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]**:

# C071

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

 **[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]**:

# 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 | ToDo |

 **[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]**:

# 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 | ToDo |

 **[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]**:

# 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.

# 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.

# 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 | ToDo |

 **[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]**:

# C075

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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]**:

# 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 | ToDo |

 **[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]**:

# B202

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | ToDo |

 **[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]**:

# 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 | ToDo |

 **[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]**:

# C076

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

 **[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]**:

# C077

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

 **[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]**:

# 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

# J008

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| J008 | AIML | 1 | Setting *csi-LogMeasInfoList* in *UEInformationResponse* |  | 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]**:

# 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 |  | 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]**:

# 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”

# 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”

# N071

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

 **[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]**:

# N026

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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

# N027

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

 **[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]**:

# B203

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

 **[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]**:

# N028

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| N028 | AIML | 2 | Reuse of A1/A2 events for NW-side logging | N/A | 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]**:

# 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 | ToDo |

 **[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]**:

# 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 | N/A | 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]**:

# 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 | ToDo |

 **[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]**:

# N023

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | ToDo |

 **[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]**:

# C078

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

 **[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]**:

# C079

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

 **[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]**:

# C080

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

 **[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

# 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.

# 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

 ...

}

# H002

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H002 | AIML | 1 | Retaining logged measurements during LTM |  | 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]**:

# 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 | ToDo |

 **[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]**:

# H005

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

 **[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]**:

# 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]**:

# 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 | ToDo |

 **[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]**:

# 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 | ToDo |

 **[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]**:

# B205

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

 **[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]**:

# 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 | ToDo |

 **[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]**:

# C081

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

 **[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]**:

# C082

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

 **[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]**:

# H006

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

 **[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.

# 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 | ToDo |

 **[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]**:

# H007

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H007 | AIML | 1 | Logged measurement configuration modification and release |  | 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]**:

# V100

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

 **[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]**:

# V101

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

 **[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]**:

# V102

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

 **[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]**:

# V103

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

 **[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]**:

# V104

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

 **[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]**:

# V105

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

 **[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]**:

# V106

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

 **[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]**:

# 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]**:

# X002

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

 **[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]**:

# 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]**:

# X004

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X004 | AIML | 1 | candidate data collection configuration |  | 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]**:

# 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 |  | Fei |  | V013 | 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* and which is not formally configured to the UE within CSI-MeasConfig, there is no need for UE to provide the information of the *releaseConfigurationPrefernece* in the *RRCReconfigurationComplete*

**[Proposed Change]**:

Remove this part from the specification directly..

**[Comments]**:

# 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 |  | Fei |  | V013 | 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* but not formally configured to the UE within CSI-MeasConfig, there is no need for UE to provide the information of the *releaseConfigurationPrefernece* in the UAI.

**[Proposed Change]**:

Remove this part from the specification directly..

**[Comments]**:

# 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 |  | V013 | ToDo |

**[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]**:

# 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 |  | Fei |  | V013 | 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

**[Comments]**:

# 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 |  | Fei |  | V013 | 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]**:

It is proposed that UE shall indicate to the lower layer that L1 measurement shall be started when UE start or resume performing the logging, and UE shall indicated to the lower layer that L1 measurement shall be stopped when UE stop logging.

**[Comments]**:

# Z006

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Z005 |  | Class 1 | The field description of *applicabilityReportList* in *RRCReconfigurationComplete* |  | Fei |  | V013 | 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. |

# H003

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H003 | AIML | 2 | Configuration for UE data collection |  | 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]**:

# 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]**:

# 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 |  | 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]**:

# 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 |  | 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

 ...

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 **[Comments]**: