AIML Comments file

Template:

# Xnnn

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

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

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

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

# 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]**:

# 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

# 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]**:

# N034

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

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

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

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

# 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]**:

# 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]**:

# N026

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

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

**[Proposed Change]**:

UEInformationResponse-v19xy-IEs ::= SEQUENCE {

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

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

nonCriticalExtension SEQUENCE {} OPTIONAL

}

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

logMeasReportType-r19 CHOICE {

csi-LogMeasReport-r19 CSI-LogMeasReport-r19,

spare3 NULL,

spare2 NULL,

spare1 NULL

},

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

}

**[Comments]**:

# 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]**:

# 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]**:

# 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

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| 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

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

|  |  |  |  |  |  |  |  |  |
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| 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

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

# 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]**:

# 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]**:

# 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]**:

# 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]**:

# 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]**:

# 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]**:

# 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]**: