurations for cell measurement results for the configurable RS Types (e.g. SS/PBCH block and CSI-RS) for theevent evaluation for network side data collection. |

}

**<Change 2>**

#### 5.5x.1.3 Reception of *CSI-LoggedMeasurementConfig* by the UE

Upon receiving *csi-LoggedMeasurementConfigToAddModList* in the *csi-MeasConfig* of a serving cell, the UE shall:

1> for each CSI logged measurement configuration included in *csi-LoggedMeasurementConfigToAddModList*:

2> if the current UE configuation for the serving cell includes the CSI logged measurement configuration associated with the given *csi-LoggedMeasurementConfigId*:

3> modify the CSI logged measurement configuration according to the configuration received in *csi-LoggedMeasurementConfigToAddModList*;

3> reset the associated information (e..g. timeToTrigger) of the CSI logged measurement configuration;

2> else:

3> add the received CSI logged measurement configuration to the UE configuration;

**<Change 3>**

#### 5.5.3.1 General

An RRC\_CONNECTED UE shall derive cell measurement results by measuring one or multiple beams associated per cell as configured by the network, as described in 5.5.3.3. For all cell measurement results, except for RSSI, and CLI measurement results in RRC\_CONNECTED, the UE applies the layer 3 filtering as specified in 5.5.3.2, before using the measured results for evaluation of reporting criteria, measurement reporting or the criteria to trigger conditional reconfiguration execution or event-triggered measurement logging for network-side data collection. For cell measurements, the network can configure RSRP, RSRQ, SINR, RSCP or EcN0 as trigger quantity. For CLI measurements, the network can configure SRS-RSRP or CLI-RSSI as trigger quantity. For cell and beam measurements, reporting quantities can be any combination of quantities (i.e. only RSRP; only RSRQ; only SINR; RSRP and RSRQ; RSRP and SINR; RSRQ and SINR; RSRP, RSRQ and SINR; only RSCP; only EcN0; RSCP and EcN0), irrespective of the trigger quantity, and for CLI measurements, reporting quantities can be either SRS-RSRP or CLI-RSSI. For conditional reconfiguration execution, the network can configure up to 2 quantities, both using same RS type. The UE does not apply the layer 3 filtering as specified in 5.5.3.2 to derive the CBR measurements. The UE does not apply the layer 3 filtering as specified in 5.5.3.2 to derive the Rx-Tx time difference measurements. The UE does not apply the layer 3 filtering as specified in 5.5.3.2 to derive the altitude measurements.

**<Change 4>**

#### 5.5.3.2 Layer 3 filtering

The UE shall:

1> for each cell measurement quantity, each beam measurement quantity, each sidelink measurement quantity as needed in clause 5.8.10, for each CLI measurement quantity that the UE performs measurements according to 5.5.3.1, for each L2 U2N Relay UE measurement quantity according to 5.5.3.4, for evaluating the selected or detected NR sidelink U2N Relay UEs according to 5.8.15.3, for evaluating the SyncRef UE according to 5.8.5 and 5.8.6, for evaluating the NR sidelink U2U Relay/Remote UE threshold conditions according to 5.8.16.2 and 5.8.17.2, for evaluating the conditions for selection and reselection of NR sidelink U2U Relay UE according to 5.8.17.3, and for evaluating the detected NR sidelink U2U Relay UEs according to 5.8.17.4:

2> filter the measured result, before using for evaluation of reporting criteria, for measurement reporting, for U2N/U2U Relay (re)selection evaluation, for evaluating the SyncRef UE, or for evaluation for the event triggered CSI measurement logging by the following formula:

***F*n = (1 – *a*)\**F*n-1 + *a*\**M*n**

where

***Mn*** is the latest received measurement result from the physical layer;

***Fn*** is the updated filtered measurement result, that is used for evaluation of reporting criteria, for measurement reporting, for U2N/U2U Relay (re)selection evaluation or for evaluating the SyncRef UE;

***Fn-1*** is the old filtered measurement result, where ***F0*** is set to ***M1*** when the first measurement result from the physical layer is received; and for *MeasObjectNR*, ***a*** = 1/2(***ki***/4), where ***ki*** is the *filterCoefficient* for the corresponding measurement quantity of the i:th *QuantityConfigNR* in *quantityConfigNR-List*, and *i* is indicated by *quantityConfigIndex* in *MeasObjectNR* or forevent-triggered measurement logging,t*he filterCoefficient* ofthe RS from CSI measurement configuration; for other measurements, ***a*** = 1/2(***k***/4), where ***k*** is the *filterCoefficient* for the corresponding measurement quantity received by the *quantityConfig*; for UTRA-FDD, a = 1/2(k/4), where k is the filterCoefficient for the corresponding measurement quantity received by *quantityConfigUTRA-FDD* in the *QuantityConfig*;

2> adapt the filter such that the time characteristics of the filter are preserved at different input rates, observing that the *filterCoefficient k* assumes a sample rate equal to X ms; The value of X is equivalent to one intra-frequency L1 measurement period as defined in TS 38.133 [14] assuming non-DRX operation, and depends on frequency range.

NOTE 1: If ***k*** is set to 0, no layer 3 filtering is applicable.

NOTE 2: The filtering is performed in the same domain as used for evaluation of reporting criteria, for measurement reporting, for U2N/U2U Relay (re)selection evaluation or for evaluating the SyncRef UE, i.e., logarithmic filtering for logarithmic measurements.

NOTE 3: The filter input rate is implementation dependent, to fulfil the performance requirements set in TS 38.133 [14]. For further details about the physical layer measurements, see TS 38.133 [14].

NOTE 4: For CLI-RSSI measurement, it is up to UE implementation whether to reset filtering upon BWP switch.

NOTE 5: For SSB measurements when multiple altitude range-based *ssb-ToMeasure* are configured, it is up to UE implementation whether to reset filtering upon entering a different altitude range.

NOTE 6: Upon satellite switch with resynchronization, it is up to UE implementation to reset filtering for the serving cell.

**Option b**

**<Change 1>**

#### 5.5.2.8 Quantity configuration

The UE shall:

1> for each RAT for which the received *quantityConfig* includes parameter(s):

2> set the corresponding parameter(s) in *quantityConfig* within *VarMeasConfig* to the value of the received *quantityConfig* parameter(s);

1> for each *measId* included in the *measIdList* within *VarMeasConfig*:

2> remove the measurement reporting entry for this *measId* from the *VarMeasReportList*, if included;

2> stop the periodical reporting timer or timer T321 or timer T322, whichever one is running, and reset the associated information (e.g. *timeToTrigger*) for this *measId*.

1. reset the associated information (e..g. timeToTrigger) of the EventTriggeredConfig for event-triggered measurement logging for network-side data collection.

**<Change 2>**

#### 5.5.3.1 General

An RRC\_CONNECTED UE shall derive cell measurement results by measuring one or multiple beams associated per cell as configured by the network, as described in 5.5.3.3. For all cell measurement results, except for RSSI, and CLI measurement results in RRC\_CONNECTED, the UE applies the layer 3 filtering as specified in 5.5.3.2, before using the measured results for evaluation of reporting criteria, measurement reporting or the criteria to trigger conditional reconfiguration execution or event-triggered measurement logging for network-side data collection. For cell measurements, the network can configure RSRP, RSRQ, SINR, RSCP or EcN0 as trigger quantity. For CLI measurements, the network can configure SRS-RSRP or CLI-RSSI as trigger quantity. For cell and beam measurements, reporting quantities can be any combination of quantities (i.e. only RSRP; only RSRQ; only SINR; RSRP and RSRQ; RSRP and SINR; RSRQ and SINR; RSRP, RSRQ and SINR; only RSCP; only EcN0; RSCP and EcN0), irrespective of the trigger quantity, and for CLI measurements, reporting quantities can be either SRS-RSRP or CLI-RSSI. For conditional reconfiguration execution, the network can configure up to 2 quantities, both using same RS type. The UE does not apply the layer 3 filtering as specified in 5.5.3.2 to derive the CBR measurements. The UE does not apply the layer 3 filtering as specified in 5.5.3.2 to derive the Rx-Tx time difference measurements. The UE does not apply the layer 3 filtering as specified in 5.5.3.2 to derive the altitude measurements.

**<Change 3>**

#### 5.5.3.2 Layer 3 filtering

The UE shall:

1> for each cell measurement quantity, each beam measurement quantity, each sidelink measurement quantity as needed in clause 5.8.10, for each CLI measurement quantity that the UE performs measurements according to 5.5.3.1, for each L2 U2N Relay UE measurement quantity according to 5.5.3.4, for evaluating the selected or detected NR sidelink U2N Relay UEs according to 5.8.15.3, for evaluating the SyncRef UE according to 5.8.5 and 5.8.6, for evaluating the NR sidelink U2U Relay/Remote UE threshold conditions according to 5.8.16.2 and 5.8.17.2, for evaluating the conditions for selection and reselection of NR sidelink U2U Relay UE according to 5.8.17.3, and for evaluating the detected NR sidelink U2U Relay UEs according to 5.8.17.4:

2> filter the measured result, before using for evaluation of reporting criteria, for measurement reporting, for U2N/U2U Relay (re)selection evaluation, for evaluating the SyncRef UE or for evaluation for the event triggered CSI measurement logging by the following formula:

***F*n = (1 – *a*)\**F*n-1 + *a*\**M*n**

where

***Mn*** is the latest received measurement result from the physical layer;

***Fn*** is the updated filtered measurement result, that is used for evaluation of reporting criteria, for measurement reporting, for U2N/U2U Relay (re)selection evaluation or for evaluating the SyncRef UE;

***Fn-1*** is the old filtered measurement result, where ***F0*** is set to ***M1*** when the first measurement result from the physical layer is received; and for *MeasObjectNR*, ***a*** = 1/2(***ki***/4), where ***ki*** is the *filterCoefficient* for the corresponding measurement quantity of the i:th *QuantityConfigNR* in *quantityConfigNR-List*, and *i* is indicated by *quantityConfigIndex* in *MeasObjectNR*; for other measurements, ***a*** = 1/2(***k***/4), where ***k*** is the *filterCoefficient* for the corresponding measurement quantity received by the *quantityConfig*; for UTRA-FDD, a = 1/2(k/4), where k is the filterCoefficient for the corresponding measurement quantity received by *quantityConfigUTRA-FDD* in the *QuantityConfig*;

2> adapt the filter such that the time characteristics of the filter are preserved at different input rates, observing that the *filterCoefficient k* assumes a sample rate equal to X ms; The value of X is equivalent to one intra-frequency L1 measurement period as defined in TS 38.133 [14] assuming non-DRX operation, and depends on frequency range.

NOTE 1: If ***k*** is set to 0, no layer 3 filtering is applicable.

NOTE 2: The filtering is performed in the same domain as used for evaluation of reporting criteria, for measurement reporting, for U2N/U2U Relay (re)selection evaluation or for evaluating the SyncRef UE, i.e., logarithmic filtering for logarithmic measurements.

NOTE 3: The filter input rate is implementation dependent, to fulfil the performance requirements set in TS 38.133 [14]. For further details about the physical layer measurements, see TS 38.133 [14].

NOTE 4: For CLI-RSSI measurement, it is up to UE implementation whether to reset filtering upon BWP switch.

NOTE 5: For SSB measurements when multiple altitude range-based *ssb-ToMeasure* are configured, it is up to UE implementation whether to reset filtering upon entering a different altitude range.

NOTE 6: Upon satellite switch with resynchronization, it is up to UE implementation to reset filtering for the serving cell.

**<Change 4>**

#### – *CSI-LoggedMeasurementConfig*

The IE *CSI-LoggedMeasurementConfig* is used to configure a CSI logged measurement configuration. It defines a group of one or more CSI resources for which the UE logs the associated L1 radio measurements.

*CSI-LoggedMeasurementConfig* information element

-- ASN1START

-- TAG-CSI-LOGGEDMEASUREMENTCONFIG-START

CSI-LoggedMeasurementConfig-r19 ::= SEQUENCE {

csi-LoggedMeasurementConfigId-r19 CSI-LoggedMeasurementConfigId-r19,

csi-LoggedResourceConfig-r19 CSI-ResourceConfigId,

loggingPeriodicity-r19 ENUMERATED {n2, n3, n4, n5, spare4, spare3, spare2, spare1} OPTIONAL, -- Need M

csi-LoggedMeasurementEventTriggerConfig-r19 CSI-LoggedMeasurementEventTriggerConfig-r19 OPTIONAL, -- Need R

...

}

CSI-LoggedMeasurementEventTriggerConfig-r19 ::= SEQUENCE {

threshold-r19 CHOICE {

aboveThreshold-r19 MeasTriggerQuantity,

belowThreshold-r19 MeasTriggerQuantity

},

hysteresis Hysteresis,

timeToTrigger TimeToTrigger,

...

}

-- TAG-CSI-LOGGEDMEASUREMENTCONFIG-STOP

-- ASN1STOP

|  |
| --- |
| *CSI-LoggedMeasurementConfig* field descriptions |
| ***csi-LoggedMeasurementConfigId***  This field indicates the instance of *CSI-LoggedMeasurementConfig*. |
| ***csi-LoggedResourceConfig***  Resources in which the UE performs channel measurement whose associated measurement results are logged by the UE. The *csi-LoggedResourceConfig* indicated here contains only NZP-CSI-RS resources and/or SSB resources. |
| ***csi-LoggedMeasurementEventTriggerConfig***This field is used to configure the UE with event-triggered measurement logging. If this field is included and *threshold* is set to *aboveThreshold*, the UE starts performing logging of measurements when the entering condition as specified in 5.5.4.2 is met and stops logging when the corresponding leaving condition as specified in 5.5.4.2 is met. If this field is included and *threshold* is set to *belowThreshold*, the UE starts performing logging of measurements when the entering condition as specified in 5.5.4.3 is met and stops logging when the corresponding leaving condition as specified in 5.5.4.3 is met. If this field is not included, the UE starts the measurement logging according to *csi-LoggedResourceConfig* upon reception. This field is configured if the serving cell is configured with *servingCellMO* and a measurement identity associated to the measurement object indicated by servingCellMO.. |
| ***loggingPeriodicity***  The periodicity that the UE shall use for the logging of the CSI measurements. The *loggingPeriodicity* is given as a multiple of the periodicity of the resources indicated by *csi-LoggedResourceConfig*. If *loggingPeriodicity* is included and set to 'n2', the UE performs the logging of CSI measurements for every 2nd occasion of the resources, if it is set to 'n3', the UE performs logging of CSI measurements for every 3rd occasion of the resources, and so on. If *loggingPeriodicity* is not included, the UE performs the logging of CSI measurements according to the periodicity of the resources indicated by *csi-LoggedResourceConfig*, i.e. for every occasion of the resources. |

# S053

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S053 | AIML | 1 | Interaction with NTN |  | Aby K Abraham |  | v026 | ToDo |

**[Description]**:

RAN2 to discuss if AI/ML for Phy is supported for NTN. If it is supported,allowedHARQ-mode should be applicable for SRBx

**[Proposed Change]**:

Discuss if AI/ML for Phy is applicable for NTN. If it is applicable, below change is needed.

|  |
| --- |
| *LogicalChannelConfig* field descriptions |
| ***allowedCG-List***  This restriction applies only when the UL grant is a configured grant. If present, UL MAC SDUs from this logical channel can only be mapped to the indicated configured grant configuration. If the size of the sequence is zero, then UL MAC SDUs from this logical channel cannot be mapped to any configured grant configurations. If the field is not present, UL MAC SDUs from this logical channel can be mapped to any configured grant configurations. If the field configuredGrantType1Allowed is present, only those configured grant type 1 configuration indicated in this sequence are allowed for use by this logical channel; otherwise, this sequence shall not include any configured grant type 1 configuration. Corresponds to "allowedCG-List" as specified in TS 38.321 [3]. This field is ignored when SDT procedure is ongoing. |
| ***allowedHARQ-mode***  Indicates the allowed HARQ mode of a HARQ process mapped to this logical channel. If the parameter is absent, there is no restriction for HARQ mode for the mapping. This field applies to SRB1, SRB2, SRB4, SRBx and DRBs. |

**[Comments]**:

# S054

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S054 | AIML | 1 | Interaction with NR-U |  | Aby K Abraham |  | v026 | ToDo |

**[Description]**:

RAN2 to discuss if AI/ML for Phy is applicable for NR-U. If it is not explicitly disallowed, Channel Access Priority Class (CAPC) needs to be configured for SRBx

**[Proposed Change]**:

Discuss if AI/ML for Phy is applicable for NR-U. If it is applicable, below changes are needed.

### 4.2.2 Signalling radio bearers

**<change 1>**

For operation with shared spectrum channel access in FR1, SRB0, SRB1 and SRB3 are assigned with the highest priority Channel Access Priority Class (CAPC), (i.e. CAPC = 1) while CAPC for SRB2,SRBx is configurable.

**<change 2>**

|  |
| --- |
| *LogicalChannelConfig* field descriptions |
| ***channelAccessPriority***  Indicates the Channel Access Priority Class (CAPC), as specified in TS 38.300 [2], to be used on uplink transmissions for operation with shared spectrum channel access in FR1. The network configures this field only for SRB2,SRBx and DRBs. |

**[Comments]**:

# Z010

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z010 | AIML | 1 | UE measurement behavior when *LoggingPeriodicity* is configured |  | Fei |  | v027 | ToDo |

**[Description]**:

In RAN2#131bis meeting, it has been agreed to introduce the logging periodicity for logged NW side data collection, but RAN2 never discuss what is the logging behaviour if the logging periodicity is configured.

In our understanding, the basic intention of logging periodicity is to prevent UE from the logging interruption due to collision between the measurement resources for NW side data collection and measurement resources for other purposes, measurement gap, etc. Based on such intention, NW can provide a number of measurement resources in one logging period, and UE is able to select one of them that is not collided with any other measurements for logging..

**Observation 1: The basic intention of logging periodicity is to prevent UE from the logging interruption due to the collision between measurement resources for NW side data collection and other measurement resources for different purposes, measurement gap, etc.**

However, in the current TS 38.331, the logging periodicity mechanism has been defined as below：

loggingPeriodicity

The periodicity that the UE shall use for the logging of the CSI measurements. The loggingPeriodicity is given as a multiple of the periodicity of the resources indicated by csi-LoggedResourceConfig. If loggingPeriodicity is included and set to 'n2', the UE performs the logging of CSI measurements for every 2nd occasion of the resources, if it is set to 'n3', the UE performs logging of CSI measurements for every 3rd occasion of the resources, and so on. If loggingPeriodicity is not included, the UE performs the logging of CSI measurements according to the periodicity of the resources indicated by csi-LoggedResourceConfig, i.e. for every occasion of the resources.

Based on above description, the UE logging behavior ,if logging periodicity is configured, is shown in below:



It can be seen that, the loggingPeriodicity is just a configurable parameter that directly extends the periodicity of the NZP CSI resources by an integer multiple, UE is still required to perform the measurement on one specific resource for logging which deviates the basic intention of introducing the loggingPeriodicty in observation 1. In other words, NW can adjust the CSI resource periodicity directly instead of introducing an additional parameter (i.e. loggingPeriodicity) to do that, we do not see any values of the current loggingPeriodicity.

**Observation 2: The current loggingPeriodicity is just to extend the periodicity of NZP CSI Resource by an integer multiple, and UE still needs to perform measurement on the certain measurement occasion which seems not helpful for the measurement resource collision case.**

Therefore, we propose to change the UE measurement behavior when *loggingPeridicity* is configured, that is, to allow UE to select any one of measurement resources for logging those are contained in one logging period.

**[Proposed Change]**:

Discuss the true intention of loggingPeriodicity, if the intention is to prevent UE from logging interruption due to the measurement collision, then the propose change is as below:

***LoggingPeriodicity***

The periodicity that the UE shall use for the logging of the CSI measurements. The *loggingPeriodicity* is given as a multiple of the periodicity of the resources indicated by *csi-LoggedResourceConfig*. If *loggingPeriodicity* is included and set to 'n2', the UE performs the logging of CSI measurements for every **two** occasion of the resources, if it is set to 'n3', the UE performs logging of CSI measurements for every **three** occasion of the resources, and so on. If *loggingPeriodicity* is not included, the UE performs the logging of CSI measurements according to the periodicity of the resources indicated by *csi-LoggedResourceConfig*, i.e. for every occasion of the resources.

**[Comments]**:

# Z011

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z010 | AIML | 1 | The scenario where *TimeGap* indication presence |  | Fei |  | v027 | ToDo |

**[Description]**:

In the current version of specification, the time gap indication agreed to have for the BM case 2, please see below agreements

* **For temporal domain, the network is made aware whether there is a gap between two consecutive samples. FFS amount of gap and whether this is implicit or explicit**

In this agreement, the time gap indication is just needed for the BM case 2 as the continuous data collection is critical for training the NW side model of BM case 2. However, in the current text procedure for data logging, the time gap indication is mandatory for both use cases which seems not necessary:

|  |
| --- |
| 5.5x.3.2 Initiation The UE shall:  1> for each CSI logged measurement configurationassociated with a *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport,* perform the logging of measurements for the serving cell associated with *cellId*, in accordance with the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*:  2> if the *csi-LoggedMeasurementEventTriggerConfig* is not included and the buffer[for network-side data collection is not full:  3> perform the logging at regular time intervals,[ according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;  2> if the *csi-LoggedMeasurementEventTriggerConfig* is included and the buffer for network-side data collection is not full:  3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the entering condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or  3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the entering condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:  4> perform the logging at regular time intervals, according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;  3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the leaving condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or  3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the leaving condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:  4> stop performing the logging for the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*;  2> when performing the logging:  3> for each CSI logged measurement configuration associated to *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport*:  4> set the *csi-RS-MeasResultList* and *SSB-MeasResultList* to include the quantities the UE is logging measurements for, upon receiving the quantities from the lower layers;  4> if the time between the measurements that are logged and included in this instance of *csi-LogMeasInfoList* and the measurements for the previous instance of *csi-LogMeasInfoList* with the same *refCSI-LoggedMeasurementConfigId*, for the same serving cell, is longer than the logging periodicity (if configured) or the periodicity of the measurement resources (if the logging periodicity is not configured):  5> set the *timeGap* to *true*;  2> when the memory reserved for the logged measurement information for data collection becomes full, stop logging;  2> when the memory reserved for the logged measurement information for data collection is no longer full, resume logging. |

**[Proposed Change]**:

#### – *CSI-LoggedMeasurementConfig*

The IE *CSI-LoggedMeasurementConfig* is used to configure a CSI logged measurement configuration. It defines a group of one or more CSI resources for which the UE logs the associated L1 radio measurements.

*CSI-LoggedMeasurementConfig* information element

-- ASN1START

-- TAG-CSI-LOGGEDMEASUREMENTCONFIG-START

CSI-LoggedMeasurementConfig-r19 ::= SEQUENCE {

csi-LoggedMeasurementConfigId-r19 CSI-LoggedMeasurementConfigId-r19,

csi-LoggedResourceConfig-r19 CSI-ResourceConfigId,

loggingPeriodicity-r19 ENUMERATED {n2, n3, n4, n5, spare4, spare3, spare2, spare1} OPTIONAL, -- Need M[RIL]: B203, AIML

csi-LoggedMeasurementEventTriggerConfig-r19 CSI-LoggedMeasurementEventTriggerConfig-r19 OPTIONAL, -- Need R

enableTimeGap-r19 ENUMERATED {True} OPTIONAL, -- Need R

...

}

CSI-LoggedMeasurementEventTriggerConfig-r19 ::= SEQUENCE {

threshold-r19 CHOICE {

aboveThreshold-r19 MeasTriggerQuantity,

belowThreshold-r19 MeasTriggerQuantity

},

hysteresis Hysteresis,

timeToTrigger TimeToTrigger,

...

}

-- TAG-CSI-LOGGEDMEASUREMENTCONFIG-STOP

-- ASN1STOP

|  |
| --- |
| *CSI-LoggedMeasurementConfig* field descriptions |
| ***csi-LoggedMeasurementConfigId***  This field indicates the instance of *CSI-LoggedMeasurementConfig*. |
| ***csi-LoggedResourceConfig***  Resources in which the UE performs channel measurement whose associated measurement results are logged by the UE. The *csi-LoggedResourceConfig* indicated here contains only NZP-CSI-RS resources and/or SSB resources. |
| ***csi-LoggedMeasurementEventTriggerConfig***This field is used to configure the UE with event-triggered measurement logging. If this field is included and *threshold* is set to *aboveThreshold*, the UE starts performing logging of measurements when the entering condition as specified in 5.5.4.2 is met and stops logging when the corresponding leaving condition as specified in 5.5.4.2 is met. If this field is included and *threshold* is set to *belowThreshold*, the UE starts performing logging of measurements when the entering condition as specified in 5.5.4.3 is met and stops logging when the corresponding leaving condition as specified in 5.5.4.3 is met. If this field is not included, the UE starts the measurement logging according to *csi-LoggedResourceConfig* upon reception. |
| ***loggingPeriodicity***  The periodicity that the UE shall use for the logging of the CSI measurements. The *loggingPeriodicity* is given as a multiple of the periodicity of the resources indicated by *csi-LoggedResourceConfig*. If *loggingPeriodicity* is included and set to 'n2', the UE performs the logging of CSI measurements for every 2nd occasion of the resources, if it is set to 'n3', the UE performs logging of CSI measurements for every 3rd occasion of the resources, and so on. If *loggingPeriodicity* is not included, the UE performs the logging of CSI measurements according to the periodicity of the resources indicated by *csi-LoggedResourceConfig*, i.e. for every occasion of the resources. |

#### 5.5x.3.2 Initiation

The UE shall:

1> for each CSI logged measurement configurationassociated with a *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport,* perform the logging of measurements for the serving cell associated with *cellId*, in accordance with the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*:

2> if the *csi-LoggedMeasurementEventTriggerConfig* is not included and the buffer[for network-side data collection is not full:

3> perform the logging at regular time intervals,[ according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;

2> if the *csi-LoggedMeasurementEventTriggerConfig* is included and the buffer for network-side data collection is not full:

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the entering condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the entering condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:

4> perform the logging at regular time intervals, according to *loggingPeriodicity* (if present) or according to the periodicity of the resources indicated by *csi-LoggedResourceConfig* in the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*, if *loggingPeriodicity* is not present;

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *aboveThreshold* and the leaving condition, as specified in 5.5.4.2, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*; or

3> if *threshold* within *csi-LoggedMeasurementEventTriggerConfig* is set to *belowThreshold* and the leaving condition, as specified in 5.5.4.3, is fulfilled for the serving cell associated with *cellId* for all measurements taken during *timeToTrigger*:

4> stop performing the logging for the corresponding CSI logged measurement configuration within *csi-LoggedMeasurementConfigToAddModList*;

2> when performing the logging:

3> for each CSI logged measurement configuration associated to *refCSI-LoggedMeasurementConfigId* in *csi-LogMeasInfoList* in *VarCSI-LogMeasReport*:

4> set the *csi-RS-MeasResultList* and *SSB-MeasResultList* to include the quantities the UE is logging measurements for, upon receiving the quantities from the lower layers;

4> if the *enableTimeGap* is set to true in the associated *csi-LoggedMeasurementConfig* and the time between the measurements that are logged and included in this instance of *csi-LogMeasInfoList* and the measurements for the previous instance of *csi-LogMeasInfoList* with the same *refCSI-LoggedMeasurementConfigId*, for the same serving cell, is longer than the logging periodicity (if configured) or the periodicity of the measurement resources (if the logging periodicity is not configured):

5> set the *timeGap* to *true*;

2> when the memory reserved for the logged measurement information for data collection becomes full, stop logging;

2> when the memory reserved for the logged measurement information for data collection is no longer full, resume logging.

**[Comments]**:

# S041

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| S041 | AIML | 2 | ToAddModList and To ReleaseList for candidate configuration |  | Seung-Beom |  | v028 | ToDo |

**[Description]**: According to current ASN.1 structure, when NW adds/releases/modifies each serving cell, NW has to provide all configuration list. i.e., No delta signaling is supported.

For example, UE is configured with three DataCollectionCandidateConfig-r19 for 3 serving cell. When NW adds one more serving cell to UE (i.e., totally 4 serving cells), there is no way for NW to provide only one new DataCollectionCandidateConfig-r19 for the new cell. i.e., NW has to not only provide the new DataCollectionCandidateConfig-r19 but also the old three DataCollectionCandidateConfig-r19 again.

**[Proposed Change]**:

This can be implemented together with X004. So, we propose:

DataCollectionPreferenceConfig-r19 ::= SEQUENCE {

~~dataCollectionCandidateConfigList-r19 SEQUENCE (SIZE (1..maxNrofServingCells)) OF DataCollectionCandidateConfig-r19 OPTIONAL, -- Need R~~

dataCollectionCandidateConfig**ToAddModList**-r19 SEQUENCE (SIZE (1..maxNrofServingCells)) OF DataCollectionCandidateConfig-r19 OPTIONAL, -- Need N

dataCollectionCandidateConfig**ToReleaseList**-r19 SEQUENCE (SIZE (1..maxNrofServingCells)) OF ServCellIndex OPTIONAL, -- Need N

...

}

DataCollectionCandidateConfig-r19 ::= SEQUENCE {

dataCollectionServCellIndex-r19 ServCellIndex,

~~dataCollectionCandidateConfigParameterList-r19 SEQUENCE (SIZE (1..maxCandidateConfig-r19)) OF DataCollectionCandidateConfigParameters-r19 OPTIONAL, -- Need R~~

dataCollectionCandidateConfigParameter**ToAddModList**-r19 SEQUENCE (SIZE (1.. maxCandidateConfig-r19)) OF DataCollectionCandidateConfigParameters-r19 OPTIONAL, -- Need N

dataCollectionCandidateConfigParameter**ToReleaseList**-r19 SEQUENCE (SIZE (1.. maxCandidateConfig-r19)) OF DataCollectionCandidateConfigId-r19 OPTIONAL, -- Need N

...

}

DataCollectionCandidateConfigParameters-r19 ::= SEQUENCE {

dataCollectionCandidateConfigId-r19 DataCollectionCandidateConfigId-r19,

resourcesForChannelMeasurement CSI-ResourceConfigId OPTIONAL, -- Need R

resourcesForChannelPrediction-r19 CSI-ResourceConfigId OPTIONAL, -- Need R

associatedIdForChannelMeasurement-r19 AssociatedId-r19 OPTIONAL, -- Need R

associatedIdForChannelPrediction-r19 AssociatedId-r19 OPTIONAL, -- Need R

...

}

**[Comments]**: