#

FIRST CHANGE

## 5.3 Connection control

### 5.3.5 RRC reconfiguration

<Text Omitted>

#### 5.3.5.9 Other configuration

The UE shall:

<Text Omitted>

1> if the received *otherConfig* includes the *ul-TrafficInfoReportingConfig*:

2> if *ul-TrafficInfoReportingConfig* is set to *setup*:

3> consider itself to be configured to provide UL traffic information in accordance with 5.7.4;

2> else:

3> consider itself not to be configured to provide UL traffic information and stop all instances of timer T346l, if running;

1> if the received *otherConfig* includes *n3c-RelayUE-InfoReportConfig*:

2> consider itself to be configured to report relay UE information with non-3GPP connection(s).

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

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

3> consider itself to be configured to report applicability information of configurations subject to the applicability determination procedure in accordance with 5.7.4;

2> else:

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

Editor's Note: FFS where/how to define 'applicability determination procedure' in a generic way that covers multiple use cases.

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

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 data collection in accordance with 5.7.4;

2> else:

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

NOTE: UE does not need to measure radio measurement resources provided in *DataCollectionPreferenceConfig.*

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

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

3> consider itself to be configured to report assistance information related to logging of L1 radio measurements in accordance with 5.7.4;

2> else:

3> consider itself not to be configured to report assistance information related to logging of L1 radio measurements.

NEXT CHANGE

## 5.7 Other

<Text Omitted>

### 5.7.4 UE Assistance Information

#### 5.7.4.1 General



Figure 5.7.4.1-1: UE Assistance Information

The purpose of this procedure is for the UE to inform the network of:

- its delay budget report carrying desired increment/decrement in the connected mode DRX cycle length; or

- its overheating assistance information; or

- its IDC assistance information; or

- its preference on DRX parameters for power saving; or

- its preference on the maximum aggregated bandwidth for power saving; or

- its preference on the maximum number of secondary component carriers for power saving; or

- its preference on the maximum number of MIMO layers for power saving; or

- its preference on the minimum scheduling offset for cross-slot scheduling for power saving; or

- its preference on the RRC state; or

- configured grant assistance information for NR sidelink communication; or

- its preference in being provisioned with reference time information; or

- its preference for FR2 UL gap; or

- its preference to transition out of RRC\_CONNECTED state for MUSIM operation; or

- its preference on the MUSIM gaps; or

- its preference on the MUSIM gap priority; or

- its preference on keeping the colliding MUSIM gaps; or

- its preference on the MUSIM temporary capability restriction; or

- its relaxation state for RLM measurements; or

- its relaxation state for BFD measurements; or

- availability of data and/or signalling mapped to radio bearers which are not configured for SDT; or

- its preference for the SCG to be deactivated; or

- availability of uplink data to transmit for a DRB for which there is no MCG RLC bearer while the SCG is deactivated; or

- change of its fulfilment status for RRM measurement relaxation criterion; or

- service link (specified in TS 38.300 [2]) propagation delay difference between serving cell and neighbour cell(s); or

- its preference on multi-Rx operation for FR2; or

- availability of flight path information for Aerial UE operation; or

- UL traffic information; or

- the information of the relay UE(s) with which it connects via a non-3GPP connection for MP; or

- configured grant assistance information for NR sidelink positioning.

- applicability of configurations subject to the applicability determination procedure; or

- its preference to be configured with radio resources to perform UE data collection; or

- its assistance information related to logging of measurements for network data collection.

#### 5.7.4.2 Initiation

<Text Omitted>

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 related radio measurement predictions and upon change of the applicability of the configurations related to radio measurement predictions.

A UE capable of providing its preference to be configured with radio resources to perform UE data collection may initiate the procedure if it was configured to do so, upon determining that it would like to perform UE data collection or upon determining that it no longer prefers to perform UE data collection.

A UE capable of providing assistance information related to logging of measurements for network data collection, may initiate the procedure if it was configured to do so, upon determining that it is in low power state, or upon determining that the buffer reserved for the logging of L1 radio measurements is full, or upon determining that the amount of logged data related to L1 radio measurements logging reached a configured buffer threshold.

Editor's Note: FFS the need to adjust the above new AI/ML procedures based on further RAN2 progress.

Upon initiating the procedure, the UE shall:

<Text Omitted>

1> if configured to provide configured grant assistance information for NR sidelink positioning:

2> initiate transmission of the *UEAssistanceInformation* message in accordance with 5.7.4.3 to provide configured grant assistance information for NR sidelink positioning;

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

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

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

Editor's Note: FFS whether to update the procedure for option B.

1> if configured to provide its preference to be configured with radio measurement resources for UE data collection:

2> if the UE has a preference to be configured with radio measurement resources to perform UE data collection; or

2> if the current preference to be configured with radio measurement resources to perform UE data collection is different from the one indicated in the last transmission of the *UEAssistanceInformation* message including *dataCollectionPreference*:

3> initiate transmission of the *UEAssistanceInformation* message in accordance with 5.7.4.3 to report the UE preference to be configured with radio measurement resources for UE data collection;

Editor's Note: FFS other procedures, e.g. prohibit timer.

1> if configured to provide assistance information related to logging of measurements for network data collection:

2> if the UE determines to be in low power state; or

2> if the buffer reserved for the logging of radio measurements is full; or

2> if the amount of logged data related to L1 radio measurements logging is equal to or above the *loggedDataCollectionBufferThreshold*:

3> initiate transmission of the *UEAssistanceInformation* message in accordance with 5.7.4.3 to provide assistance information related to logging of measurements for network data collection.

NOTE: It is up to UE implementation how to determine a low power state and whether the buffer threshold is reached.

Editor's Note: FFS the need to introduce further procedures, e.g. prohibit timers, indication that battery state is not low any longer, etc.

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

The UE shall set the contents of the *UEAssistanceInformation* message as follows:

<Text Omitted>

1> if transmission of the *UEAssistanceInformation* message is initiated to report relay UE information with non-3GPP connection(s) according to 5.7.4.2:

2> include *n3c-relayUE-InfoList* in the *UEAssistanceInformation* message;

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

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

2> for each serving cell configured with at least one *reportConfigId* associated to a *CSI-ReportConfig* including a configuration for measurement predictions for which the applicability information has changed:

3> include an entry in *applicabilityReportList* in the *UEAssistanceInformation* message, 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 a configuration for measurement predictions:

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

6> set the *applicabilityReportConfigId* to the corresponding *reportConfigId*;

6> set the *applicabilityStatus* to the applicability status of the configuration for measurement predictions corresponding to the *applicabilityReportConfigId*;

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

7> set the *inapplicabilityCause* for the configuration for measurements predictions to the cause of inapplicability;

Editor's Note: FFS if applicability reporting is supported for multiple serving cells and *applicabilityCellId* is needed to unambiguously identify CSI report configurations for prediction.

Editor's Note: FFS how to capture option B (sets of inference related parameters).

1> if transmission of the *UEAssistanceInformation* message is initiated to report the UE preference to be configured with radio resources to perform UE 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> set *dataCollectionStartStop* to *start*;

3> if the UE has one or more preferred radio resource configurations from the candidate configurations in *dataCollectionCandidateConfigList*:

4> include *dataCollectionPreferredConfigurationList* and set the content to the *DataCollectionCandidateConfigId (Solution 1)/CSI-ReportConfigId (solution 2/3)* values corresponding to preferred configurations;

2> else (if the UE no longer prefers to be configured with radio resources to perform data collection):

3> set *dataCollectionStartStop* to *stop*;

Editor's Note: FFS details of signaling and how to refer to a preferred radio resource candidate configuration from a list of candidate configurations provided by NW.

1> if transmission of the *UEAssistanceInformation* message is initiated to provide assistance information related to logging of measurements for network data collection according to 5.7.4.2:

2> if the UE determines to be in low power state:

3> set *lowPowerState* to *true*;

2> if the bufferreserved for the logging of L1 radio measurements is full:

3> set *bufferStatus* to *full*;

2> else if the amount of logged data related to L1 radio measurements logging is equal to or above the *loggedDataCollectionBufferThreshold*:

3> set *bufferStatus* to *aboveThreshold*;

Editor's Note: FFS the need to clarify when/how the above fields are signalled, e.g when/how the UE indicates that the UE is not any longer in low power state or with memory full.

Editor's Note: FFS the encoding of the data availability indication/UAI and the cause value.

The UE shall set the contents of the *UEAssistanceInformation* message for configured grant assistance information for NR sidelink communication or NR sidelink positioning:

1> if configured to provide configured grant assistance information for NR sidelink:

2> include the *sl-UE-AssistanceInformationNR*;

1> if configured to provide configured grant assistance information for NR sidelink positioning:

2> include the *sl-PRS-UE-AssistanceInformationNR*;

NOTE 4: It is up to UE implementation when and how to trigger configured grant assistance information for NR sidelink communication or NR sidelink positioning.

The UE shall:

1> if the procedure was triggered to provide configured grant assistance information for NR sidelink communication by an NR *RRCReconfiguration* message that was embedded within an E-UTRA *RRCConnectionReconfiguration*:

2> submit the *UEAssistanceInformation* to lower layers via SRB1, embedded in E-UTRA RRC message *ULInformationTransferIRAT* as specified in TS 36.331 [10], clause 5.6.28;

1> else if the procedure was triggered to provide UE preference for SCG deactivation or to indicate that the UE with a deactivate SCG has uplink data to send on a DRB for which there is no MCG RLC bearer:

2> submit the *UEAssistanceInformation* via SRB1 to lower layers for transmission;

1> else if the UE is in (NG)EN-DC:

2> if SRB3 is configured and the SCG is not deactivated:

3> submit the *UEAssistanceInformation* message via SRB3 to lower layers for transmission;

2> else:

3> submit the *UEAssistanceInformation* message via the E-UTRA MCG embedded in E-UTRA RRC message *ULInformationTransferMRDC* as specified in TS 36.331 [10].

1> else if the UE is in NR-DC:

2> if the UE assistance configuration that triggered this UE assistance information is associated with the SCG:

3> if SRB3 is configured and the SCG is not deactivated:

4> submit the *UEAssistanceInformation* message via SRB3 to lower layers for transmission;

3> else:

4> submit the *UEAssistanceInformation* message via the NR MCG embedded in NR RRC message *ULInformationTransferMRDC* as specified in5.7.2a.3;

2> else:

3> submit the *UEAssistanceInformation* message via SRB1 to lower layers for transmission;

1> else:

2> submit the *UEAssistanceInformation* message to lower layers for transmission.

NEXT CHANGE

## 6.2 RRC messages

<Text Omitted>

### 6.2.2 Message definitions

<Text Omitted>

#### – *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

UEAssistanceInformation ::= SEQUENCE {

 criticalExtensions CHOICE {

 ueAssistanceInformation UEAssistanceInformation-IEs,

 criticalExtensionsFuture SEQUENCE {}

 }

}

UEAssistanceInformation-IEs ::= SEQUENCE {

 delayBudgetReport DelayBudgetReport OPTIONAL,

 lateNonCriticalExtension OCTET STRING OPTIONAL,

 nonCriticalExtension UEAssistanceInformation-v1540-IEs OPTIONAL

}

DelayBudgetReport::= CHOICE {

 type1 ENUMERATED {

 msMinus1280, msMinus640, msMinus320, msMinus160,msMinus80, msMinus60, msMinus40,

 msMinus20, ms0, ms20,ms40, ms60, ms80, ms160, ms320, ms640, ms1280},

 ...

}

UEAssistanceInformation-v1540-IEs ::= SEQUENCE {

 overheatingAssistance OverheatingAssistance OPTIONAL,

 nonCriticalExtension UEAssistanceInformation-v1610-IEs OPTIONAL

}

OverheatingAssistance ::= SEQUENCE {

 reducedMaxCCs ReducedMaxCCs-r16 OPTIONAL,

 reducedMaxBW-FR1 ReducedMaxBW-FRx-r16 OPTIONAL,

 reducedMaxBW-FR2 ReducedMaxBW-FRx-r16 OPTIONAL,

 reducedMaxMIMO-LayersFR1 SEQUENCE {

 reducedMIMO-LayersFR1-DL MIMO-LayersDL,

 reducedMIMO-LayersFR1-UL MIMO-LayersUL

 } OPTIONAL,

 reducedMaxMIMO-LayersFR2 SEQUENCE {

 reducedMIMO-LayersFR2-DL MIMO-LayersDL,

 reducedMIMO-LayersFR2-UL MIMO-LayersUL

 } OPTIONAL

}

OverheatingAssistance-r17 ::= SEQUENCE {

 reducedMaxBW-FR2-2-r17 SEQUENCE {

 reducedBW-FR2-2-DL-r17 ReducedAggregatedBandwidth-r17,

 reducedBW-FR2-2-UL-r17 ReducedAggregatedBandwidth-r17

 } OPTIONAL,

 reducedMaxMIMO-LayersFR2-2 SEQUENCE {

 reducedMIMO-LayersFR2-2-DL MIMO-LayersDL,

 reducedMIMO-LayersFR2-2-UL MIMO-LayersUL

 } OPTIONAL

}

ReducedAggregatedBandwidth ::= ENUMERATED {mhz0, mhz10, mhz20, mhz30, mhz40, mhz50, mhz60, mhz80, mhz100, mhz200, mhz300, mhz400}

ReducedAggregatedBandwidth-r17 ::= ENUMERATED {mhz0, mhz100, mhz200, mhz400, mhz800, mhz1200, mhz1600, mhz2000}

UEAssistanceInformation-v1610-IEs ::= SEQUENCE {

 idc-Assistance-r16 IDC-Assistance-r16 OPTIONAL,

 drx-Preference-r16 DRX-Preference-r16 OPTIONAL,

 maxBW-Preference-r16 MaxBW-Preference-r16 OPTIONAL,

 maxCC-Preference-r16 MaxCC-Preference-r16 OPTIONAL,

 maxMIMO-LayerPreference-r16 MaxMIMO-LayerPreference-r16 OPTIONAL,

 minSchedulingOffsetPreference-r16 MinSchedulingOffsetPreference-r16 OPTIONAL,

 releasePreference-r16 ReleasePreference-r16 OPTIONAL,

 sl-UE-AssistanceInformationNR-r16 SL-UE-AssistanceInformationNR-r16 OPTIONAL,

 referenceTimeInfoPreference-r16 BOOLEAN OPTIONAL,

 nonCriticalExtension UEAssistanceInformation-v1700-IEs OPTIONAL

}

UEAssistanceInformation-v1700-IEs ::= SEQUENCE {

 ul-GapFR2-Preference-r17 UL-GapFR2-Preference-r17 OPTIONAL,

 musim-Assistance-r17 MUSIM-Assistance-r17 OPTIONAL,

 overheatingAssistance-r17 OverheatingAssistance-r17 OPTIONAL,

 maxBW-PreferenceFR2-2-r17 MaxBW-PreferenceFR2-2-r17 OPTIONAL,

 maxMIMO-LayerPreferenceFR2-2-r17 MaxMIMO-LayerPreferenceFR2-2-r17 OPTIONAL,

 minSchedulingOffsetPreferenceExt-r17 MinSchedulingOffsetPreferenceExt-r17 OPTIONAL,

 rlm-MeasRelaxationState-r17 BOOLEAN OPTIONAL,

 bfd-MeasRelaxationState-r17 BIT STRING (SIZE (1..maxNrofServingCells)) OPTIONAL,

 nonSDT-DataIndication-r17 SEQUENCE {

 resumeCause-r17 ResumeCause OPTIONAL

 } OPTIONAL,

 scg-DeactivationPreference-r17 ENUMERATED { scg-DeactivationPreferred, noPreference } OPTIONAL,

 uplinkData-r17 ENUMERATED { true } OPTIONAL,

 rrm-MeasRelaxationFulfilment-r17 BOOLEAN OPTIONAL,

 propagationDelayDifference-r17 PropagationDelayDifference-r17 OPTIONAL,

 nonCriticalExtension UEAssistanceInformation-v1800-IEs OPTIONAL

}

UEAssistanceInformation-v1800-IEs ::= SEQUENCE {

 idc-FDM-Assistance-r18 IDC-FDM-Assistance-r18 OPTIONAL,

 idc-TDM-Assistance-r18 IDC-TDM-Assistance-r18 OPTIONAL,

 multiRx-PreferenceFR2-r18 ENUMERATED {single, multiple } OPTIONAL,

 musim-Assistance-v1800 MUSIM-Assistance-v1800 OPTIONAL,

 flightPathInfoAvailable-r18 ENUMERATED {true} OPTIONAL,

 ul-TrafficInfo-r18 UL-TrafficInfo-r18 OPTIONAL,

 n3c-RelayUE-InfoList-r18 SEQUENCE (SIZE (0..8)) OF N3C-RelayUE-Info-r18 OPTIONAL,

 sl-PRS-UE-AssistanceInformationNR-r18 SL-PRS-UE-AssistanceInformationNR-r18 OPTIONAL,

 nonCriticalExtension UEAssistanceInformation-v19xy-IEs OPTIONAL

}

UEAssistanceInformation-v19xy-IEs ::= SEQUENCE {

 applicabilityReportList-r19 ApplicabilityReportList-r19 OPTIONAL,

 dataCollectionPreference-r19 DataCollectionPreference-r19 OPTIONAL,

 loggedDataCollectionAssistance-r19 LoggedDataCollectionAssistance-r19 OPTIONAL,

 nonCriticalExtension SEQUENCE {} OPTIONAL

}

IDC-Assistance-r16 ::= SEQUENCE {

 affectedCarrierFreqList-r16 AffectedCarrierFreqList-r16 OPTIONAL,

 affectedCarrierFreqCombList-r16 AffectedCarrierFreqCombList-r16 OPTIONAL,

 ...

}

AffectedCarrierFreqList-r16 ::= SEQUENCE (SIZE (1.. maxFreqIDC-r16)) OF AffectedCarrierFreq-r16

AffectedCarrierFreq-r16 ::= SEQUENCE {

 carrierFreq-r16 ARFCN-ValueNR,

 interferenceDirection-r16 ENUMERATED {nr, other, both, spare}

}

AffectedCarrierFreqCombList-r16 ::= SEQUENCE (SIZE (1..maxCombIDC-r16)) OF AffectedCarrierFreqComb-r16

AffectedCarrierFreqComb-r16 ::= SEQUENCE {

 affectedCarrierFreqComb-r16 SEQUENCE (SIZE (2..maxNrofServingCells)) OF ARFCN-ValueNR OPTIONAL,

 victimSystemType-r16 VictimSystemType-r16

}

VictimSystemType-r16 ::= SEQUENCE {

 gps-r16 ENUMERATED {true} OPTIONAL,

 glonass-r16 ENUMERATED {true} OPTIONAL,

 bds-r16 ENUMERATED {true} OPTIONAL,

 galileo-r16 ENUMERATED {true} OPTIONAL,

 navIC-r16 ENUMERATED {true} OPTIONAL,

 wlan-r16 ENUMERATED {true} OPTIONAL,

 bluetooth-r16 ENUMERATED {true} OPTIONAL,

 ...,

 [[

 uwb-r18 ENUMERATED {true} OPTIONAL

 ]]

}

DRX-Preference-r16 ::= SEQUENCE {

 preferredDRX-InactivityTimer-r16 ENUMERATED {

 ms0, ms1, ms2, ms3, ms4, ms5, ms6, ms8, ms10, ms20, ms30, ms40, ms50, ms60, ms80,

 ms100, ms200, ms300, ms500, ms750, ms1280, ms1920, ms2560, spare9, spare8,

 spare7, spare6, spare5, spare4, spare3, spare2, spare1} OPTIONAL,

 preferredDRX-LongCycle-r16 ENUMERATED {

 ms10, ms20, ms32, ms40, ms60, ms64, ms70, ms80, ms128, ms160, ms256, ms320, ms512,

 ms640, ms1024, ms1280, ms2048, ms2560, ms5120, ms10240, spare12, spare11, spare10,

 spare9, spare8, spare7, spare6, spare5, spare4, spare3, spare2, spare1 } OPTIONAL,

 preferredDRX-ShortCycle-r16 ENUMERATED {

 ms2, ms3, ms4, ms5, ms6, ms7, ms8, ms10, ms14, ms16, ms20, ms30, ms32,

 ms35, ms40, ms64, ms80, ms128, ms160, ms256, ms320, ms512, ms640, spare9,

 spare8, spare7, spare6, spare5, spare4, spare3, spare2, spare1 } OPTIONAL,

 preferredDRX-ShortCycleTimer-r16 INTEGER (1..16) OPTIONAL

}

MaxBW-Preference-r16 ::= SEQUENCE {

 reducedMaxBW-FR1-r16 ReducedMaxBW-FRx-r16 OPTIONAL,

 reducedMaxBW-FR2-r16 ReducedMaxBW-FRx-r16 OPTIONAL

}

MaxBW-PreferenceFR2-2-r17 ::= SEQUENCE {

 reducedMaxBW-FR2-2-r17 SEQUENCE {

 reducedBW-FR2-2-DL-r17 ReducedAggregatedBandwidth-r17 OPTIONAL,

 reducedBW-FR2-2-UL-r17 ReducedAggregatedBandwidth-r17 OPTIONAL

 } OPTIONAL

}

MaxCC-Preference-r16 ::= SEQUENCE {

 reducedMaxCCs-r16 ReducedMaxCCs-r16 OPTIONAL

}

MaxMIMO-LayerPreference-r16 ::= SEQUENCE {

 reducedMaxMIMO-LayersFR1-r16 SEQUENCE {

 reducedMIMO-LayersFR1-DL-r16 INTEGER (1..8),

 reducedMIMO-LayersFR1-UL-r16 INTEGER (1..4)

 } OPTIONAL,

 reducedMaxMIMO-LayersFR2-r16 SEQUENCE {

 reducedMIMO-LayersFR2-DL-r16 INTEGER (1..8),

 reducedMIMO-LayersFR2-UL-r16 INTEGER (1..4)

 } OPTIONAL

}

MaxMIMO-LayerPreferenceFR2-2-r17 ::= SEQUENCE {

 reducedMaxMIMO-LayersFR2-2-r17 SEQUENCE {

 reducedMIMO-LayersFR2-2-DL-r17 INTEGER (1..8),

 reducedMIMO-LayersFR2-2-UL-r17 INTEGER (1..4)

 } OPTIONAL

}

MinSchedulingOffsetPreference-r16 ::= SEQUENCE {

 preferredK0-r16 SEQUENCE {

 preferredK0-SCS-15kHz-r16 ENUMERATED {sl1, sl2, sl4, sl6} OPTIONAL,

 preferredK0-SCS-30kHz-r16 ENUMERATED {sl1, sl2, sl4, sl6} OPTIONAL,

 preferredK0-SCS-60kHz-r16 ENUMERATED {sl2, sl4, sl8, sl12} OPTIONAL,

 preferredK0-SCS-120kHz-r16 ENUMERATED {sl2, sl4, sl8, sl12} OPTIONAL

 } OPTIONAL,

 preferredK2-r16 SEQUENCE {

 preferredK2-SCS-15kHz-r16 ENUMERATED {sl1, sl2, sl4, sl6} OPTIONAL,

 preferredK2-SCS-30kHz-r16 ENUMERATED {sl1, sl2, sl4, sl6} OPTIONAL,

 preferredK2-SCS-60kHz-r16 ENUMERATED {sl2, sl4, sl8, sl12} OPTIONAL,

 preferredK2-SCS-120kHz-r16 ENUMERATED {sl2, sl4, sl8, sl12} OPTIONAL

 } OPTIONAL

}

MinSchedulingOffsetPreferenceExt-r17 ::= SEQUENCE {

 preferredK0-r17 SEQUENCE {

 preferredK0-SCS-480kHz-r17 ENUMERATED {sl8, sl16, sl32, sl48} OPTIONAL,

 preferredK0-SCS-960kHz-r17 ENUMERATED {sl8, sl16, sl32, sl48} OPTIONAL

 } OPTIONAL,

 preferredK2-r17 SEQUENCE {

 preferredK2-SCS-480kHz-r17 ENUMERATED {sl8, sl16, sl32, sl48} OPTIONAL,

 preferredK2-SCS-960kHz-r17 ENUMERATED {sl8, sl16, sl32, sl48} OPTIONAL

 } OPTIONAL

}

MUSIM-Assistance-r17 ::= SEQUENCE {

 musim-PreferredRRC-State-r17 ENUMERATED {idle, inactive, outOfConnected} OPTIONAL,

 musim-GapPreferenceList-r17 MUSIM-GapPreferenceList-r17 OPTIONAL

}

MUSIM-GapPreferenceList-r17 ::= SEQUENCE (SIZE (1..4)) OF MUSIM-GapInfo-r17

MUSIM-Assistance-v1800 ::= SEQUENCE {

 musim-GapPriorityPreferenceList-r18 MUSIM-GapPriorityPreferenceList-r18 OPTIONAL,

 musim-GapKeepPreference-r18 ENUMERATED {true} OPTIONAL,

 musim-CapRestriction-r18 MUSIM-CapRestriction-r18 OPTIONAL,

 musim-NeedForGapsInfoNR-r18 NeedForGapsInfoNR-r16 OPTIONAL,

 ...

}

MUSIM-GapPriorityPreferenceList-r18 ::= SEQUENCE (SIZE (1..3)) OF GapPriority-r17

MUSIM-CapRestriction-r18 ::= SEQUENCE {

 musim-Cell-SCG-ToRelease-r18 MUSIM-Cell-SCG-ToRelease-r18 OPTIONAL,

 musim-CellToAffectList-r18 MUSIM-CellToAffectList-r18 OPTIONAL,

 musim-AffectedBandsList-r18 MUSIM-AffectedBandsList-r18 OPTIONAL,

 musim-AvoidedBandsList-r18 MUSIM-AvoidedBandsList-r18 OPTIONAL,

 musim-MaxCC-r18 MUSIM-MaxCC-r18 OPTIONAL

}

MUSIM-Cell-SCG-ToRelease-r18 ::= SEQUENCE {

 musim-CellToRelease-r18 MUSIM-CellToRelease-r18 OPTIONAL,

 scg-ReleasePreference-r18 ENUMERATED {true} OPTIONAL

}

MUSIM-CellToRelease-r18 ::= SEQUENCE (SIZE (1..maxNrofServingCells)) OF ServCellIndex

MUSIM-CellToAffectList-r18::= SEQUENCE (SIZE (1..maxNrofServingCells)) OF MUSIM-CellToAffect-r18

MUSIM-CellToAffect-r18 ::= SEQUENCE {

 musim-ServCellIndex-r18 ServCellIndex,

 musim-MIMO-Layers-DL-r18 INTEGER (1..8) OPTIONAL,

 musim-MIMO-Layers-UL-r18 INTEGER (1..4) OPTIONAL,

 musim-SupportedBandwidth-DL-r18 SupportedBandwidth-v1700 OPTIONAL,

 musim-SupportedBandwidth-UL-r18 SupportedBandwidth-v1700 OPTIONAL

}

MUSIM-AffectedBandsList-r18 ::= SEQUENCE (SIZE (1..maxBandComb-MUSIM-r18)) OF MUSIM-AffectedBands-r18

MUSIM-AffectedBands-r18 ::= SEQUENCE (SIZE (1..maxCandidateBandIndex-r18)) OF MUSIM-CapabilityRestrictedBandParameters-r18

MUSIM-CapabilityRestrictedBandParameters-r18 ::= SEQUENCE {

 musim-bandEntryIndex-r18 MUSIM-BandEntryIndex-r18,

 musim-CapabilityRestricted-r18 SEQUENCE {

 musim-MIMO-Layers-DL-r18 INTEGER (1..8) OPTIONAL,

 musim-MIMO-Layers-UL-r18 INTEGER (1..4) OPTIONAL,

 musim-SupportedBandwidth-DL-r18 SupportedBandwidth-v1700 OPTIONAL,

 musim-SupportedBandwidth-UL-r18 SupportedBandwidth-v1700 OPTIONAL

 }

}

MUSIM-AvoidedBandsList-r18 ::= SEQUENCE (SIZE (1..maxBandComb-MUSIM-r18)) OF MUSIM-AvoidedBands-r18

MUSIM-AvoidedBands-r18 ::= SEQUENCE (SIZE (1..maxCandidateBandIndex-r18)) OF MUSIM-BandEntryIndex-r18

MUSIM-BandEntryIndex-r18 ::= INTEGER(1.. maxCandidateBandIndex-r18)

MUSIM-MaxCC-r18 ::= SEQUENCE {

 musim-MaxCC-TotalDL-r18 INTEGER (1..32) OPTIONAL,

 musim-MaxCC-TotalUL-r18 INTEGER (1..32) OPTIONAL,

 musim-MaxCC-FR1-DL-r18 INTEGER (1..32) OPTIONAL,

 musim-MaxCC-FR1-UL-r18 INTEGER (1..32) OPTIONAL,

 musim-MaxCC-FR2-1-DL-r18 INTEGER (1..32) OPTIONAL,

 musim-MaxCC-FR2-1-UL-r18 INTEGER (1..32) OPTIONAL,

 musim-MaxCC-FR2-2-DL-r18 INTEGER (1..32) OPTIONAL,

 musim-MaxCC-FR2-2-UL-r18 INTEGER (1..32) OPTIONAL

}

ReleasePreference-r16 ::= SEQUENCE {

 preferredRRC-State-r16 ENUMERATED {idle, inactive, connected, outOfConnected}

}

ReducedMaxBW-FRx-r16 ::= SEQUENCE {

 reducedBW-DL-r16 ReducedAggregatedBandwidth,

 reducedBW-UL-r16 ReducedAggregatedBandwidth

}

ReducedMaxCCs-r16 ::= SEQUENCE {

 reducedCCsDL-r16 INTEGER (0..31),

 reducedCCsUL-r16 INTEGER (0..31)

}

SL-UE-AssistanceInformationNR-r16 ::= SEQUENCE (SIZE (1..maxNrofTrafficPattern-r16)) OF SL-TrafficPatternInfo-r16

SL-TrafficPatternInfo-r16::= SEQUENCE {

 trafficPeriodicity-r16 ENUMERATED {ms20, ms50, ms100, ms200, ms300, ms400, ms500, ms600, ms700, ms800, ms900, ms1000},

 timingOffset-r16 INTEGER (0..10239),

 messageSize-r16 BIT STRING (SIZE (8)),

 sl-QoS-FlowIdentity-r16 SL-QoS-FlowIdentity-r16

}

UL-GapFR2-Preference-r17::= SEQUENCE {

 ul-GapFR2-PatternPreference-r17 INTEGER (0..3) OPTIONAL

}

PropagationDelayDifference-r17 ::= SEQUENCE (SIZE (1..4)) OF INTEGER (-270..270)

IDC-FDM-Assistance-r18 ::= SEQUENCE {

 affectedCarrierFreqRangeList-r18 AffectedCarrierFreqRangeList-r18 OPTIONAL,

 affectedCarrierFreqRangeCombList-r18 AffectedCarrierFreqRangeCombList-r18 OPTIONAL,

 ...

}

IDC-TDM-Assistance-r18 ::= SEQUENCE {

 cycleLength-r18 ENUMERATED {ms2, ms3, ms4, ms5, ms6, ms7, ms8, ms10, ms14, ms16, ms20, ms30,

 ms32, ms35, ms40, ms60, ms64, ms70, ms80, ms96, ms100, ms128, ms160,

 ms256, ms320, ms512, ms640, ms1024, ms1280, ms2048, ms2560, ms5120, ms10240},

 startOffset-r18 INTEGER (0..10239),

 slotOffset-r18 INTEGER (0..31),

 activeDuration-r18 CHOICE {

 subMilliSeconds-r18 INTEGER (1..31),

 milliSeconds-r18 ENUMERATED {

 ms1, ms2, ms3, ms4, ms5, ms6, ms8, ms10, ms20, ms30, ms40, ms50, ms60,

 ms80, ms100, ms200, ms300, ms400, ms500, ms600, ms800, ms1000, ms1200,

 ms1600, spare8, spare7, spare6, spare5, spare4, spare3, spare2, spare1 }

 },

 ...

}

AffectedCarrierFreqRangeList-r18 ::= SEQUENCE (SIZE (1..maxFreqIDC-r16)) OF AffectedCarrierFreqRange-r18

AffectedCarrierFreqRange-r18 ::= SEQUENCE {

 affectedFreqRange-r18 AffectedFreqRange-r18,interferenceDirection-r18 ENUMERATED {nr, other, both, spare},

 victimSystemType-r18 VictimSystemType-r16 OPTIONAL

}

AffectedCarrierFreqRangeCombList-r18 ::= SEQUENCE (SIZE (1..maxCombIDC-r16)) OF AffectedCarrierFreqRangeComb-r18

AffectedCarrierFreqRangeComb-r18 ::= SEQUENCE {

 affectedCarrierFreqRangeComb-r18 SEQUENCE (SIZE (2..maxNrofServingCells)) OF AffectedFreqRange-r18,

 interferenceDirection-r18 ENUMERATED {nr, other, both, spare},

 victimSystemType-r18 VictimSystemType-r16 OPTIONAL

}

AffectedFreqRange-r18 ::= SEQUENCE {

 centerFreq-r18 ARFCN-ValueNR,

 affectedBandwidth-r18 ENUMERATED {khz200, khz400, khz600, khz800, mhz1, mhz2, mhz3, mhz4, mhz5, mhz6,

 mhz8, mhz10, mhz20, mhz30, mhz40, mhz50, mhz60, mhz80, mhz100, mhz200,

 mhz300, mhz400, spare10, spare9, spare8, spare7, spare6, spare5, spare4,

 spare3, spare2, spare1}

}

UL-TrafficInfo-r18 ::= SEQUENCE (SIZE (1..maxNrofPDU-Sessions-r17)) OF PDU-SessionUL-TrafficInfo-r18

PDU-SessionUL-TrafficInfo-r18 ::= SEQUENCE {

 pdu-SessionID-r18 PDU-SessionID,

 qos-FlowUL-TrafficInfoList-r18 SEQUENCE (SIZE (1..maxNrofQFIs)) OF QOS-FlowUL-TrafficInfo-r18

}

QOS-FlowUL-TrafficInfo-r18 ::= SEQUENCE {

 qfi-r18 QFI,

 jitterRange-r18 SEQUENCE {

 lowerBound-r18 JitterBound-r18,

 upperBound-r18 JitterBound-r18

 } OPTIONAL,

 burstArrivalTime-r18 CHOICE {

 referenceTime ReferenceTime-r16,

 referenceSFN-AndSlot ReferenceSFN-AndSlot-r18

 } OPTIONAL,

 trafficPeriodicity-r18 INTEGER (1..640000) OPTIONAL,

 pdu-SetIdentification-r18 BOOLEAN OPTIONAL,

 psi-Identification-r18 BOOLEAN OPTIONAL,

 ...

}

ReferenceSFN-AndSlot-r18 ::= SEQUENCE {

 referenceSFN-r18 INTEGER (0..1023),

 referenceSlot-r18 INTEGER (0..639)

}

JitterBound-r18 ::= ENUMERATED {ms0, ms0dot5, ms1, ms1dot5, ms2, ms2dot5, ms3, ms3dot5, ms4, ms4dot5, ms5, ms5dot5, ms6, ms6dot5, ms7, beyondMs7}

SL-PRS-UE-AssistanceInformationNR-r18 ::= SEQUENCE (SIZE (1..maxNrofSL-PRS-TxConfig-r18)) OF SL-PRS-TxInfo-r18

SL-PRS-TxInfo-r18 ::= SEQUENCE {

 sl-PRS-Periodicity-r18 ENUMERATED {ms100, ms200, ms300, ms400, ms500, ms600, ms700, ms800, ms900, ms1000, spare6,

 spare5, spare4, spare3, spare2, spare1},

 sl-PRS-Priority-r18 INTEGER (1..8) OPTIONAL,

 sl-PRS-DelayBudget-r18 INTEGER (0..1023) OPTIONAL,

 sl-PRS-Bandwidth-r18 ENUMERATED {mhz5, mhz10, mhz15, mhz20, mhz25, mhz30, mhz35, mhz40,

 mhz45, mhz50, mhz60, mhz70, mhz80, mhz90, mhz100, mhz200, mhz400,

 spare15, spare14, spare13, spare12, spare11, spare10, spare9, spare8,

 spare7, spare6, spare5, spare4, spare3, spare2, spare1} OPTIONAL,

 ...

}

DataCollectionPreference-r19 ::= SEQUENCE {

 dataCollectionStartStop-r19 ENUMERATED {start, stop} OPTIONAL,

 dataCollectionPreferredConfigurationList-r19 DataCollectionPreferredConfigurationList-r19 OPTIONAL,

 ...

}

LoggedDataCollectionAssistance-r19 ::= SEQUENCE {

 lowPowerState-r19 ENUMERATED {true} OPTIONAL,

 bufferStatus-r19 ENUMERATED {full, aboveThreshold} OPTIONAL,

 ...

}

-- Solution 1:

DataCollectionPreferredConfigurationList-r19 :: = SEQUENCE (SIZE (1..maxPreferredConfig-r19)) OF DataCollectionCandidateConfigId-r19

-- Solution 2/3:

DataCollectionPreferredConfigurationList-r19 :: = SEQUENCE (SIZE (1..maxPreferredConfig-r19)) OF CSI-ReportConfigId

-- TAG-UEASSISTANCEINFORMATION-STOP

-- ASN1STOP

|  |
| --- |
| *UEAssistanceInformation* field descriptions |
| ***activeDuration***Indicates the UE's preferred active duration to resolve the IDC problem. Value in multiples of 1/32 ms (subMilliSeconds) or in ms (milliSecond). For the latter, value ms1 corresponds to 1 ms, value ms2 corresponds to 2 ms, and so on. |
| ***affectedBandwidth***Indicates the bandwidth around the center frequency of the carrier frequency range which is affected by the IDC problem. Value mhz5 corresponds to 5 MHz, value mhz10 corresponds to 10 MHz and so on. If *candidateBandwidth* is not configured, the UE is allowed to report the frequency range for any bandwidth as indicated by *affectedBandwidth*, within the frequency band limitation as defined in TS 38.101-1 [15], TS 38.101-2 [39], TS 38.101-3 [34] and TS 38.101-5 [75]. |
| ***affectedCarrierFreqList***Indicates a list of NR carrier frequencies that are affected by IDC problem. |
| ***affectedCarrierFreqRangeList***Indicates a list of NR carrier frequency ranges that are affected by IDC problem. |
| ***affectedCarrierFreqCombList***Indicates a list of NR carrier frequency combinations that are affected by IDC problems due to Inter-Modulation Distortion and harmonics from NR when configured with UL CA or NR-DC. |
| ***affectedCarrierFreqRangeCombList***Indicates a list of NR carrier frequency range combinations that are affected by IDC problems due to Inter-Modulation Distortion and harmonics from NR when configured with UL CA or NR-DC |
| ***bfd-MeasRelaxationState***Indicates the relaxation state of BFD measurements. Each bit corresponds to a serving cell of the cell group. A serving cell is mapped to the (*servCellIndex*+1)-th bit, starting from MSB. A bit that is set to 1 indicates that the UE is performing BFD measurements relaxation on the serving cell mapped on the bit. A bit that is set to 0 indicates that the UE is not performing BFD measurements relaxation on the serving cell mapped on the bit. If a serving cell is not configured to the UE, the corresponding bit is set to 0. |
| ***centerFreq***Indicates the center frequency of the carrier frequency range which is affected by the IDC problem. |
| ***cycleLength***Indicates the UE's preferred cycle length to resolve the IDC problem. Value in ms. Value *ms2* corresponds to 2 ms, value *ms3* corresponds to 3 ms, and so on. |
| ***dataCollectionStartStop***If it is set to 'start', it indicates the UE's preference to be configured with radio resources for UE data collection. If it is set to 'stop', it indicates the UE's preference to not be configured any longer with radio resources for UE data collection. |
| ***dataCollectionPreferredConfiguration***Indicates the UE's preferred radio resource configuration(s) for UE data collection. |
| ***delayBudgetReport***Indicates the UE-preferred adjustment to connected mode DRX. |
| ***interferenceDirection***Indicates the direction of IDC interference. Value *nr* indicates that only NR is victim of IDC interference, value *other* indicates that only another radio is victim of IDC interference and value *both* indicates that both NR and another radio are victims of IDC interference. The other radio refers to either the ISM radio or GNSS (see TR 36.816 [44]). |
| ***loggedDataCollectionAssistance***Indicates assistance information related to the logging of measurements for network data collection performed in accordance with *CSI-LoggedMeasurementConfig.* |
| ***lowPowerState***It is set to 'true' if the UE determines to be in low power state.Editor's Note: FFS the need to clarify when/how this is signalled, e.g. when/how it is signalled that the power is not any longer low. |
| ***bufferStatus***Indicates the status of the buffer reserved for the logging of L1 radio measurements.Editor's Note: FFS the encoding of the data availability indication and the cause value (full buffer, threshold). |

<Text Omitted>

## 6.3 RRC information elements

<Text Omitted>

### 6.3.4 Other information elements

<Text Omitted>

#### – *OtherConfig*

The IE *OtherConfig* contains configuration related to miscellaneous other configurations.

*OtherConfig* information element

-- ASN1START

-- TAG-OTHERCONFIG-START

OtherConfig ::= SEQUENCE {

 delayBudgetReportingConfig CHOICE{

 release NULL,

 setup SEQUENCE{

 delayBudgetReportingProhibitTimer ENUMERATED {s0, s0dot4, s0dot8, s1dot6, s3, s6, s12, s30}

 }

 } OPTIONAL -- Need M

}

OtherConfig-v1540 ::= SEQUENCE {

 overheatingAssistanceConfig SetupRelease {OverheatingAssistanceConfig} OPTIONAL, -- Need M

 ...

}

OtherConfig-v1610 ::= SEQUENCE {

 idc-AssistanceConfig-r16 SetupRelease {IDC-AssistanceConfig-r16} OPTIONAL, -- Need M

 drx-PreferenceConfig-r16 SetupRelease {DRX-PreferenceConfig-r16} OPTIONAL, -- Need M

 maxBW-PreferenceConfig-r16 SetupRelease {MaxBW-PreferenceConfig-r16} OPTIONAL, -- Need M

 maxCC-PreferenceConfig-r16 SetupRelease {MaxCC-PreferenceConfig-r16} OPTIONAL, -- Need M

 maxMIMO-LayerPreferenceConfig-r16 SetupRelease {MaxMIMO-LayerPreferenceConfig-r16} OPTIONAL, -- Need M

 minSchedulingOffsetPreferenceConfig-r16 SetupRelease {MinSchedulingOffsetPreferenceConfig-r16} OPTIONAL, -- Need M

 releasePreferenceConfig-r16 SetupRelease {ReleasePreferenceConfig-r16} OPTIONAL, -- Need M

 referenceTimePreferenceReporting-r16 ENUMERATED {true} OPTIONAL, -- Need R

 btNameList-r16 SetupRelease {BT-NameList-r16} OPTIONAL, -- Need M

 wlanNameList-r16 SetupRelease {WLAN-NameList-r16} OPTIONAL, -- Need M

 sensorNameList-r16 SetupRelease {Sensor-NameList-r16} OPTIONAL, -- Need M

 obtainCommonLocation-r16 ENUMERATED {true} OPTIONAL, -- Need R

 sl-AssistanceConfigNR-r16 ENUMERATED{true} OPTIONAL -- Need R

}

OtherConfig-v1700 ::= SEQUENCE {

 ul-GapFR2-PreferenceConfig-r17 ENUMERATED {true} OPTIONAL, -- Need R

 musim-GapAssistanceConfig-r17 SetupRelease {MUSIM-GapAssistanceConfig-r17} OPTIONAL, -- Need M

 musim-LeaveAssistanceConfig-r17 SetupRelease {MUSIM-LeaveAssistanceConfig-r17} OPTIONAL, -- Need M

 successHO-Config-r17 SetupRelease {SuccessHO-Config-r17} OPTIONAL, -- Need M

 maxBW-PreferenceConfigFR2-2-r17 ENUMERATED {true} OPTIONAL, -- Cond maxBW

 maxMIMO-LayerPreferenceConfigFR2-2-r17 ENUMERATED {true} OPTIONAL, -- Cond maxMIMO

 minSchedulingOffsetPreferenceConfigExt-r17 ENUMERATED {true} OPTIONAL, -- Cond minOffset

 rlm-RelaxationReportingConfig-r17 SetupRelease {RLM-RelaxationReportingConfig-r17} OPTIONAL, -- Need M

 bfd-RelaxationReportingConfig-r17 SetupRelease {BFD-RelaxationReportingConfig-r17} OPTIONAL, -- Need M

 scg-DeactivationPreferenceConfig-r17 SetupRelease {SCG-DeactivationPreferenceConfig-r17} OPTIONAL, -- Cond SCG

 rrm-MeasRelaxationReportingConfig-r17 SetupRelease {RRM-MeasRelaxationReportingConfig-r17} OPTIONAL, -- Need M

 propDelayDiffReportConfig-r17 SetupRelease {PropDelayDiffReportConfig-r17} OPTIONAL -- Need M

}

OtherConfig-v1800 ::= SEQUENCE {

 idc-AssistanceConfig-v1800 SetupRelease {IDC-AssistanceConfig-v1800} OPTIONAL, -- Need M

 multiRx-PreferenceReportingConfigFR2-r18 SetupRelease {MultiRx-PreferenceReportingConfigFR2-r18} OPTIONAL, -- Need M

 aerial-FlightPathAvailabilityConfig-r18 ENUMERATED {true} OPTIONAL, -- Need R

 ul-TrafficInfoReportingConfig-r18 SetupRelease {UL-TrafficInfoReportingConfig-r18} OPTIONAL, -- Need M

 n3c-RelayUE-InfoReportConfig-r18 ENUMERATED {true} OPTIONAL, -- Need R

 successPSCell-Config-r18 SetupRelease {SuccessPSCell-Config-r18} OPTIONAL, -- Need M

 sn-InitiatedPSCellChange-r18 ENUMERATED {true} OPTIONAL, -- Need R

 musim-GapPriorityAssistanceConfig-r18 ENUMERATED {true} OPTIONAL, -- Cond musimGapConfig

 musim-CapabilityRestrictionConfig-r18 SetupRelease {MUSIM-CapabilityRestrictionConfig-r18} OPTIONAL -- Need M

}

OtherConfig-v1830 ::= SEQUENCE {

 sl-PRS-AssistanceConfigNR-r18 ENUMERATED{true} OPTIONAL -- Need R

}

OtherConfig-v19xy ::= SEQUENCE {

 applicabilityReportConfig-r19 SetupRelease {ApplicabilityReportConfig-r19} OPTIONAL, -- Need M

 dataCollectionPreferenceConfig-r19 SetupRelease {DataCollectionPreferenceConfig-r19} OPTIONAL, -- Need M

 loggedDataCollectionAssistanceConfig-r19 SetupRelease {LoggedDataCollectionAssistanceConfig-r19} OPTIONAL -- Need M

}

IDC-AssistanceConfig-v1800 ::= SEQUENCE {

 idc-FDM-AssistanceConfig-r18 SetupRelease {IDC-FDM-AssistanceConfig-r18} OPTIONAL, -- Need M

 idc-TDM-AssistanceConfig-r18 ENUMERATED {setup} OPTIONAL -- Cond FDM

}

MultiRx-PreferenceReportingConfigFR2-r18 ::= SEQUENCE {

 multiRx-PreferenceReportingConfigFR2ProhibitTimer-r18 ENUMERATED {

 s0, s0dot5, s1, s2, s3, s4, s5, s6, s7,

 s8, s9, s10, s20, s30, spare2, spare1}

}

CandidateServingFreqListNR-r16 ::= SEQUENCE (SIZE (1..maxFreqIDC-r16)) OF ARFCN-ValueNR

MUSIM-GapAssistanceConfig-r17 ::= SEQUENCE {

 musim-GapProhibitTimer-r17 ENUMERATED {s0, s0dot1, s0dot2, s0dot3, s0dot4, s0dot5, s1, s2, s3, s4, s5, s6, s7, s8, s9, s10}

}

MUSIM-LeaveAssistanceConfig-r17 ::= SEQUENCE {

 musim-LeaveWithoutResponseTimer-r17 ENUMERATED {ms10, ms20, ms40, ms60, ms80, ms100, spare2, spare1}

}

MUSIM-CapabilityRestrictionConfig-r18 ::= SEQUENCE {

 musim-CandidateBandList-r18 MUSIM-CandidateBandList-r18 OPTIONAL, -- Need R

 musim-WaitTimer-r18 ENUMERATED {ms10, ms20, ms40, ms60, ms80, ms100, spare2, spare1},

 musim-ProhibitTimer-r18 ENUMERATED {s0, s0dot1, s0dot2, s0dot3, s0dot4, s0dot5, s1, s2, s3, s4, s5, s6, s7, s8,

 s9, s10}

}

MUSIM-CandidateBandList-r18::= SEQUENCE (SIZE (1..maxCandidateBandIndex-r18)) OF FreqBandIndicatorNR

SuccessHO-Config-r17 ::= SEQUENCE {

 thresholdPercentageT304-r17 ENUMERATED {p40, p60, p80, spare5, spare4, spare3, spare2, spare1} OPTIONAL, --Need R

 thresholdPercentageT310-r17 ENUMERATED {p40, p60, p80, spare5, spare4, spare3, spare2, spare1} OPTIONAL, --Need R

 thresholdPercentageT312-r17 ENUMERATED {p20, p40, p60, p80, spare4, spare3, spare2, spare1} OPTIONAL, --Need R

 sourceDAPS-FailureReporting-r17 ENUMERATED {true} OPTIONAL, --Need R

 ...

}

SuccessPSCell-Config-r18 ::= SEQUENCE {

 thresholdPercentageT304-SCG-r18 ENUMERATED {p40, p60, p80, spare5, spare4, spare3, spare2, spare1} OPTIONAL, --Need R

 thresholdPercentageT310-SCG-r18 ENUMERATED {p40, p60, p80, spare5, spare4, spare3, spare2, spare1} OPTIONAL, --Need R

 thresholdPercentageT312-SCG-r18 ENUMERATED {p20, p40, p60, p80, spare4, spare3, spare2, spare1} OPTIONAL, --Need R

 ...

}

OverheatingAssistanceConfig ::= SEQUENCE {

 overheatingIndicationProhibitTimer ENUMERATED {s0, s0dot5, s1, s2, s5, s10, s20, s30,

 s60, s90, s120, s300, s600, spare3, spare2, spare1}

}

IDC-AssistanceConfig-r16 ::= SEQUENCE {

 candidateServingFreqListNR-r16 CandidateServingFreqListNR-r16 OPTIONAL, -- Need R

 ...

}

DRX-PreferenceConfig-r16 ::= SEQUENCE {

 drx-PreferenceProhibitTimer-r16 ENUMERATED {

 s0, s0dot5, s1, s2, s3, s4, s5, s6, s7,

 s8, s9, s10, s20, s30, spare2, spare1}

}

MaxBW-PreferenceConfig-r16 ::= SEQUENCE {

 maxBW-PreferenceProhibitTimer-r16 ENUMERATED {

 s0, s0dot5, s1, s2, s3, s4, s5, s6, s7,

 s8, s9, s10, s20, s30, spare2, spare1}

}

MaxCC-PreferenceConfig-r16 ::= SEQUENCE {

 maxCC-PreferenceProhibitTimer-r16 ENUMERATED {

 s0, s0dot5, s1, s2, s3, s4, s5, s6, s7,

 s8, s9, s10, s20, s30, spare2, spare1}

}

MaxMIMO-LayerPreferenceConfig-r16 ::= SEQUENCE {

 maxMIMO-LayerPreferenceProhibitTimer-r16 ENUMERATED {

 s0, s0dot5, s1, s2, s3, s4, s5, s6, s7,

 s8, s9, s10, s20, s30, spare2, spare1}

}

MinSchedulingOffsetPreferenceConfig-r16 ::= SEQUENCE {

 minSchedulingOffsetPreferenceProhibitTimer-r16 ENUMERATED {

 s0, s0dot5, s1, s2, s3, s4, s5, s6, s7,

 s8, s9, s10, s20, s30, spare2, spare1}

}

ReleasePreferenceConfig-r16 ::= SEQUENCE {

 releasePreferenceProhibitTimer-r16 ENUMERATED {

 s0, s0dot5, s1, s2, s3, s4, s5, s6, s7,

 s8, s9, s10, s20, s30, infinity, spare1},

 connectedReporting ENUMERATED {true} OPTIONAL -- Need R

}

RLM-RelaxationReportingConfig-r17 ::= SEQUENCE {

 rlm-RelaxtionReportingProhibitTimer ENUMERATED {s0, s0dot5, s1, s2, s5, s10, s20, s30,

 s60, s90, s120, s300, s600, infinity, spare2, spare1}

}

BFD-RelaxationReportingConfig-r17 ::= SEQUENCE {

 bfd-RelaxtionReportingProhibitTimer ENUMERATED {s0, s0dot5, s1, s2, s5, s10, s20, s30,

 s60, s90, s120, s300, s600, infinity, spare2, spare1}

}

SCG-DeactivationPreferenceConfig-r17 ::= SEQUENCE {

 scg-DeactivationPreferenceProhibitTimer-r17 ENUMERATED {

 s0, s1, s2, s4, s8, s10, s15, s30,

 s60, s120, s180, s240, s300, s600, s900, s1800}

}

RRM-MeasRelaxationReportingConfig-r17 ::= SEQUENCE {

 s-SearchDeltaP-Stationary-r17 ENUMERATED {dB2, dB3, dB6, dB9, dB12, dB15, spare2, spare1},

 t-SearchDeltaP-Stationary-r17 ENUMERATED {s5, s10, s20, s30, s60, s120, s180, s240, s300, spare7, spare6, spare5,

 spare4, spare3, spare2, spare1}

}

PropDelayDiffReportConfig-r17 ::= SEQUENCE {

 threshPropDelayDiff-r17 ENUMERATED {ms0dot5, ms1, ms2, ms3, ms4, ms5, ms6 ,ms7, ms8, ms9, ms10, spare5,

 spare4, spare3, spare2, spare1} OPTIONAL, -- Need M

 neighCellInfoList-r17 SEQUENCE (SIZE (1..maxCellNTN-r17)) OF NeighbourCellInfo-r17 OPTIONAL -- Need M

}

NeighbourCellInfo-r17 ::= SEQUENCE {

epochTime-r17 EpochTime-r17,

ephemerisInfo-r17 EphemerisInfo-r17

}

IDC-FDM-AssistanceConfig-r18 ::= SEQUENCE {

 candidateServingFreqRangeListNR-r18 CandidateServingFreqRangeListNR-r18 OPTIONAL, -- Need R

 ...

}

CandidateServingFreqRangeListNR-r18 ::= SEQUENCE (SIZE (1..maxFreqIDC-r16)) OF CandidateServingFreqRangeNR-r18

CandidateServingFreqRangeNR-r18 ::= SEQUENCE {

 candidateCenterFreq-r18 ARFCN-ValueNR,

 candidateBandwidth-r18 ENUMERATED {khz200, khz400, khz600, khz800, mhz1, mhz2, mhz3, mhz4, mhz5,

 mhz6, mhz8, mhz10, mhz20, mhz30, mhz40, mhz50, mhz60, mhz80, mhz100,

 mhz200, mhz300, mhz400} OPTIONAL -- Need R

}

UL-TrafficInfoReportingConfig-r18 ::= SEQUENCE {

 pdu-SessionsToReportUL-TrafficInfoList-r18 SEQUENCE (SIZE (1.. maxNrofPDU-Sessions-r17)) OF PDU-SessionToReportUL-TrafficInfo-r18,

 ul-TrafficInfoProhibitTimer-r18 ENUMERATED {s0, s0dot5, s1, s2, s5, s10, s20, s30,

 s60, s90, s120, s300, s600, spare3, spare2, spare1}

}

PDU-SessionToReportUL-TrafficInfo-r18 ::= SEQUENCE {

 pdu-SessionID-r18 PDU-SessionID,

 qfi-ToReportUL-TrafficInfoList-r18 SEQUENCE (SIZE (1..maxNrofQFIs)) OF QFI

}

ApplicabilityReportConfig-r19 ::= SEQUENCE {

 FFS

}

DataCollectionPreferenceConfig-r19 :: = SEQUENCE {

 -- Solution 1

 dataCollectionCandidateConfigList-r19 SEQUENCE (SIZE (1..maxCandidateConfig-r19)) OF DataCollectionCandidateConfig-r19 OPTIONAL, -- Need N

 -- Solution 2

 dataCollectionCandidateConfigList-r19 SEQUENCE (SIZE (1.. maxCandidateConfig-r19)) OF CSI-ReportConfigId OPTIONAL, -- Need R

 -- Solution 3

 dataCollectionCandidateConfigToAddModList SEQUENCE (SIZE (1..maxCandidateConfig -r19)) OF CSI-ReportConfig OPTIONAL, -- Need N

}

LoggedDataCollectionAssistanceConfig-r19 ::= SEQUENCE {

 loggedDataCollectionBufferThreshold-r19 ENUMERATED {FFS} OPTIONAL, -- Need R

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

 loggedDataCollectionPowerLow-r19 ENUMERATED {true} OPTIONAL -- Need R

}

 -- Solution 1

DataCollectionCandidateConfig-r19 ::= SEQUENCE {

 dataCollectionCandidateConfigId-r19 DataCollectionCandidateConfigId-r19 OPTIONAL, -- Need R

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

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

 associatedId1-r19 AssociatedId-r19 OPTIONAL, -- Need R

 associatedId2-r19 AssociatedId-r19 OPTIONAL -- Need R

}

-- TAG-OTHERCONFIG-STOP

-- ASN1STOP

Editor's Note: FFS how to handle *applicabilityReportConfig*, *LoggedDataCollectionAssistanceConfig* and *dataCollectionPreferenceConfig* during RRCReestablishment and in transition to/from INACTIVE.

| *OtherConfig* field descriptions |
| --- |
| ***aerial-FlightPathAvailabilityConfig***Configuration for the UE to indicate the availability of flight path information for Aerial UE operation. |
| ***applicabilityReportConfig***Configuration for the UE to indicate the applicability of configurations subject to the applicability determination procedure.Editor's Note: FFS the content (if any) of the UAI configuration to enable the UE to report applicability. |
| ***bfd-RelaxationReportingConfig***Configuration for the UE to report the relaxation state of BFD measurements. |
| ***btNameList***Configuration for the UE to report measurements from specific Bluetooth beacons. NG-RAN configures the field if *includeBT-Meas* is configured for one or more measurements. |
| ***candidateBandwidth***Indicates the bandwidth of the candidate frequency range around the center frequency. |
| ***candidateCenterFreq***Indicates the center frequency of the candidate frequency range. |
| ***candidateServingFreqListNR***Indicates for each candidate NR serving cells, the center frequency around which UE is requested to report IDC issues. |
| ***candidateServingFreqRangeListNR***Indicates the candidate frequency range with the combination of the center frequency and the candidate bandwidth, around which the UE is requested to report IDC issues. |
| ***connectedReporting***Indicates that the UE can report a preference to remain in RRC\_CONNECTED state following a report to leave RRC\_CONNECTED state. If absent, the UE cannot report a preference to stay in RRC\_CONNECTED state. |
| ***dataCollectionCandidateConfig (Solution 1/2)/dataCollectionCandidateConfigToAddModList (Solution 3)***A list of candidate configurations , out of which the UEcan indicate its preference to be configured with radio resources for UE data collection. |
| ***dataCollectionPreferenceConfig***Configuration for the UE to report its preference to be configured with radio resources for UE data collection. |
| ***delayBudgetReportingProhibitTimer***Prohibit timer for delay budget reporting. Value in seconds. Value *s0* means prohibit timer is set to 0 seconds, value *s0dot4* means prohibit timer is set to 0.4 seconds, and so on. |
| ***drx-PreferenceConfig***Configuration for the UE to report assistance information to inform the gNB about the UE's DRX preferences for power saving. |
| ***drx-PreferenceProhibitTimer***Prohibit timer for DRX preferences assistance information reporting. Value in seconds. Value *s0* means prohibit timer is set to 0 seconds, value *s0dot5* means prohibit timer is set to 0.5 seconds, value *s1* means prohibit timer is set to 1 second and so on. |
| ***idc-AssistanceConfig***Configuration for the UE to report assistance information to inform the gNB about UE detected IDC problem. |
| ***loggedDataCollectionAssistanceConfig***Configuration for the UE to report assistance information related to logging of L1 radio measurements.Editor's Note: FFS the content of the UAI configuration to enable the UE to transmit the UAI for NW-side data collection (e.g. low power state, buffer full, availability of data, etc.) |
| ***loggedDataCollectionBufferThreshold***Buffer threshold for the UE to report availability of logged L1 radio measurements data.Editor's Note: FFS the buffer threshold type and values, e.g. value in bits/bytes, percentage of total buffer size. |
| ***loggedDataCollectionFullBuffer***Configuration for the UE to report availability of logged L1 radio measurements data upon reaching the buffer size.Editor's Note: FFS the need to explicitly configure the full buffer indication, or whether it is sufficient to include *loggedDataCollectionAssistanceConfig*. |
| ***loggedDataCollectionPowerLow***Configuration for the UE to report when it enters a low power state.Editor's Note: FFS the need to explicitly configure the low power indication, or whether it is sufficient to include *loggedDataCollectionAssistanceConfig*. |

NEXT CHANGE

## 6.4 RRC multiplicity and type constraint values

### – Multiplicity and type constraint definitions

-- ASN1START

-- TAG-MULTIPLICITY-AND-TYPE-CONSTRAINT-DEFINITIONS-START

<Text Omitted>

maxLogCSI-MeasReport-r19 INTEGER ::= FFS -- Maximum number of entries for logged measurements for network data collection

maxNrofApplicabilityReports-r19 INTEGER ::= FFS -- Maximum number of applicability reports

maxNrofAssociatedIDs-r19 INTEGER ::= FFS -- Maximum number of associated IDs

maxNrofAssociatedIDs-1-r19 INTEGER ::= FFS-1 -- Maximum number of associated IDs minus one

maxNrofLoggedMeasurementConfigurations-r19 INTEGER ::= FFS -- Maximum number of logged measurement configurations

maxNrofLoggedMeasurementConfigurations-1-r19 INTEGER ::= FFS-1 -- Maximum number of logged measurement configurations minus one

maxCandidateConfig-r19 INTEGER ::= FFS -- Maximum number of candidate UE data collection configurations maxPreferredConfig-r19 INTEGER ::= FFS -- Maximum number of preferred UE data collection configurations

-- TAG-MULTIPLICITY-AND-TYPE-CONSTRAINT-DEFINITIONS-STOP

-- ASN1STOP

NEXT CHANGE