**3GPP TSG-RAN WG2 #131bis *R2-25xxxxx***

**Prague, Czech Republic, 13th – 17th October 2025**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
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|  | **38.331** | **CR** | **<CR#>** | **rev** | **-** | **Current version:** | **19.0.0** |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

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|  |
| ***Title:***  | Introducing SR resources in LTM cell switch MAC CE [LTM\_enh\_SR] |
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| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | TEI19 |  | ***Date:*** | 2025-10-03 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-19 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
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| ***Reason for change:*** | Using a configured grant seems the best solution for LTM, as the UE would be free to transmit the RRCReconfigurationComplete message without the need to ask for a grant from the network. However, since the times when CHO was specified, reserving (grant) resources for a long time is a big burden for the network, as such resources are scarse. Since it is not feasible to have a configured grant in each configured LTM candidate cell, the consequence of this is that network most likely will rely heavily of the dynamic grant for the case of LTM. Otherwise, if only configured grant is used this means that only a few LTM candidate cells can be configured at the UE, which translates in lower performance and reliability to handle mobility scenarios.Because of this, the proposal would be to provide a shorter SR periodicity as possible to the UE so to not delay the sending of the RRCReconfigurationComplete message, in case the dynamic grant is used.  |
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| ***Summary of change:*** | Section 5.3.5.3- Clarified that UE shall release the scheduling resources configured for LTM once the LTM cell switch procedure is successfully completedSection 6.3.2- Added new fields to configure SR resources to be used during an LTM cell switch |
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| ***Consequences if not approved:*** | If CR is not approved, in case dynamic grant is used for the LTM cell switch, the UE may delay the sending of the SR (because the SR periodicity can be quite large) and this will in turn increase the latency of the LTM cell switch procedure and the interruption of the user plane data |
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| ***Clauses affected:*** | 5.3.5.3, 6.3.2 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** | **X** |  |  Other core specifications  | TS 38.321 CR XXX |
| ***affected:*** |  | **X** |  Test specifications | TS 38.306 CR XXX  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications |   |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

*START OF CHANGES*

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

The UE shall perform the following actions upon reception of the *RRCReconfiguration,* upon execution of the conditional reconfiguration (CHO, CPA, CPC, or subsequent CPAC), or upon execution of an LTM cell switch:

1> if the *RRCReconfiguration* is applied due to a conditional reconfiguration execution upon cell selection performed while timer T311 was running, as defined in 5.3.7.3:

2> remove all the entries in the *condReconfigList* within the MCG and the SCG *VarConditionalReconfig* except for the entries in which *subsequentCondReconfig* is present, if any;

1> if the *RRCReconfiguration* includes the *daps-SourceRelease*:

2> reset the source MAC and release the source MAC configuration;

2> for each DAPS bearer:

3> release the RLC entity or entities as specified in TS 38.322 [4], clause 5.1.3, and the associated logical channel for the source SpCell;

3> reconfigure the PDCP entity to release DAPS as specified in TS 38.323 [5];

2> for each SRB:

3> release the PDCP entity for the source SpCell;

3> release the RLC entity as specified in TS 38.322 [4], clause 5.1.3, and the associated logical channel for the source SpCell;

2> release the physical channel configuration for the source SpCell;

2> discard the keys used in the source SpCell (the KgNB key, the KRRCenc key, the KRRCint key, the KUPint key and the KUPenc key), if any;

1> if the *RRCReconfiguration* is received while the timer T348 is running:

2> if the configuration does not exceed UE temporary capability restriction indicated via *musim-CapRestriction* included in the last transmission of *UEAssistanceInformation*:

3> stop the timer T348;

1> if the *RRCReconfiguration* is received via other RAT (i.e., inter-RAT handover to NR):

2> if the *RRCReconfiguration* does not include the *fullConfig* and the UE is connected to 5GC (i.e., delta signalling during intra 5GC handover):

3> re-use the source RAT SDAP and PDCP configurations if available (i.e., current SDAP/PDCP configurations for all RBs from source E-UTRA RAT prior to the reception of the inter-RAT HO *RRCReconfiguration* message);

1> else:

2> if the RRCReconfiguration includes the fullConfig:

3> perform the full configuration procedure as specified in 5.3.5.11;

1> if the *RRCReconfiguration* includes the *masterCellGroup*:

2> perform the cell group configuration for the received *masterCellGroup* according to 5.3.5.5;

1> if the *RRCReconfiguration* includes the *masterKeyUpdate*:

2> perform AS security key update procedure as specified in 5.3.5.7;

1> if the *RRCReconfiguration* includes the *sk-Counter*:

2> if this *RRCReconfiguration* message is applied due to an LTM cell switch execution procedure which requires an update of the master security key, according to clause 5.3.5.18.6:

3> if the *LTM-Candidate* IE indicated by lower layers does not include an *mrdc-SecondaryCellGroupConfig* set to *release*:

4> perform security key update procedure as specified in 5.3.5.7;

2> else if this *RRCReconfiguration* message is not applied due to an LTM cell switch execution procedure:

3> perform security key update procedure as specified in 5.3.5.7;

1> if the *RRCReconfiguration* includes the *secondaryCellGroup*:

2> perform the cell group configuration for the SCG according to 5.3.5.5;

1> if the *RRCReconfiguration* includes the *mrdc-SecondaryCellGroupConfig:*

2> if the *mrdc-SecondaryCellGroupConfig* is set to *setup*:

3> if the *mrdc-SecondaryCellGroupConfig* includes *mrdc-ReleaseAndAdd*:

4> perform MR-DC release as specified in clause 5.3.5.10;

3> if the received *mrdc-SecondaryCellGroup* is set to *nr-SCG*:

4> perform the RRC reconfiguration according to 5.3.5.3 for the *RRCReconfiguration* message included in *nr-SCG*;

3> if the received *mrdc-SecondaryCellGroup* is set to *eutra-SCG*:

4> perform the RRC connection reconfiguration as specified in TS 36.331 [10], clause 5.3.5.3 for the *RRCConnectionReconfiguration* message included in *eutra-SCG*;

2> else (*mrdc-SecondaryCellGroupConfig* is set to *release*):

3> perform MR-DC release as specified in clause 5.3.5.10;

NOTE 00: If the UE receives, within an LTM candidate configuration, an *mrdc-SecondaryCellGroupConfig* set to *release* even if no SCG is currently configured at the UE, the UE does not consider this as an invalid configuration.

1> if the *RRCReconfiguration* message includes the *radioBearerConfig*:

2> perform the radio bearer configuration according to 5.3.5.6;

1> if the *RRCReconfiguration* message includes the *radioBearerConfig2*:

2> perform the radio bearer configuration according to 5.3.5.6;

1> if the *RRCReconfiguration* message includes the *measConfig*:

2> perform the measurement configuration procedure as specified in 5.5.2;

1> if the *RRCReconfiguration* message includes the *dedicatedNAS-MessageList*:

2> forward each element of the *dedicatedNAS-MessageList* to upper layers in the same order as listed;

1> if the *RRCReconfiguration* message includes the *dedicatedSIB1-Delivery*:

2> perform the action upon reception of *SIB1* as specified in 5.2.2.4.2;

NOTE 0: If this *RRCReconfiguration* is associated to the MCG and includes *reconfigurationWithSync* in *spCellConfig* and *dedicatedSIB1-Delivery*, the UE initiates (if needed) the request to acquire required SIBs, according to clause 5.2.2.3.5, only after the random access procedure or the LTM cell switch execution towards the target SpCell is completed.

1> if the *RRCReconfiguration* message includes the *dedicatedSystemInformationDelivery*:

2> perform the action upon reception of System Information as specified in 5.2.2.4;

2> if all the SIB(s) and/or posSIB(s) requested in *DedicatedSIBRequest* message have been acquired:

3> stop timer T350, if running;

1> if the *RRCReconfiguration* message includes the *dedicatedPosSysInfoDelivery*:

2> perform the action upon reception of the contained posSIB(s), as specified in clause 5.2.2.4.16;

2> if all the SIB(s) and/or posSIB(s) requested in *DedicatedSIBRequest* message have been acquired:

3> stop timer T350, if running;

1> if the *RRCReconfiguration* message includes the *otherConfig*:

2> perform the other configuration procedure as specified in 5.3.5.9;

1> if the *RRCReconfiguration* message includes the *bap-Config*:

2> perform the BAP configuration procedure as specified in 5.3.5.12;

1> if the *RRCReconfiguration* message includes the *iab-IP-AddressConfigurationList*:

2> if *iab-IP-AddressToReleaseList* is included:

3> perform release of IP address as specified in 5.3.5.12a.1.1;

2> if *iab-IP-AddressToAddModList* is included:

3> perform IAB IP address addition/update as specified in 5.3.5.12a.1.2;

1> if the *RRCReconfiguration* message includes the *conditionalReconfiguration*:

2> perform conditional reconfiguration as specified in 5.3.5.13;

1> if the *RRCReconfiguration* message includes the *needForGapsConfigNR*:

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

3> consider itself to be configured to provide the measurement gap requirement information of NR target bands;

2> else:

3> consider itself not to be configured to provide the measurement gap requirement information of NR target bands;

1> if the *RRCReconfiguration* message includes the *needForGapNCSG-ConfigNR*:

2> if *needForGapNCSG-ConfigNR* is set to *setup*:

3> consider itself to be configured to provide the measurement gap and NCSG requirement information of NR target bands;

2> else:

3> consider itself not to be configured to provide the measurement gap and NCSG requirement information of NR target bands;

1> if the *RRCReconfiguration* message includes the *needForGapNCSG-ConfigEUTRA*:

2> if *needForGapNCSG-ConfigEUTRA* is set to *setup*:

3> consider itself to be configured to provide the measurement gap and NCSG requirement information of E‑UTRA target bands;

2> else:

3> consider itself not to be configured to provide the measurement gap and NCSG requirement information of E‑UTRA target bands;

1> if the *RRCReconfiguration* message includes the *onDemandSIB-Request*:

2> if *onDemandSIB-Request* is set to *setup*:

3> consider itself to be configured to request SIB(s) or posSIB(s) in RRC\_CONNECTED in accordance with clause 5.2.2.3.5;

2> else:

3> consider itself not to be configured to request SIB(s) or posSIB(s) in RRC\_CONNECTED in accordance with clause 5.2.2.3.5;

3> stop timer T350, if running;

1> if the *RRCReconfiguration* message includes the *sl-ConfigDedicatedNR*:

2> perform the sidelink dedicated configuration procedure as specified in 5.3.5.14;

NOTE 0a: If the *sl-ConfigDedicatedNR* was received embedded within an E-UTRA *RRCConnectionReconfiguration* message, the UE does not build an NR *RRCReconfigurationComplete* message for the received *sl-ConfigDedicatedNR*.

1> if the *RRCReconfiguration* message includes the *sl-L2RelayUE-Config*:

2> perform the L2 U2N or U2U Relay UE configuration procedure as specified in 5.3.5.15;

1> if the *RRCReconfiguration* message includes the *sl-L2RemoteUE-Config*:

2> perform the L2 U2N or U2U Remote UE configuration procedure as specified in 5.3.5.16;

1> if the *RRCReconfiguration* message includes the *dedicatedPagingDelivery*:

2> perform the *Paging* message reception procedure as specified in 5.3.2.3;

1> if the *RRCReconfiguration* message includes the *sl-ConfigDedicatedEUTRA-Info*:

2> perform related procedures for V2X sidelink communication in accordance with TS 36.331 [10], clause 5.3.10 and clause 5.5.2;

1> if the *RRCReconfiguration* message includes the *ul-GapFR2-Config*:

2> perform the FR2 UL gap configuration procedure as specified in 5.3.5.13c;

1> if the *RRCReconfiguration* message includes the *musim-GapConfig*:

2> perform the MUSIM gap configuration procedure as specified in 5.3.5.9a;

1> if the *RRCReconfiguration* message includes the *appLayerMeasConfig*:

2> for each application layer measurement configuration with *appLayerIdleInactiveConfig* configured:

3> if the RPLMN is not included in *plmn-IdentityList* in *VarAppLayerPLMN-ListConfig*:

4> forward the *measConfigAppLayerId* and inform upper layers about the release of the application layer measurement configuration;

4> release the application layer measurement configuration including its fields in the UE variables *VarAppLayerIdleConfig* and *VarAppLayerPLMN-ListConfig*;

4> discard any application layer measurement reports which were not yet fully submitted to lower layers for transmission;

4> consider itself not to be configured to send application layer measurement report for the *measConfigAppLayerId*;

2> if *idleInactiveReportAllowed* is included in the *RRCReconfiguration* message:

3> if the UE is configured with at least one application layer measurement configuration with *appLayerIdleInactiveConfig* configured:

4> initiate the procedure in 5.7.16.2 after the *RRCReconfigurationComplete* has been transmitted;

2> else:

3> for each application layer measurement configuration with *appLayerIdleInactiveConfig* configured:

4> forward the *measConfigAppLayerId* and inform upper layers about the release of the application layer measurement configuration;

4> release the application layer measurement configuration including its fields in the UE variables *VarAppLayerIdleConfig* and *VarAppLayerPLMN-ListConfig*;

4> discard any application layer measurement reports which were not yet fully submitted to lower layers for transmission;

4> consider itself not to be configured to send application layer measurement reports for the *measConfigAppLayerId*;

2> perform the application layer measurement configuration procedure as specified in 5.3.5.13d;

1> if the *RRCReconfiguration* message includes the *ue-TxTEG-RequestUL-TDOA-Config*:

2> if *ue-TxTEG-RequestUL-TDOA-Config* is set to *setup*:

3> perform the UE positioning assistance information procedure as specified in 5.7.14;

2> else:

3> release the configuration of UE positioning assistance information;

1> if the *RRCReconfiguration* message includes the *aerial-Config*:

2> (re)configure the aerial parameters in accordance with the included *aerial-Config*;

1> if the *RRCReconfiguration* message includes the *sl-IndirectPathAddChange*:

2> perform the SL indirect path specific configuration procedure as specified in 5.3.5.17.2.2;

1> if the *RRCReconfiguration* message includes the *n3c-IndirectPathAddChange* or *n3c-ExtIndirectPathAddChange*:

2> perform configuration procedure for the remote UE part of N3C indirect path as specified in 5.3.5.17.3.2;

1> if the *RRCReconfiguration* message includes the *n3c-IndirectPathConfigRelay*:

2> perform the configuration procedure for the relay UE part of N3C indirect path as specified in 5.3.5.17.3.3;

1> if the *RRCReconfiguration* message includes the *ltm-Config*:

2> if the *ltm-Config* is set to *setup*:

3> perform the LTM configuration procedure as specified in 5.3.5.18.1;

2> else:

3> perform the LTM configuration release procedure as specified in clause 5.3.5.18.7;

1> if the *RRCReconfiguration* message includes the *ltm-ConfigNRDC*:

2> if the *ltm-ConfigNRDC* is set to *setup*:

3> if *ltm-ConfigNRDC* includes *ltm-ConfigurationSCG*:

4> perform the LTM configuration procedure as specified in clause 5.3.5.18.1;

3> if *ltm-ConfigNRDC* includes *ltm-SK-CounterConfigToReleaseList*:

4> perform the LTM sk-Counter configuration release as specified in clause 5.3.5.18.z;

3> if *ltm-ConfigNRDC* includes *ltm-SK-CounterConfigToAddModList*:

4> perform the LTM sk-Counter configuration addition/modification as specified in clause 5.3.5.18.y;

2> else:

3> perform the LTM configuration release procedure as specified in clause 5.3.5.18.7;

1> if the *RRCReconfiguration* message includes the *srs-PosResourceSetAggBW-CombinationList*:

2> if *srs-PosResourceSetAggBW-CombinationList* is set to *setup*:

3> perform the SRS for positioning transmission using bandwidth aggregation provided in configuration *SRS-PosResourceSetLinkedForAggBW* as specified in TS 38.211 [16];

2> else:

3> release all the configuration of *SRS-PosResourceSetLinkedForAggBW*;

1> set the content of the *RRCReconfigurationComplete* message as follows:

2> if the *RRCReconfiguration* includes the *masterCellGroup* containing the *reportUplinkTxDirectCurrent*:

3> include the *uplinkTxDirectCurrentList* for each MCG serving cell with UL;

3> include *uplinkDirectCurrentBWP-SUL* for each MCG serving cell configured with SUL carrier, if any, within the *uplinkTxDirectCurrentList*;

2> if the *RRCReconfiguration* includes the *masterCellGroup* containing the *reportUplinkTxDirectCurrentTwoCarrier*:

3> include in the *uplinkTxDirectCurrentTwoCarrierList* the list of uplink Tx DC locations for the configured intra-band uplink carrier aggregation in the MCG;

2> if the *RRCReconfiguration* includes the *masterCellGroup* containing the *reportUplinkTxDirectCurrentMoreCarrier*:

3> include in the *uplinkTxDirectCurrentMoreCarrierList* the list of uplink Tx DC locations for the configured intra-band uplink carrier aggregation in the MCG;

2> if the *RRCReconfiguration* includes the *secondaryCellGroup* containing the *reportUplinkTxDirectCurrent*:

3> include the *uplinkTxDirectCurrentList* for each SCG serving cell with UL;

3> include *uplinkDirectCurrentBWP-SUL* for each SCG serving cell configured with SUL carrier, if any, within the *uplinkTxDirectCurrentList*;

2> if the *RRCReconfiguration* includes the *secondaryCellGroup* containing the *reportUplinkTxDirectCurrentTwoCarrier*:

3> include in the *uplinkTxDirectCurrentTwoCarrierList* the list of uplink Tx DC locations for the configured intra-band uplink carrier aggregation in the SCG;

2> if the *RRCReconfiguration* includes the *secondaryCellGroup* containing the *reportUplinkTxDirectCurrentMoreCarrier*:

3> include in the *uplinkTxDirectCurrentMoreCarrierList* the list of uplink Tx DC locations for the configured intra-band uplink carrier aggregation in the SCG;

NOTE 0b: The UE does not expect that the *reportUplinkTxDirectCurrentTwoCarrier* or *reportUplinkTxDirectCurrentMoreCarrier* is received in both *masterCellGroup* and in *secondaryCellGroup*. Network only configures at most one of *reportUplinkTxDirectCurrent, reportUplinkTxDirectCurrentTwoCarrier* or *reportUplinkTxDirectCurrentMoreCarrier* in one RRC message*.*

2> if the *RRCReconfiguration* message includes the *mrdc-SecondaryCellGroupConfig* with *mrdc-SecondaryCellGroup* set to *eutra-SCG*:

3> include in the *eutra-SCG-Response* the E-UTRA *RRCConnectionReconfigurationComplete* message in accordance with TS 36.331 [10] clause 5.3.5.3;

2> if the *RRCReconfiguration* message includes the *mrdc-SecondaryCellGroupConfig* with *mrdc-SecondaryCellGroup* set to *nr-SCG*:

3> include in the *nr-SCG-Response* the SCG *RRCReconfigurationComplete* message;

3> if the *RRCReconfiguration* message is applied due to conditional reconfiguration execution and the *RRCReconfiguration* message does not include the *reconfigurationWithSync* in the *masterCellGroup*:

4> include in the *selectedCondRRCReconfig* the *condReconfigId* for the selected cell of conditional reconfiguration execution;

4> if a new *sk-Counter* value has been selected due to the conditional reconfiguration execution for subsequent CPAC:

5> include *selectedSK-Counter* and set its value to the selected *sk-Counter* value;

3> if the *RRCReconfiguration* message is applied due to conditional reconfiguration execution and *condExecutionCondPSCell* is configured for the selected PSCell:

4> include in the *selectedPSCellForCHO-WithSCG* and set it to the information of the selected PSCell;

2> if the *RRCReconfiguration* includes the *reconfigurationWithSync* in *spCellConfig* of an MCG:

3> if the UE has logged measurements available for NR and if the RPLMN is included in *plmn-IdentityList* stored in *VarLogMeasReport*; or

3> if the UE has logged measurements available for NR and if the current registered SNPN identity is included in *snpn-ConfigID-List* stored in the *VarLogMeasReport*:

4> include the *logMeasAvailable* in the *RRCReconfigurationComplete* message;

4> if Bluetooth measurement results are included in the logged measurements the UE has available for NR:

5> include the *logMeasAvailableBT* in the *RRCReconfigurationComplete* message;

4> if WLAN measurement results are included in the logged measurements the UE has available for NR:

5> include the *logMeasAvailableWLAN* in the *RRCReconfigurationComplete* message;

3> if the *sigLoggedMeasType* in *VarLogMeasReport* is included; or

3> if the UE supports the override protection of the signalling based logged MDT for inter-RAT (i.e. LTE to NR), and if the *sigLoggedMeasType* in *VarLogMeasReport* of TS 36.331 [10] is included:

4> if T330 timer is running (associated to the logged measurement configuration for NR or for LTE):

5> set *sigLogMeasConfigAvailable* to *true* in the *RRCReconfigurationComplete* message;

4> else:

5> if the UE has logged measurements in *VarLogMeasReport* or in *VarLogMeasReport* of TS 36.331 [10]:

6> set *sigLogMeasConfigAvailable* to *false* in the *RRCReconfigurationComplete* message;

3> if the UE has connection establishment failure or connection resume failure information available in *VarConnEstFailReport* or *VarConnEstFailReportList* and if the RPLMN is equal to *plmn-Identity* stored in *VarConnEstFailReport* orin at least one of the entries of *VarConnEstFailReportList*; or

3> if the UE has connection establishment failure information or connection resume failure information available in *VarConnEstFailReport* or *VarConnEstFailReportList* and if the registered SNPN identity is equal to *snpn-Identity* in *networkIdentity* stored in *VarConnEstFailReport* or any entry of *VarConnEstFailReportList*:

4> include *connEstFailInfoAvailable* in the *RRCReconfigurationComplete* message;

3> if the UE has radio link failure or handover failure information available in *VarRLF-Report* and if the RPLMN is included in *plmn-IdentityList* stored in *VarRLF-Report*; or

3> if the UE has radio link failure or handover failure information available in *VarRLF-Report* of TS 36.331 [10] and if the UE is capable of cross-RAT RLF reporting and if the RPLMN is included in *plmn-IdentityList* stored in *VarRLF-Report* of TS 36.331 [10]; or

3> if the UE has radio link failure or handover failure information available in *VarRLF-Report* and if the current registered SNPN identity is included in *snpn-IdentityList* stored in *VarRLF-Report*:

4> include *rlf-InfoAvailable* in the *RRCReconfigurationComplete* message;

3> if the UE was configured with *successHO-Config* when connected to the source PCell:

4> if the applied *RRCReconfiguration* is not due to a conditional reconfiguration execution upon cell selection performed while timer T311 was running, as defined in 5.3.7.3, and the applied *RRCReconfiguration* is not due to an LTM cell switch execution upon cell selection performed while timer T311 was running, as defined in 5.3.7.3; or

4> if the applied *RRCReconfiguration* is not received when T316 was running:

5> perform the actions for the successful handover report determination as specified in clause 5.7.10.6, upon successfully completing the Random Access procedure triggered for the *reconfigurationWithSync* in *spCellConfig* of the MCG, or upon an indication from lower layer that the LTM cell switch execution has been successfully completed;

4> if applied *RRCReconfiguration* is received when T316 was running:

5> release *successHO-Config* configured by the source PCell and *thresholdPercentageT304* if configured by the target PCell;

3> if the UE has successful handover information available in *VarSuccessHO-Report* and if the RPLMN is included in *plmn-IdentityList* stored in *VarSuccessHO-Report*; or

3> if the UE has successful handover information available in *VarSuccessHO-Report* and if the current registered SNPN identity is included in *snpn-IdentityList* stored in the *VarSuccessHO-Report*:

4> include *successHO-InfoAvailable* in the *RRCReconfigurationComplete* message;

3> release *successPSCell-Config* configured by the source PCell, if available;

3> if the UE has successful PSCell change or addition information available in *VarSuccessPSCell-Report* and if the RPLMN is included in *plmn-IdentityList* stored in *VarSuccessPSCell-Report*; or

3> if the UE has successful PSCell change or addition information available in *VarSuccessPSCell-Report* and if the current registered SNPN identity is included in *snpn-IdentityList* stored in the *VarSuccessPSCell-Report*:

4> include *successPSCell-InfoAvailable* in the *RRCReconfigurationComplete* message;

3> if the *RRCReconfiguration* includes *retainLoggedMeasurements*:

4> if the UE has logged measurement entries available in *VarCSI-LogMeasReport*:

5> include *csi-LogMeasAvailable* in the *RRCReconfigurationComplete* message;

3> else:

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

2> if the *RRCReconfiguration* message was received via SRB1, but not within *mrdc-SecondaryCellGroup* or E-UTRA *RRCConnectionReconfiguration* or E-UTRA *RRCConnectionResume*:

3> if the UE is configured to provide the measurement gap requirement information of NR target bands:

4> if the *RRCReconfiguration* message includes the *needForGapsConfigNR*; or

4> if the *NeedForGapsInfoNR* information is changed compared to last time the UE reported this information; or

4> if the *RRCReconfiguration* message includes the *needForInterruptionConfigNR* and set it to *enabled*; or

4> if the *needForInterruptionConfigNR* is enabled and the *NeedForInterruptionInfoNR* information is changed compared to last time the UE reported this information:

5> include the *NeedForGapsInfoNR* and set the contents as follows:

6> include *intraFreq-needForGap* and set the gap requirement information of intra-frequency measurement for each NR serving cell;

6> if *requestedTargetBandFilterNR* is configured:

7> for each supported NR band that is also included in *requestedTargetBandFilterNR*, include an entry in *interFreq-needForGap* and set the gap requirement information for that band;

6> else:

7> include an entry in *interFreq-needForGap* and set the corresponding gap requirement information for each supported NR band;

5> if the *needForInterruptionConfigNR* is enabled:

6> include the *needForInterruptionInfoNR* and set the contents as follows:

7> include *intraFreq-needForInterruption* with the same number of entries, and listed in the same order, as in *intraFreq-needForGap*;

7> for each entry in *intraFreq-needForInterruption*:

8> include *interruptionIndication* and set the interruption requirement information if the corresponding entry in *intraFreq-needForGap* is set to *no-gap;*

7> include *interFreq-needForInterruption* with the same number of entries, and listed in the same order, as in *interFreq-needForGap*;

7> for each entry in *interFreq-needForInterruption*:

8> include *interruptionIndication* and set the interruption requirement information if the corresponding entry in *interFreq-needForGap* is set to *no-gap*;

3> if the UE is configured to provide the measurement gap and NCSG requirement information of NR target bands:

4> if the *RRCReconfiguration* message includes the *needForGapNCSG-ConfigNR*; or

4> if the *needForGapNCSG-InfoNR* information is changed compared to last time the UE reported this information:

5> include the *NeedForGapNCSG-InfoNR* and set the contents as follows:

6> include *intraFreq-needForNCSG* and set the gap and NCSG requirement information of intra-frequency measurement for each NR serving cell;

6> if *requestedTargetBandFilterNCSG-NR* is configured:

7> for each supported NR band included in *requestedTargetBandFilterNCSG-NR*, include an entry in *interFreq-needForNCSG* and set the NCSG requirement information for that band;

6> else:

7> include an entry for each supported NR band in *interFreq-needForNCSG* and set the corresponding NCSG requirement information;

3> if the UE is configured to provide the measurement gap and NCSG requirement information of E‑UTRA target bands:

4> if the *RRCReconfiguration* message includes the *needForGapNCSG-ConfigEUTRA*; or

4> if the *needForGapNCSG-InfoEUTRA* information is changed compared to last time the UE reported this information:

5> include the *NeedForGapNCSG-InfoEUTRA* and set the contents as follows:

6> if *requestedTargetBandFilterNCSG-EUTRA* is configured, for each supported E-UTRA band included in *requestedTargetBandFilterNCSG-EUTRA*, include an entry in *needForNCSG-EUTRA* and set the NCSG requirement information for that band; otherwise, include an entry for each supported E-UTRA band in *needForNCSG-EUTRA* and set the corresponding NCSG requirement information;

3> if the UE supports successful handover report for MCG LTM cell switch and if the UE has successful handover information available in *VarSuccessHO-Report* and if the RPLMN is included in *plmn-IdentityList* stored in *VarSuccessHO-Report*; or

3> if the UE supports successful handover report for MCG LTM cell switch and if the UE has successful handover information available in *VarSuccessHO-Report* and if the current registered SNPN identity is included in *snpn-IdentityList* stored in the *VarSuccessHO-Report*:

4> include *successHO-InfoAvailable* in the *RRCReconfigurationComplete* message;

2> if the UE has (updated) flight path information available:

3> if the UE had not provided a flight path information since last entering RRC\_CONNECTED state; or

3> if at least one waypoint or a timestamp corresponding to a waypoint location that was not previously provided since last entering RRC\_CONNECTED state is available; or

3> if at least one upcoming waypoint or a timestamp corresponding to a waypoint location that was previously provided since last entering RRC\_CONNECTED state is to be removed; or

3> if *flightPathUpdateDistanceThr* is configured and, for at least one waypoint, the 3D distance between the previously provided location and the new location is more than the distance threshold configured by *flightPathUpdateDistanceThr*; or

3> if *flightPathUpdateTimeThr* is configured and, for at least one waypoint, the time difference between the previously provided timestamp and the new timestamp, if available, is more than the time threshold configured by *flightPathUpdateTimeThr*:

4> include *flightPathInfoAvailable*;

NOTE 0c: If neither *flightPathUpdateDistanceThr* nor *flightPathUpdateTimeThr* is configured, it is up to UE implementation whether to include *flightPathInfoAvailable* when updated flight path information is available.

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

3> include *measConfigReportAppLayerAvailable*;

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

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

3> if this *RRCReconfiguration* message was received via SRB1 but not within the *nr-SCG* within *mrdc-SecondaryCellGroup*:

4> if a new *sk-Counter* value has been selected due to the LTM cell switch execution procedure as specified in 5.3.5.18.6:

5> include *selectedSK-Counter* and set its value to the selected *sk-Counter* value;

2> if the UE is configured in this *RRCReconfiguration* message to provide location information for assisted SMTC configuration in RRC\_CONNECTED state:

3> include *referenceLocationReport*;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1> if the UE is configured with E-UTRA *nr-SecondaryCellGroupConfig* (UE in (NG)EN-DC):

2> if the *RRCReconfiguration* message was received via E-UTRA SRB1 as specified in TS 36.331 [10]; or

2> if the *RRCReconfiguration* message was received via E-UTRA RRC message *RRCConnectionReconfiguration* within *MobilityFromNRCommand* (handover from NR standalone to (NG)EN-DC);

3> if the *RRCReconfiguration* is applied due to a conditional reconfiguration execution for CPC which is configured via *conditionalReconfiguration* contained in *nr-SecondaryCellGroupConfig* specified in TS 36.331 [10]:

4> submit the *RRCReconfigurationComplete* message via the E-UTRA MCG embedded in E-UTRA RRC message *ULInformationTransferMRDC* as specified in TS 36.331 [10], clause 5.6.2a.

3> else if the *RRCReconfiguration* message was included in E-UTRA *RRCConnectionResume* message:

4> submit the *RRCReconfigurationComplete* message via E-UTRA embedded in E-UTRA RRC message *RRCConnectionResumeComplete* as specified in TS 36.331 [10], clause 5.3.3.4a;

3> else:

4> submit the *RRCReconfigurationComplete* via E-UTRA embedded in E-UTRA RRC message *RRCConnectionReconfigurationComplete* as specified in TS 36.331 [10], clause 5.3.5.3/5.3.5.4/5.4.2.3;

3> if the *scg-State* is not included in the E-UTRA message (*RRCConnectionReconfiguration* or *RRCConnectionResume*) containing the *RRCReconfiguration* message:

4> perform SCG activation as specified in 5.3.5.13a;

4> if *reconfigurationWithSync* was included in *spCellConfig* of an SCG:

5> initiate the Random Access procedure on the PSCell, as specified in TS 38.321 [3];

4> else if the SCG was deactivated before the reception of the E-UTRA RRC message containing the *RRCReconfiguration* message:

5> if *bfd-and-RLM* was not configured to *true* before the reception of the E-UTRA *RRCConnectionReconfiguration* or *RRCConnectionResume* message containing the *RRCReconfiguration* message or if lower layers indicate that a Random Access procedure is needed for SCG activation:

6> initiate the Random Access procedure on the SpCell, as specified in TS 38.321 [3];

5> else the procedure ends;

4> else the procedure ends;

3> else:

4> perform SCG deactivation as specified in 5.3.5.13b;

4> the procedure ends;

2> if the *RRCReconfiguration* message was received within *nr-SecondaryCellGroupConfig* in *RRCConnectionReconfiguration* message received via SRB3 within *DLInformationTransferMRDC*:

3> submit the *RRCReconfigurationComplete* via E-UTRA embedded in E-UTRA RRC message *RRCConnectionReconfigurationComplete* as specified in TS 36.331 [10], clause 5.3.5.3/5.3.5.4;

3> if the *scg-State* is not included in the *RRCConnectionReconfiguration*:

4> if *reconfigurationWithSync* was included in *spCellConfig* of an SCG:

5> initiate the Random Access procedure on the SpCell, as specified in TS 38.321 [3];

4> else the procedure ends;

3> else:

4> perform SCG deactivation as specified in 5.3.5.13b;

4> the procedure ends;

NOTE 1: The order the UE sends the *RRCConnectionReconfigurationComplete* message and performs the Random Access procedure towards the SCG is left to UE implementation.

2> else (*RRCReconfiguration* was received via SRB3) but not within *DLInformationTransferMRDC*:

3> submit the *RRCReconfigurationComplete* message via SRB3 to lower layers for transmission using the new configuration;

NOTE 2: In (NG)EN-DC and NR-DC, in the case *RRCReconfiguration* is received via SRB1 or within *DLInformationTransferMRDC* via SRB3, the random access is triggered by RRC layer itself as there is not necessarily other UL transmission. In the case *RRCReconfiguration* is received via SRB3 but not within *DLInformationTransferMRDC*, the random access is triggered by the MAC layer due to arrival of *RRCReconfigurationComplete*.

1> else if the *RRCReconfiguration* message was received via SRB1 within the *nr-SCG* within *mrdc-SecondaryCellGroup* (UE in NR-DC, *mrdc-SecondaryCellGroup* was received in *RRCReconfiguration* or *RRCResume* via SRB1):

2> if the *RRCReconfiguration* is applied due to a conditional reconfiguration execution for CPC or subsequent CPAC which is configured via *conditionalReconfiguration* contained in *nr-SCG* within *mrdc-SecondaryCellGroup*; or

2> if the *RRCReconfiguration* is applied due to an LTM cell switch execution and is configured via an *LTM-Config* IE contained in *nr-SCG* within *mrdc-SecondaryCellGroup*:

3> submit the *RRCReconfigurationComplete* message via *SRB1* embedded in NR RRC message *ULInformationTransferMRDC* as specified in clause 5.7.2a.3.

2> if the *scg-State* is not included in the *RRCReconfiguration* or *RRCResume* message containing the *RRCReconfiguration* message:

3> perform SCG activation as specified in 5.3.5.13a;

3> if *reconfigurationWithSync* was included in *spCellConfig* in nr-SCG:

4> if the *RRCReconfiguration* message is not applied due to an LTM cell switch execution for which lower layer indicate to skip the Random Access procedure:

5> initiate the Random Access procedure on the PSCell, as specified in TS 38.321 [3];

4> if the UE was configured with *successPSCell-Config* when connected to the source PSCell (for PSCell change) or to the PCell (for PSCell addition or change):

5> perform the actions for the successful PSCell change or addition report determination as specified in clause 5.7.10.7, upon successfully completing the Random Access procedure triggered for the *reconfigurationWithSync* in *spCellConfig* of the SCG;

3> else if the SCG was deactivated before the reception of the NR RRC message containing the *RRCReconfiguration* message:

4> if *bfd-and-RLM* was not configured to *true* before the reception of the *RRCReconfiguration* or *RRCResume* message containing the *RRCReconfiguration* message; or

4> if lower layers indicate that a Random Access procedure is needed for SCG activation:

5> initiate the Random Access procedure on the PSCell, as specified in TS 38.321 [3];

4> else the procedure ends;

3> else the procedure ends;

2> else

3> perform SCG deactivation as specified in 5.3.5.13b;

3> the procedure ends;

NOTE 2a: The order in which the UE sends the *RRCReconfigurationComplete* message and performs the Random Access procedure towards the SCG is left to UE implementation.

1> else if the *RRCReconfiguration* message was received via SRB3 (UE in NR-DC):

2> if the *RRCReconfiguration* message was received within *DLInformationTransferMRDC*:

3> if the *RRCReconfiguration* message was received within the *nr-SCG* within *mrdc-SecondaryCellGroup* (NR SCG RRC Reconfiguration):

4> if the *scg-State* is not included in the *RRCReconfiguration* message containing the *RRCReconfiguration* message:

5> if *reconfigurationWithSync* was included in spCellConfig in nr-SCG:

6> initiate the Random Access procedure on the PSCell, as specified in TS 38.321 [3];

6> if the UE was configured with *successPSCell-Config* when connected to the source PSCell (for PSCell change) or to the PCell (for PSCell addition or change):

7> perform the actions for the successful PSCell change report determination as specified in clause 5.7.10.7, upon successfully completing the Random Access procedure triggered for the *reconfigurationWithSync* in *spCellConfig* of the SCG;

5> else:

6> the procedure ends;

4> else:

5> perform SCG deactivation as specified in 5.3.5.13b;

5> the procedure ends;

3> else:

4> if the *RRCReconfiguration* does not include the *mrdc-SecondaryCellGroupConfig*:

5> if the *RRCReconfiguration* includes the *scg-State*:

6> perform SCG deactivation as specified in 5.3.5.13b;

4> submit the *RRCReconfigurationComplete* message via SRB1 to lower layers for transmission using the new configuration;

2> else:

3> if the *RRCReconfiguration* includes the *reconfigurationWithSync* in *spCellConfig* for the SCG; and

3> if the UE was configured with *successPSCell-Config* when connected to the source PSCell (for PSCell change):

4> perform the actions for the successful PSCell change report determination as specified in clause 5.7.10.7, upon successfully completing the Random Access procedure triggered for the *reconfigurationWithSync* in *spCellConfig* of the SCG;

3> if the UE has successful PSCell change or addition information available in *VarSuccessPSCell-Report* and if the RPLMN is included in *plmn-IdentityList* stored in *VarSuccessPSCell-Report*; or

3> if the UE has successful PSCell change or addition information available in *VarSuccessPSCell-Report* and if the current registered SNPN identity is included in *snpn-IdentityList* stored in the *VarSuccessPSCell-Report*:

4> include *successPSCell-InfoAvailable* in the *RRCReconfigurationComplete* message;

3> submit the *RRCReconfigurationComplete* message via SRB3 to lower layers for transmission using the new configuration;

1> else(*RRCReconfiguration* was received via SRB1):

2> if the UE is in NR-DC and;

2> if the *RRCReconfiguration* does not include the *mrdc-SecondaryCellGroupConfig*:

3> if the *RRCReconfiguration* includes the *scg-State*:

4> perform SCG deactivation as specified in 5.3.5.13b;

3> else:

4> perform SCG activation without SN message as specified in 5.3.5.13b1;

2> if the *reconfigurationWithSync* was included in *spCellConfig* of an MCG:

3> if *ta-Report* or *ta-ReportATG* is configured with value *enabled* and the UE supports TA reporting:

4> indicate TA report initiation to lower layers;

2> submit the *RRCReconfigurationComplete* message via SRB1 to lower layers for transmission using the new configuration;

2> if this is the first *RRCReconfiguration* message after successful completion of the RRC re-establishment procedure:

3> resume SRB2, SRB4, SRB6, DRBs, multicast MRB, and BH RLC channels for IAB-MT, and Uu Relay RLC channels for L2 U2N Relay UE in case of single hop or for L2 Last U2N Relay UE, that are suspended;

1> if *sl-IndirectPathAddChange* was included in *RRCReconfiguration* message:

2> if SRB1 is configured as split SRB and *pdcp-Duplication* is configured:

3> when successfully sending *RRCReconfigurationComplete* message via SL indirect path (i.e., PC5 RLC acknowledgement is received from target L2 U2N Relay UE):

4> stop timer T421;

2> else (i.e. split SRB1 with duplication is not configured):

3> when receiving *RRCReconfigurationCompleteSidelink* message from target L2 U2N Relay UE:

4> stop timer T421;

1> if *reconfigurationWithSync* was included in *spCellConfig* of an MCG or SCG and when MAC of an NR cell group successfully completes a Random Access procedure triggered above; or,

1> if *sl-PathSwitchConfig* was included in *reconfigurationWithSync* included in *spCellConfig* of an MCG, and when successfully sending *RRCReconfigurationComplete* message (i.e., PC5 RLC acknowledgement is received from target L2 U2N Relay UE); or,

1> if *rach-LessHO* was included in *reconfigurationWithSync* included in *spCellConfig* of an MCG, and upon indication from lower layers that the RACH-less handover has been successfully completed; or,

1> if *reconfigurationWithSync* was included in *spCellConfig* of an MCG or SCG and the *RRCReconfiguration* message is applied due to an LTM cell switch execution and upon an indication from lower layer that the LTM cell switch execution has been successfully completed:

2> stop timer T304 for that cell group if running;

2> if *rach-LessHO* was included in *reconfigurationWithSync* included in *spCellConfig* of an MCG, and upon indication from lower layers that the RACH-less handover has been successfully completed; or,

2> if *reconfigurationWithSync* was included in *spCellConfig* of an MCG or SCG and the *RRCReconfiguration* message is applied due to an LTM cell switch execution and upon an indication from lower layer that the LTM cell switch execution has been successfully completed:

3> release dedicated preambles provided in *rach-ConfigDedicated* within *reconfigurationWithSync*, if configured;

3> release dedicated msgA PUSCH resources provided in *rach-ConfigDedicated* within *reconfigurationWithSync*, if configured;

3> release the dedicated scheduling request resources provided in *ltm-SchedulingRequestResources* within *reconfigurationWithSync*, if configured;

2> if *sl-PathSwitchConfig* was included in *reconfigurationWithSync*:

3> if the *sl-IndirectPathMaintain* is not included in *reconfigurationWithSync*:

4> stop timer T420;

4> release all radio resources, including release of the RLC entities and the MAC configuration at the source side;

4> reset MAC used in the source cell;

3> else (*sl-IndirectPathMaintain* is included):

4> release radio resources on the direct path, including release of the RLC entities and the MAC configuration;

4> reset MAC used in the source cell;

2> if *rach-LessHO* was included in *reconfigurationWithSync* and *cg-RRC-Configuration* was configured:

3> release the uplink grant configured for RACH-less handover;

NOTE 2b: PDCP and SDAP configured by the source prior to the path switch that are reconfigured and re-used by target when delta signalling is used, are not released as part of this procedure.

2> stop timer T310 for source SpCell if running;

2> apply the parts of the CSI reporting configuration, the scheduling request configuration and the sounding RS configuration that do not require the UE to know the SFN of the respective target SpCell, if any;

2> apply the parts of the measurement and the radio resource configuration that require the UE to know the SFN of the respective target SpCell (e.g. measurement gaps, periodic CQI reporting, scheduling request configuration, sounding RS configuration), if any, upon acquiring the SFN of that target SpCell;

2> for each DRB configured as DAPS bearer, request uplink data switching to the PDCP entity, as specified in TS 38.323 [5];

2> if the *reconfigurationWithSync* was included in *spCellConfig* of an MCG:

3> if T390 is running:

4> stop timer T390 for all access categories;

4> perform the actions as specified in 5.3.14.4.

3> if T350 is running:

4> stop timer T350;

3> if *RRCReconfiguration* does not include *dedicatedSIB1-Delivery* and

3> if the active downlink BWP, which is indicated by the *firstActiveDownlinkBWP-Id* for the target SpCell of the MCG, has a common search space configured by *searchSpaceSIB1*:

4> acquire the *SIB1*, which is scheduled as specified in TS 38.213 [13], of the target SpCell of the MCG;

4> upon acquiring *SIB1*, perform the actions specified in clause 5.2.2.4.2;

2> if the *RRCReconfiguration* message is applied due to a conditional reconfiguration execution and the *RRCReconfiguration* message is contained in an entry in MCG *VarConditionalReconfig* that includes the *subsequentCondReconfig*:

3> for each entry in the *condReconfigList* within the MCG *VarConditionalReconfig*:

4> if there is an entry in *condExecutionCondToAddModList* within the *subsequentCondReconfig* that has *subsequentCondReconfigId* matching the *condReconfigId* in the entry of the *condReconfigList*:

5> if *subsequentCondExecutionCondSCG* is included in the entry of the *condExecutionCondToAddModList*:

6> store in the *condExecutionCondSCG* in the entry of the *condReconfigList* the value of *subsequentCondExecutionCondSCG* in the entry of the *condExecutionCondToAddModList*;

2> if the *RRCReconfiguration* message is applied due to a conditional reconfiguration execution and the *RRCReconfiguration* message is contained in an entry in SCG *VarConditionalReconfig* that includes the *subsequentCondReconfig*:

3> for each entry in the *condReconfigList* within the SCG *VarConditionalReconfig*:

4> if there is an entry in *condExecutionCondToAddModList* within the *subsequentCondReconfig* that has *subsequentCondReconfigId* matching the *condReconfigId* in the entry of the *condReconfigList*:

5> if *subsequentCondExecutionCond* is included in the entry of the *condExecutionCondToAddModList*:

6> store in the *condExecutionCond* in the entry of the *condReconfigList* the value of *subsequentCondExecutionCond* in the entry of the *condExecutionCondToAddModList*;

2> if the *reconfigurationWithSync* was included in *spCellConfig* of an MCG; or

2> if the *reconfigurationWithSync* was included in *spCellConfig* of an SCG and the CPA, CPC, or subsequent CPAC was configured:

3> remove all the entries in the *condReconfigList* within the MCG and the SCG *VarConditionalReconfig* except for the entries in which *subsequentCondReconfig* is present, if any;

3> remove all the entries within *VarConditionalReconfiguration* as specified in TS 36.331 [10], clause 5.3.5.9.6, if any;

3> for each *measId* of the MCG *measConfig*, if configured, and for each *measId* of the SCG *measConfig*, if configured, if the associated *reportConfig* has a *reportType* set to *condTriggerConfig*:

4> if the *reportConfigId* is not associated with any *measId* indicated by the *condExecutionCond* or the *condExecutionCondSCG* in an entry of *condReconfigList* in *VarConditionalReconfig* in which *subsequentCondReconfig* is included:

5> remove the entry with the matching *reportConfigId* from the *reportConfigList* within the *VarMeasConfig*;

4> if the associated *measObjectId* is only associated to a *reportConfig* with *reportType* set to *condTriggerConfig*; and

4> if the *measObjectId* is not associated with any *measId* indicated by the *condExecutionCond* or the *condExecutionCondSCG* in an entry of *condReconfigList* in *VarConditionalReconfig* in which *subsequentCondReconfig* is included:

5> remove the entry with the matching *measObjectId* from the *measObjectList* within the *VarMeasConfig*;

4> remove the entry with the matching *measId* from the *measIdList* within the *VarMeasConfig*;

2> if *reconfigurationWithSync* was included in *masterCellGroup* or *secondaryCellGroup*:

3> if the UE initiated transmission of a *UEAssistanceInformation* message for the corresponding cell group during the last 1 second, and the UE is still configured to provide the concerned UE assistance information for the corresponding cell group; or

3> if the *RRCReconfiguration* message is applied due to a conditional reconfiguration execution or an LTM cell switch procedure, and the UE is configured to provide UE assistance information for the corresponding cell group, and the UE has initiated transmission of a *UEAssistanceInformation* message for the corresponding cell group since it was configured to do so in accordance with 5.7.4.2:

4> initiate transmission of a *UEAssistanceInformation* message for the corresponding cell group in accordance with clause 5.7.4.3 to provide the concerned UE assistance information;

4> start or restart the prohibit timer (if exists) associated with the concerned UE assistance information with the timer value set to the value in corresponding configuration;

4> start or restart the leave without response timer (if exists) with the timer value set to the value in the *musim-LeaveAssistanceConfig* or the wait timer (if exists) with the timer value set to the value in *musim-CapabilityRestrictionConfig*;

3> if *SIB12* is provided by the target PCell, and the UE initiated transmission of a *SidelinkUEInformationNR* message indicating a change of NR sidelink communication/discovery related parameters relevant in target PCell during the last 1 second preceding reception of the *RRCReconfiguration* message including *reconfigurationWithSync* in *spCellConfig* of an MCG; or

3> if the *RRCReconfiguration* message is applied due to a conditional reconfiguration execution and the UE is capable of NR sidelink communication/discovery and *SIB12* is provided by the target PCell, and the UE has initiated transmission of a *SidelinkUEInformationNR* message since it was configured to do so in accordance with 5.8.3.2:

4> initiate transmission of the *SidelinkUEInformationNR* message in accordance with 5.8.3.3;

3> if any application layer measurement report container has been received from upper layers for which the successful transmission of the *MeasurementReportAppLayer* message or at least one segment of the message via SRB4 (if *reconfigurationWithSync* was included in *masterCellGroup*) or SRB5 (if *reconfigurationWithSync* was included in *secondaryCellGroup*) has not been confirmed by lower layers:

4> if RRC segmentation was used for the *MeasurementReportAppLayer* message:

5> if RRC segmentation is enabled based on the field *rrc-SegAllowedSRB4* or *rrc-SegAllowedSRB5* for the *reportingSRB* (or SRB4 if *reportingSRB* is not configured):

6> re-submit all segments of the *MeasurementReportAppLayer* message to lower layers for transmission via the *reportingSRB* (or SRB4 if *reportingSRB* is not configured);

5> else:

6> discard all segments of the *MeasurementReportAppLayer* message;

4> else:

5> re-submit the *MeasurementReportAppLayer* message to lower layers for transmission via the *reportingSRB* (or SRB4 if *reportingSRB* is not configured);

2> if *reconfigurationWithSync* was included in *masterCellGroup* and SRB4 is configured in the target cell:

3> for each application layer measurement configuration in the UE:

4> if the *RRCReconfiguration* message is applied due to a conditional reconfiguration execution, if *transmissionOfSessionStartStop* is set to *true* for the application layer measurement configuration and if the session status has changed since the UE was configured with the conditional reconfiguration:

5> initiate transmission of a *MeasurementReportAppLayer* message including *appLayerSessionStatus*, via SRB4 for the application layer measurement in accordance with 5.7.16.2;

2> if *reconfigurationWithSync* was included in *masterCellGroup* and the target cell provides *SIB21* or provides *SIB1* including *nonServingCellMII*:

3> if the UE initiated transmission of an *MBSInterestIndication*message during the last 1 second preceding reception of this *RRCReconfiguration* message; or

3> if the *RRCReconfiguration* message is applied due to a conditional reconfiguration execution, and the UE has initiated transmission of an *MBSInterestIndication* message after having received this *RRCReconfiguration* message:

4> initiate transmission of an *MBSInterestIndication*message in accordance with clause 5.9.4;

2> the procedure ends.

NOTE 3: The UE is only required to acquire broadcasted *SIB1* if the UE can acquire it without disrupting unicast or MBS multicast data reception, i.e. the broadcast and unicast/MBS multicast beams are quasi co-located.

NOTE 4: The UE sets the content of *UEAssistanceInformation* according to latest configuration (i.e. the configuration after applying the *RRCReconfiguration* message) and latest UE preference. The UE may include more than the concerned UE assistance information within the *UEAssistanceInformation* according to 5.7.4.2. Therefore, the content of *UEAssistanceInformation* message might not be the same as the content of the previous *UEAssistanceInformation* message.

*END OF CHANGES*

*START OF CHANGES*

### 6.3.2 Radio resource control information elements

#### – *CellGroupConfig*

The *CellGroupConfig* IE is used to configure a master cell group (MCG) or secondary cell group (SCG). A cell group comprises of one MAC entity, a set of logical channels with associated RLC entities and of a primary cell (SpCell) and one or more secondary cells (SCells). For an NCR-MT, the *CellGroupConfig* IE is also used to provide the configuration of side control information for the NCR-Fwd access link.

*CellGroupConfig* information element

-- ASN1START

-- TAG-CELLGROUPCONFIG-START

-- Configuration of one Cell-Group:

CellGroupConfig ::= SEQUENCE {

 cellGroupId CellGroupId,

 rlc-BearerToAddModList SEQUENCE (SIZE(1..maxLC-ID)) OF RLC-BearerConfig OPTIONAL, -- Need N

 rlc-BearerToReleaseList SEQUENCE (SIZE(1..maxLC-ID)) OF LogicalChannelIdentity OPTIONAL, -- Need N

 mac-CellGroupConfig MAC-CellGroupConfig OPTIONAL, -- Need M

 physicalCellGroupConfig PhysicalCellGroupConfig OPTIONAL, -- Need M

 spCellConfig SpCellConfig OPTIONAL, -- Need M

 sCellToAddModList SEQUENCE (SIZE (1..maxNrofSCells)) OF SCellConfig OPTIONAL, -- Need N

 sCellToReleaseList SEQUENCE (SIZE (1..maxNrofSCells)) OF SCellIndex OPTIONAL, -- Need N

 ...,

 [[

 reportUplinkTxDirectCurrent ENUMERATED {true} OPTIONAL -- Cond BWP-Reconfig

 ]],

 [[

 bap-Address-r16 BIT STRING (SIZE (10)) OPTIONAL, -- Need M

 bh-RLC-ChannelToAddModList-r16 SEQUENCE (SIZE(1..maxBH-RLC-ChannelID-r16)) OF BH-RLC-ChannelConfig-r16 OPTIONAL, -- Need N

 bh-RLC-ChannelToReleaseList-r16 SEQUENCE (SIZE(1..maxBH-RLC-ChannelID-r16)) OF BH-RLC-ChannelID-r16 OPTIONAL, -- Need N

 f1c-TransferPath-r16 ENUMERATED {lte, nr, both} OPTIONAL, -- Need M

 simultaneousTCI-UpdateList1-r16 SEQUENCE (SIZE (1..maxNrofServingCellsTCI-r16)) OF ServCellIndex OPTIONAL, -- Need R

 simultaneousTCI-UpdateList2-r16 SEQUENCE (SIZE (1..maxNrofServingCellsTCI-r16)) OF ServCellIndex OPTIONAL, -- Need R

 simultaneousSpatial-UpdatedList1-r16 SEQUENCE (SIZE (1..maxNrofServingCellsTCI-r16)) OF ServCellIndex OPTIONAL, -- Need R

 simultaneousSpatial-UpdatedList2-r16 SEQUENCE (SIZE (1..maxNrofServingCellsTCI-r16)) OF ServCellIndex OPTIONAL, -- Need R

 uplinkTxSwitchingOption-r16 ENUMERATED {switchedUL, dualUL} OPTIONAL, -- Need R

 uplinkTxSwitchingPowerBoosting-r16 ENUMERATED {enabled} OPTIONAL -- Need R

 ]],

 [[

 reportUplinkTxDirectCurrentTwoCarrier-r16 ENUMERATED {true} OPTIONAL -- Need N

 ]],

 [[

 f1c-TransferPathNRDC-r17 ENUMERATED {mcg, scg, both} OPTIONAL, -- Need M

 uplinkTxSwitching-2T-Mode-r17 ENUMERATED {enabled} OPTIONAL, -- Cond 2Tx

 uplinkTxSwitching-DualUL-TxState-r17 ENUMERATED {oneT, twoT} OPTIONAL, -- Cond 2Tx

 uu-RelayRLC-ChannelToAddModList-r17 SEQUENCE (SIZE(1..maxUu-RelayRLC-ChannelID-r17)) OF Uu-RelayRLC-ChannelConfig-r17

 OPTIONAL, -- Need N

 uu-RelayRLC-ChannelToReleaseList-r17 SEQUENCE (SIZE(1..maxUu-RelayRLC-ChannelID-r17)) OF Uu-RelayRLC-ChannelID-r17

 OPTIONAL, -- Need N

 simultaneousU-TCI-UpdateList1-r17 SEQUENCE (SIZE (1..maxNrofServingCellsTCI-r16)) OF ServCellIndex OPTIONAL, -- Need R

 simultaneousU-TCI-UpdateList2-r17 SEQUENCE (SIZE (1..maxNrofServingCellsTCI-r16)) OF ServCellIndex OPTIONAL, -- Need R

 simultaneousU-TCI-UpdateList3-r17 SEQUENCE (SIZE (1..maxNrofServingCellsTCI-r16)) OF ServCellIndex OPTIONAL, -- Need R

 simultaneousU-TCI-UpdateList4-r17 SEQUENCE (SIZE (1..maxNrofServingCellsTCI-r16)) OF ServCellIndex OPTIONAL, -- Need R

 rlc-BearerToReleaseListExt-r17 SEQUENCE (SIZE(1..maxLC-ID)) OF LogicalChannelIdentityExt-r17 OPTIONAL, -- Need N

 iab-ResourceConfigToAddModList-r17 SEQUENCE (SIZE(1..maxNrofIABResourceConfig-r17)) OF IAB-ResourceConfig-r17 OPTIONAL, -- Need N

 iab-ResourceConfigToReleaseList-r17 SEQUENCE (SIZE(1..maxNrofIABResourceConfig-r17)) OF IAB-ResourceConfigID-r17 OPTIONAL -- Need N

 ]],

 [[

 reportUplinkTxDirectCurrentMoreCarrier-r17 ReportUplinkTxDirectCurrentMoreCarrier-r17 OPTIONAL -- Need N

 ]],

 [[

 prioSCellPRACH-OverSP-PeriodicSRS-r17 ENUMERATED {enabled} OPTIONAL -- Need R

 ]],

 [[

 ncr-FwdConfig-r18 SetupRelease { NCR-FwdConfig-r18 } OPTIONAL, -- Cond NCR

 autonomousDenialParameters-r18 SetupRelease {AutonomousDenialParameters-r18} OPTIONAL, -- Need M

 nonCollocatedTypeMRDC-r18 ENUMERATED { true } OPTIONAL, -- Need R

 nonCollocatedTypeNR-CA-r18 ENUMERATED { true } OPTIONAL, -- Need R

 uplinkTxSwitchingMoreBands-r18 SetupRelease { UplinkTxSwitchingMoreBands-r18 } OPTIONAL -- Need M

 ]],

 [[

 mprReductionExtensionRatio-r19 ENUMERATED {ratio1, ratio2, ratio3, ratio4, ratio5, ratio6, spare2, spare1} OPTIONAL, -- Need R

 lowBandCA-Switching-r19 SetupRelease { LowBandCA-Switching-r19 } OPTIONAL, -- Need M

 nonCollocatedTypeMRDC-v1900 ENUMERATED { type1, type4 } OPTIONAL, -- Need R

 nonCollocatedTypeNR-CA-v1900 ENUMERATED { type1, type4 } OPTIONAL, -- Need R

 uplinkTxSwitching3Tx-r19 ENUMERATED { true } OPTIONAL -- Cond 3Tx

 ]]}

-- Serving cell specific MAC and PHY parameters for a SpCell:

SpCellConfig ::= SEQUENCE {

 servCellIndex ServCellIndex OPTIONAL, -- Cond SCG

 reconfigurationWithSync ReconfigurationWithSync OPTIONAL, -- Cond ReconfWithSync

 rlf-TimersAndConstants SetupRelease { RLF-TimersAndConstants } OPTIONAL, -- Need M

 rlmInSyncOutOfSyncThreshold ENUMERATED {n1} OPTIONAL, -- Need S

 spCellConfigDedicated ServingCellConfig OPTIONAL, -- Need M

 ...,

 [[

 lowMobilityEvaluationConnected-r17 SEQUENCE {

 s-SearchDeltaP-Connected-r17 ENUMERATED {dB3, dB6, dB9, dB12, dB15, spare3, spare2, spare1},

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

 spare4, spare3, spare2, spare1}

 } OPTIONAL, -- Need R

 goodServingCellEvaluationRLM-r17 GoodServingCellEvaluation-r17 OPTIONAL, -- Need R

 goodServingCellEvaluationBFD-r17 GoodServingCellEvaluation-r17 OPTIONAL, -- Need R

 deactivatedSCG-Config-r17 SetupRelease { DeactivatedSCG-Config-r17 } OPTIONAL -- Cond SCG-Opt

 ]]

}

ReconfigurationWithSync ::= SEQUENCE {

 spCellConfigCommon ServingCellConfigCommon OPTIONAL, -- Need M

 newUE-Identity RNTI-Value,

 t304 ENUMERATED {ms50, ms100, ms150, ms200, ms500, ms1000, ms2000, ms10000},

 rach-ConfigDedicated CHOICE {

 uplink RACH-ConfigDedicated,

 supplementaryUplink RACH-ConfigDedicated

 } OPTIONAL, -- Need N

 ...,

 [[

 smtc SSB-MTC OPTIONAL -- Need S

 ]],

 [[

 daps-UplinkPowerConfig-r16 DAPS-UplinkPowerConfig-r16 OPTIONAL -- Need N

 ]],

 [[

 sl-PathSwitchConfig-r17 SL-PathSwitchConfig-r17 OPTIONAL -- Cond DirectToIndirect-PathSwitch

 ]],

 [[

 rach-LessHO-r18 RACH-LessHO-r18 OPTIONAL, -- Need N

 sl-IndirectPathMaintain-r18 ENUMERATED{true} OPTIONAL -- Cond MP

 ]],

 ]]

 ltm-SchedulingRequestResources-r19 SEQUENCE (SIZE(1..maxNroSR-Resources)) OF SchedulingRequestResourceConfig OPTIONAL -- Cond LTM

 ]]

}

DAPS-UplinkPowerConfig-r16 ::= SEQUENCE {

 p-DAPS-Source-r16 P-Max,

 p-DAPS-Target-r16 P-Max,

 uplinkPowerSharingDAPS-Mode-r16 ENUMERATED {semi-static-mode1, semi-static-mode2, dynamic }

}

SCellConfig ::= SEQUENCE {

 sCellIndex SCellIndex,

 sCellConfigCommon ServingCellConfigCommon OPTIONAL, -- Cond SCellAdd

 sCellConfigDedicated ServingCellConfig OPTIONAL, -- Cond SCellAddMod

 ...,

 [[

 smtc SSB-MTC OPTIONAL -- Need S

 ]],

 [[

 sCellState-r16 ENUMERATED {activated} OPTIONAL, -- Cond SCellAddSync

 secondaryDRX-GroupConfig-r16 ENUMERATED {true} OPTIONAL -- Need S

 ]],

 [[

 preConfGapStatus-r17 BIT STRING (SIZE (maxNrofGapId-r17)) OPTIONAL, -- Cond PreConfigMG

 goodServingCellEvaluationBFD-r17 GoodServingCellEvaluation-r17 OPTIONAL, -- Need R

 sCellSIB20-r17 SetupRelease { SCellSIB20-r17 } OPTIONAL -- Need M

 ]],

 [[

 plmn-IdentityInfoList-r17 SetupRelease {PLMN-IdentityInfoList} OPTIONAL, -- Cond SCellSIB20-Opt

 npn-IdentityInfoList-r17 SetupRelease {NPN-IdentityInfoList-r16} OPTIONAL -- Cond SCellSIB20-Opt

 ]],

 [[

 od-ssb-r19 SetupRelease {OD-SSB-r19} OPTIONAL, -- Need M

 adap-SSB-Config-r19 SetupRelease {Adap-SSB-Config-r19} OPTIONAL -- Need M

 ]]

}

SCellSIB20-r17 ::= OCTET STRING (CONTAINING SystemInformation)

DeactivatedSCG-Config-r17 ::= SEQUENCE {

 bfd-and-RLM-r17 BOOLEAN,

 ...

}

GoodServingCellEvaluation-r17 ::= SEQUENCE {

 offset-r17 ENUMERATED {db2, db4, db6, db8} OPTIONAL -- Need S

}

SL-PathSwitchConfig-r17 ::= SEQUENCE {

 targetRelayUE-Identity-r17 SL-SourceIdentity-r17,

 t420-r17 ENUMERATED {ms50, ms100, ms150, ms200, ms500, ms1000, ms2000, ms10000},

 ...

}

IAB-ResourceConfig-r17 ::= SEQUENCE {

 iab-ResourceConfigID-r17 IAB-ResourceConfigID-r17,

 slotList-r17 SEQUENCE (SIZE (1..5120)) OF INTEGER (0..5119) OPTIONAL, -- Need M

 periodicitySlotList-r17 ENUMERATED {ms0p5, ms0p625, ms1, ms1p25, ms2, ms2p5, ms5, ms10, ms20, ms40, ms80, ms160} OPTIONAL, -- Need M

 slotListSubcarrierSpacing-r17 SubcarrierSpacing OPTIONAL, -- Need M

 ...

}

IAB-ResourceConfigID-r17 ::= INTEGER(0..maxNrofIABResourceConfig-1-r17)

ReportUplinkTxDirectCurrentMoreCarrier-r17 ::= SEQUENCE (SIZE(1.. maxSimultaneousBands)) OF IntraBandCC-CombinationReqList-r17

IntraBandCC-CombinationReqList-r17::= SEQUENCE {

 servCellIndexList-r17 SEQUENCE (SIZE(1.. maxNrofServingCells)) OF ServCellIndex,

 cc-CombinationList-r17 SEQUENCE (SIZE(1.. maxNrofReqComDC-Location-r17)) OF IntraBandCC-Combination-r17

}

IntraBandCC-Combination-r17::= SEQUENCE (SIZE(1.. maxNrofServingCells)) OF CC-State-r17

CC-State-r17::= SEQUENCE {

 dlCarrier-r17 CarrierState-r17 OPTIONAL, -- Need N

 ulCarrier-r17 CarrierState-r17 OPTIONAL -- Need N

}

CarrierState-r17::= CHOICE {

 deActivated-r17 NULL,

 activeBWP-r17 INTEGER (0..maxNrofBWPs)

}

AutonomousDenialParameters-r18 ::= SEQUENCE {

 autonomousDenialSlots-r18 ENUMERATED {n2, n5, n10, n15, n20, n30, spare2, spare1},

 autonomousDenialValidity-r18 ENUMERATED {n200, n500, n1000, n2000}

}

RACH-LessHO-r18 ::= SEQUENCE {

 targetNTA-r18 ENUMERATED {zero, source} OPTIONAL, -- Need N

 beamIndication-r18 CHOICE {

 tci-StateID-r18 TCI-StateId,

 ssb-Index-r18 SSB-Index

 } OPTIONAL, -- Need N

 ...

}

UplinkTxSwitchingMoreBands-r18::= SEQUENCE {

 uplinkTxSwitchingBandList-r18 SEQUENCE (SIZE (1..maxSimultaneousBands)) OF FreqBandIndicatorNR OPTIONAL, -- Need M

 uplinkTxSwitchingBandPairList-r18 UplinkTxSwitchingBandPairList-r18 OPTIONAL, -- Need M

 uplinkTxSwitchingAssociatedBandDualUL-List-r18 UplinkTxSwitchingAssociatedBandDualUL-List-r18 OPTIONAL, -- Need M

 ...

}

UplinkTxSwitchingBandPairList-r18::= SEQUENCE (SIZE (1.. maxULTxSwitchingBandPairs)) OF UplinkTxSwitchingBandPairConfig-r18

UplinkTxSwitchingBandPairConfig-r18::= SEQUENCE {

 bandInfoUL1-r18 UplinkTxSwitchingBandIndex-r18,

 bandInfoUL2-r18 UplinkTxSwitchingBandIndex-r18,

 switchingOptionConfigForBandPair-r18 ENUMERATED {switchedUL, dualUL},

 switching2T-Mode-r18 ENUMERATED {enabled} OPTIONAL, -- Need S

 switchingPeriodConfigForBandPair-r18 ENUMERATED {n35us, n140us} OPTIONAL, -- Need S

 ...

}

UplinkTxSwitchingAssociatedBandDualUL-List-r18::= SEQUENCE (SIZE (0..maxSimultaneousBands)) OF UplinkTxSwitchingAssociatedBandDualUL-r18

UplinkTxSwitchingAssociatedBandDualUL-r18::= SEQUENCE {

 transmitBand-r18 UplinkTxSwitchingBandIndex-r18,

 associatedBand-r18 UplinkTxSwitchingBandIndex-r18

}

UplinkTxSwitchingBandIndex-r18::= INTEGER (1..maxSimultaneousBands)

OD-SSB-r19 ::= SEQUENCE {

 od-ssb-SFN-Offset-r19 INTEGER (0..15) OPTIONAL, -- Cond ODssbAOssb

 od-ssb-halfFrameIndex-r19 ENUMERATED {zero, one} OPTIONAL, -- Cond ODssbAOssb

 od-ssb-absoluteFrequency-r19 ARFCN-ValueNR OPTIONAL, -- Cond ODssbAOssb

 od-ssb-SubcarrierSpacing-r19 SubcarrierSpacing OPTIONAL, -- Cond ODssbOnly

 od-ssb-PBCH-BlockPower-r19 INTEGER (-60..50) OPTIONAL, -- Cond ODssbOnly

 od-SSB-ConfigToAddModList-r19 SEQUENCE (SIZE (1.. maxNrofOD-SSB-r19)) OF OD-SSB-Config-r19 OPTIONAL, -- Need N

 od-SSB-ConfigToReleaseList-r19 SEQUENCE (SIZE (1.. maxNrofOD-SSB-r19)) OF OD-SSB-ConfigId-r19 OPTIONAL -- Need N

}

Adap-SSB-Config-r19 ::= SEQUENCE {

 adap-SSB-BurstPeriodicityList-r19 SEQUENCE (SIZE (1..2)) OF Adap-SSB-BurstPeriodicity-r19 OPTIONAL, -- Need N

 adap-PosInDCI-ssbPeriodicityIndicationForScell-r19 INTEGER (1..maxDCI-2-9-Size-r18) OPTIONAL -- Need N

}

Adap-SSB-BurstPeriodicity-r19 ::= SEQUENCE {

 adap-ssb-Periodicity-r19 ENUMERATED { ms5, ms10, ms20, ms40, ms80, ms160, spare2, spare1 } OPTIONAL, -- Need S

 adap-ssb-Offset-r19 INTEGER (1..maxDCI-2-9-Size-r18) OPTIONAL, -- Need N

 adap-ssb-halfFrameIndex-r19 ENUMERATED { firsthalf, secondhalf } OPTIONAL -- Need N

}

LowBandCA-Switching-r19::= SEQUENCE {

 switchingPattern-r19 BIT STRING (SIZE (40)) OPTIONAL, -- Need M

 gapDurationPCelltoSCell-r19 INTEGER (1..3) OPTIONAL, -- Need M

 gapDurationSCelltoPCell-r19 INTEGER (1..31) OPTIONAL, -- Need M

 ...

}

-- TAG-CELLGROUPCONFIG-STOP

-- ASN1STOP

|  |
| --- |
| *AutonomousDenialParamters* field descriptions |
| ***autonomousDenialSlots***Indicates the maximum number of the UL slots for which the UE is allowed to deny any UL transmission. Value *n2* corresponds to 2 slots, value *n5* to 5 slots and so on. |
| ***autonomousDenialValidity***Indicates the validity period over which the UL autonomous denial slots shall be counted. Value *n200* corresponds to 200 slots, value *n500* corresponds to 500 slots and so on. |

|  |
| --- |
| *CC-State* field descriptions |
| ***dlCarrier***Indicates DL carrier activation state for this carrier and the related active BWP Index, if activated. |
| ***ulCarrier***Indicates UL carrier activation state for this carrier and the related active BWP Index, if activated. |

|  |
| --- |
| *CellGroupConfig* field descriptions |
| ***bap-Address***BAP address of the parent node in cell group. |
| ***bh-RLC-ChannelToAddModList***Configuration of the backhaul RLC entities and the corresponding MAC Logical Channels to be added and modified. |
| ***bh-RLC-ChannelToReleaseList***List of the backhaul RLC entities and the corresponding MAC Logical Channels to be released. |
| ***f1c-TransferPath***The F1-C transfer path that an EN-DC IAB-MT should use for transferring F1-C packets to the IAB-donor-CU. If IAB-MT is configured with *lte*, IAB-MT can only use LTE leg for F1-C transfer. If IAB-MT is configured with *nr*, IAB-MT can only use NR leg for F1-C transfer. If IAB-MT is configured with *both*, it is up to IAB-MT to select an LTE leg or a NR leg for F1-C transfer. If the field is not configured, the IAB node uses the NR leg as the default one. |
| ***f1c-TransferPathNRDC***The F1-C transfer path that an NR-DC IAB-MT should use for transferring F1-C packets to the IAB-donor-CU. If IAB-MT is configured with *mcg*, IAB-MT can only use the MCG for F1-C transfer. If IAB-MT is configured with *scg*, IAB-MT can only use the SCG for F1-C transfer. If IAB-MT is configured with *both*, it is up to IAB-MT to select the MCG or the SCG for F1-C transfer. |
| ***mac-CellGroupConfig***MAC parameters applicable for the entire cell group. |
| ***mprReductionExtensionRatio***Indicates the pair of lower-sided and higher-sided extension ratio as specified in TS 38.101-1 [15]. The *ratio1* represents (1/2, 0), the *ratio2* represents (0, 1/2), *ratio3* represents (1/2, 1/2), *ratio4* represents (1/4, 0), *ratio5* represents (0, 1/4), *ratio6* represents (1/4, 1/4). The first/leftmost value of the pair represents the lower-sided extension ratio, the second value of the pair represents the higher-sided extension ratio. The network can only configure this field in case of non-CA in NR SA. |
| ***ncr-FwdConfig***Configuration of side control information for the NCR-Fwd access link. |
| ***nonCollocatedTypeMRDC***The field *nonCollocatedTypeMRDC* (without suffix) is only present for a UE configured with *maxMIMO-Layers* with value less than or equal to 2 for all corresponding serving cells, in case of TDD-TDD inter-band (NG) EN-DC with overlapping or partially overlapping bands. If the field *nonCollocatedTypeMRDC* (without suffix) is present, the UE applies (NG)EN-DC MTTD/MRTD according to clause 7.5.3/7.6.3 in TS 38.133 [14] and inter-band RF requirements (i.e. Type 1 UE requirement). If the field *nonCollocatedTypeMRDC* (without suffix) is absent, the UE applies (NG)EN-DC MTTD/MRTD according to clause 7.5.2/7.6.2 in TS 38.133 [14] and inter-band RF requirements (i.e. Type 2 UE requirement) if the UE is configured with *maxMIMO-Layers* with value less than or equal to 2 for all corresponding serving cells and indicates the support of *interBandMRDC-WithOverlapDL-Bands-r16*.The field *nonCollocatedTypeMRDC-v1900* is only present for a UE configured with *maxMIMO-Layers* with value equal to 4 for all corresponding serving cells, or with *maxMIMO-Layers* with value equal to 2 for the serving cell(s) of the corresponding EUTRA band and 4 for the serving cell of the corresponding NR band. If *nonCollocatedTypeMRDC-v1900* is present with *type4*, the UE applies (NG)EN-DC MTTD/MRTD according to clause 7.5.2/7.6.2 in TS38.133 [14] andinter-band RF requirements including clause 7.10B in TS38.101-3 [34] (i.e. Type 4 UE requirement). If *nonCollocatedTypeMRDC-v1900* is present with *type1* or absent, the UE applies (NG)EN-DC MTTD/MRTD according to clause 7.5.3/7.6.3 of in TS38.133 [14] andinter-band RF requirements except clause 7.10B in TS38.101-3 [34] (i.e. Type 1 UE requirement) if the UE is configured with *maxMIMO-Layers* with value equal to 4 for all corresponding serving cells, or with *maxMIMO-Layers* with value equal to 2 for the serving cell(s) of the corresponding EUTRA band and 4 for the serving cell of the corresponding NR band. |
| ***nonCollocatedTypeNR-CA***The field *nonCollocatedTypeNR-CA* (without suffix) is only present for a UE configured with *maxMIMO-Layers* with value less than or equal to 2 for all corresponding serving cells, in case of TDD-TDD intra-band NR-CA. If the field *nonCollocatedTypeNR-CA* (without suffix) is present, the UE applies MRTD according to Table 7.6.4-1 in TS 38.133 [14] and UE RF requirements for intra-band NR-CA except for 7.10A in TS 38.101-1 [15] (i.e. Type 1 UE requirement). If the field *nonCollocatedTypeNR-CA* (without suffix) is absent, the UE applies MTTD/MRTD requirements according to Table 7.5.4-1/Table 7.6.4-2 in TS 38.133 [14] and UE RF requirements for intra-band non-collocated NR-CA including 7.10A in TS 38.101-1 [15] (i.e. Type 2 UE requirement) if the UE is configured with *maxMIMO-Layers* with value less than or equal to 2 for all corresponding serving cells and indicates support of *intraBandNR-CA-non-collocated-r18*.The field *nonCollocatedTypeNR-CA-v1900* is only present for a UE configured with *maxMIMO-Layers* with value equal to 4 for all corresponding serving cells. If *nonCollocatedTypeNR-CA-v1900* is present with *type4*, the UE applies MTTD/MRTD requirements according to Table 7.5.4-1/7.6.4-2 in TS38.133 [14] and UE RF requirements for intra-band non-collocated NR-CA including 7.10A in TS38.101-1 [15] (i.e. Type 4 UE requirement) when indicating support of *intraBandNR-CA-non-collocated-r19*. If *nonCollocatedTypeNR-CA-v1900* is present with *type1* or absent, the UE applies MRTD requirements according to Table 7.6.4-1 in TS38.133 [14] and UE RF requirements for intra-band NR-CA except for 7.10A in TS38.101-1 [15] (i.e. Type 1 UE requirement) if the UE is configured with *maxMIMO-Layers* with value equal to 4 for all corresponding serving cells and indicates support of *intraBandNR-CA-non-collocated-r19*. |
| ***npn-IdentityInfoList***This field is used to transfer *npn-IdentityInfoList* in *SIB1* of the SCell. The UE uses this field to translate the *plmn-Index* in MCCH of SCell to SNPN Identity. If this field and *plmn-IdentityInfoList* are both absent, the UE uses the *npn-IdentityInfoList* in *SIB1* of the PCell. |
| ***plmn-IdentityInfoList***This field is used to transfer *plmn-IdentityInfoList* in *SIB1* of the SCell. The UE uses this field to translate the *plmn-Index* in MCCH of SCell to PLMN Identity. If this field and *npn-IdentityInfoList* are both absent, the UE uses the *plmn-IdentityInfoList* in *SIB1* of the PCell. |
| ***prioSCellPRACH-OverSP-PeriodicSRS***When configured, the UE applies UL power control prioritization by prioritizing PRACH transmission on SCell over semi-persistent and/or periodic SRS transmission as defined in clause 7.5 of TS 38.213 [13]. |
| ***rlc-BearerToAddModList***Configuration of the MAC Logical Channel, the corresponding RLC entities and association with radio bearers. |
| ***reportUplinkTxDirectCurrent***Enables reporting of uplink and supplementary uplink Direct Current location information upon BWP configuration and reconfiguration. This field is only present when the BWP configuration is modified or any serving cell is added or removed. This field is absent in the IE *CellGroupConfig* when provided as part of *RRCSetup* message. If UE is configured with SUL carrier, UE reports both UL and SUL Direct Current locations. |
| ***reportUplinkTxDirectCurrentMoreCarrier***Enables reporting of uplink Direct Current location information when the UE is configured with intra-band CA. This field is absent in the IE *CellGroupConfig* when provided as part of *RRCSetup* message. The UE only reports the uplink Direct Current location information that are related to the indicated *cc-CombinationList*. The network does not include carriers which locate in DL only spectrum described in TS 38.101-2 [39], clause 5.3A.4 and defined by Fsd according to Table 5.3A.4-3 in FR2 in the *IntraBandCC-CombinationReqList*. I.e. DL-only carrier in FR2 frequency spectrum is not used to calculate the default DC location. |
| ***reportUplinkTxDirectCurrentTwoCarrier***Enables reporting of uplink Direct Current location information when the UE is configured with uplink intra-band CA with two carriers. This field is absent in the IE *CellGroupConfig* when provided as part of *RRCSetup* message. |
| ***rlc-BearerToReleaseListExt***List of the RLC entities and the corresponding MAC Logical Channels to be released for multicast MRBs. |
| ***rlmInSyncOutOfSyncThreshold***BLER threshold pair index for IS/OOS indication generation, see TS 38.133 [14]. *n1* corresponds to the value 1. When the field is absent, the UE applies the value 0. Whenever this is reconfigured, UE resets N310 and N311, and stops T310, if running. Network does not include this field. |
| ***sCellSIB20***This field is used to transfer *SIB20* of the SCell in order to allow the UE for MBS broadcast reception on SCell. The network configures this field only for a single SCell at a time. |
| ***sCellToAddModList***List of secondary serving cells (SCells) to be added or modified. |
| ***sCellToReleaseList***List of secondary serving cells (SCells) to be released. |
| ***simultaneousSpatial-UpdatedList1, simultaneousSpatial-UpdatedList2***List of serving cells which can be updated simultaneously for spatial relation with a MAC CE. The *simultaneousSpatial-UpdatedList1* and *simultaneousSpatial-UpdatedList2* shall not contain same serving cells. Network should not configure serving cells that are configured with a BWP with two different values for the *coresetPoolIndex* in these lists. |
| ***simultaneousTCI-UpdateList1, simultaneousTCI-UpdateList2***List of serving cells which can be updated simultaneously for TCI relation with a MAC CE. The *simultaneousTCI-UpdateList1* and *simultaneousTCI-UpdateList2* shall not contain same serving cells. Network should not configure serving cells that are configured with a BWP with two different values for the *coresetPoolIndex* in these lists. |
| ***simultaneousU-TCI-UpdateList1, simultaneousU-TCI-UpdateList2, simultaneousU-TCI-UpdateList3, simultaneousU-TCI-UpdateList4***List of serving cells for which the Unified TCI States Activation/Deactivation MAC CE, the Enhanced Unified TCI States Activation/Deactivation MAC CE for Joint TCI States or the Enhanced Unified TCI States Activation/Deactivation MAC CE for Separate TCI States apply simultaneously, as specified in TS 38.321 [3] clauses 6.1.3.47, 6.1.3.70 and 6.1.3.71, respectively. The different lists shall not contain same serving cells. Network only configures in these lists serving cells that are configured with *unifiedTCI-StateType*. Network should not configure serving cells that are configured with a BWP with different number of *coresetPoolIndexes* in the same list. |
| ***spCellConfig***Parameters for the SpCell of this cell group (PCell of MCG or PSCell of SCG).  |
| ***uplinkTxSwitchingOption***Indicates which option is configured for dynamic UL Tx switching for inter-band UL CA or (NG)EN-DC. The field is set to *switchedUL* if network configures option 1 as specified in TS 38.214 [19], or *dualUL* if network configures option 2 as specified in TS 38.214 [19]. Network always configures UE with a value for this field in inter-band UL CA case and (NG)EN-DC case where UE supports dynamic UL Tx switching. This field is not applicable for a UE configured with *uplinkTxSwitching3Tx*. |
| ***uplinkTxSwitchingPowerBoosting***Indicates whether the UE is allowed to enable 3dB boosting on the maximum output power for transmission on carrier2 under the operation state in which 2-port transmission can be supported on carrier2 for inter-band UL CA case with dynamic UL Tx switching as defined in TS 38.101-1 [15]. Network can only configure this field for dynamic UL Tx switching in inter-band UL CA case with power Class 3 as defined in TS 38.101-1 [15]. |
| ***uplinkTxSwitching-2T-Mode***Indicates 2Tx-2Tx switching mode is configured for inter-band UL CA or SUL, in which the switching gap duration for a triggered uplink switching (as specified in TS 38.214 [19]) is equal to the switching time capability value reported for the switching mode.If this field is absent and *uplinkTxSwitching* is configured, it is interpreted that 1Tx-2Tx UL Tx switching is configured as specified in TS 38.214 [19]. In this case, there is one uplink (or one uplink band in case of intra-band) configured with *uplinkTxSwitching*, on which the maximum number of antenna ports among all configured P-SRS/A-SRS and activated SP-SRS resources should be 1 and non-codebook based UL MIMO is not configured.This field is not applicable for a UE configured with *uplinkTxSwitching3Tx*. |
| ***uplinkTxSwitching-DualUL-TxState***Indicates the state of Tx chains if the state of Tx chains after the UL Tx switching is not unique (as specified in TS 38.214 [19]) in case of 2Tx-2Tx switching is configured and *uplinkTxSwitchingOption* is set to *dualUL*. Value *oneT* indicates 1Tx is assumed to be supported on the carriers on each band, value *twoT* indicates 2Tx is assumed to be supported on that carrier.This field applies for all band pairs if *uplinkTxSwitchingMoreBands* is configured.This field is not applicable for a UE configured with *uplinkTxSwitching3Tx*. |
| ***uplinkTxSwitchingMoreBands***Indicates UL band list, band pair list and other configurations for ULTx switching.This field is not applicable for a UE configured with *uplinkTxSwitching3Tx*. |
| ***uu-RelayRLC-ChannelToAddModList***List of the Uu RLC entities and the corresponding MAC Logical Channels to be added or modified. |
| ***uu-RelayRLC-ChannelToReleaseList***List of the Uu RLC entities and the corresponding MAC Logical Channels to be released. |
| ***uplinkTxSwitching3Tx***Indicates that Tx switching enhancement between 2 configured UL bands for 3Tx UEs is configured for inter-band UL CA, in which the switching gap duration for a triggered uplink switching (as specified in TS 38.214 [19]) is equal to the switching time capability value reported for the switching mode.If this field is absent and *uplinkTxSwitching* is configured, it is interpreted that 1Tx-2Tx or 2Tx-2Tx UL Tx switching is configured as specified in TS 38.214 [19]. |

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| *DeactivatedSCG-Config* field descriptions |
| ***bfd-and-RLM***If the field is set to *true*, the UE shall perform RLM and BFD on the PSCell when the SCG is deactivated and the network ensures that *beamFailure-r17* is not configured in the *radioLinkMonitoringConfig* of the DL BWP of the PSCell in which the UE performs BFD. If set to *false*, the UE is not required to perform RLM and BFD on the PSCell when the SCG is deactivated. |

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| *DAPS-UplinkPowerConfig* field descriptions |
| ***p-DAPS-Source***The maximum total transmit power to be used by the UE in the source cell group during DAPS handover. |
| ***p-DAPS-Target***The maximum total transmit power to be used by the UE in the target cell group during DAPS handover. |
| ***uplinkPowerSharingDAPS-Mode***Indicates the uplink power sharing mode that the UE uses in DAPS handover (see TS 38.213 [13]). |

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| *GoodServingCellEvaluation* field descriptions |
| ***offset***The parameter "X" (dB) for the good serving cell quality criterion in RRC\_CONNECTED, for a cell operating in FR1 and FR2, respectively. If this field is absent, the UE applies the (default) value of 0 dB for "X". |

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| *IAB-ResourceConfig* field descriptions |
| ***iab-ResourceConfigID***This ID is used to indicate the specific resource configuration addressed by the MAC CEs specified in TS 38.321 [3]. |
| ***periodicitySlotList***Indicates the periodicity in ms of the list of slot indexes indicated in *slotList*. |
| ***slotList***Indicates the list of slot indexes to which the information indicated in the specific MAC CE applies to, as specified in TS 38.321 [3]. The values of the entries in the *slotList* are strictly less than the value of the *periodicitySlotList*. |
| ***slotListSubcarrierSpacing***Subcarrier spacing used as reference for the *slotList* configuration.Only the following values are applicable depending on the used frequency:FR1: 15 or 30 kHzFR2-1: 60 or 120 kHzFR2-2: 120 or 480 kHz |

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| ***LowBandCA-Switching* field descriptions** |
| ***switchingPattern***Indicates which carrier is configured for the corresponding slot for low NR band carrier aggregation via switching between FDD and supplementary downlink (SDL) carrier. ‘0’ indicates FDD carrier (PCell), and ‘1’ indicates SDL carrier (SCell). The pattern starts from the beginning of SFN 0 of PCell. |
| ***gapDurationPCelltoSCell***Indicates the duration of the switching gap for the switching from PCell to the SCell, in the unit of 15KHz SCS symbol. NW ensures that the switching gap is enough to cover at least the switching period. |
| ***gapDurationSCelltoPCell***Indicates the duration of switching gap for the switching from the SCell to PCell, in the unit of 15KHz SCS symbol. NW ensures that the switching gap is enough to cover at least the switching period and TA. |

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| *OD-SSB* field descriptions |
| ***od-ssb-absoluteFrequency***Indicates the frequency of the OD-SSB when the frequency is different from *absoluteFrequencySSB* configured in IE *FrequencyInfoDL* for this serving cell. Additional restrictions as described in subclause 4.4. of TS 38.213. |
| ***od-SSB-ConfigToAddModList***List of OD-SSB configurations for this serving cell. Network configures maximum of one different OD-SSB frequency for the OD-SSB configurations which has than the serving cell SSB frequency. |
| ***od-ssb-halfFrameIndex***Indicates whether OD-SSB is in the first half or the second half of the frame. If the field is absent, the UE applies the value 0. |
| ***od-ssb-PBCH-BlockPower*** Indicates average EPRE of the resources elements that carry secondary synchronization signals in dBm that the NW used for OD-SSB transmission, see TS 38.213 [13], clause 7. If the field is absent, UE applies the value *PBCH-BlockPower* configured in IE *ServingCellConfigCommon*. |
| ***od-ssb-SFN-Offset***Indicates SFN offset from the SFN which satisfies (SFN index \*10) modulo (OD-SSB periodicity) = 0. The network configures this field according to the field *od-ssb-Periodicity* such that the indicated system frame does not exceed the OD-SSB periodicity. If the field is absent, the UE applies the value 0. |
| ***od-ssb-SubcarrierSpacing*** Indicates subcarrier spacing of OD-SSB. Only the following values are applicable depending on the used frequency:FR1: 15 or 30 kHzFR2-1/FR2-NTN: 120 or 240 kHzFR2-2: 120, 480, or 960 kHzIf the field is absent, the UE applies the value *subcarrierSpacing* configured in IE *BWP*. |

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| *RACH-LessHO* field descriptions |
| ***ssb-Index***This field indicates a beam that the UE should use in the target cell to monitor PDCCH for initial uplink transmission, see TS 38.321 [3]. The network configures this field when *cg-RRC-Configuration* is not configured for the initial uplink transmission in RACH-less handover in NTN or in case this cell is not a mobile IAB cell. |
| ***targetNTA***This field refers to the timing adjustment, see TS 38.213 [13] and TS 38.321 [3], indicating the NTA value which the UE shall use for the target PTAG of handover. The value *zero* corresponds to NTA=0, while the value *source* corresponds to the NTA value of the source PTAG indicated by the *tag-Id*. Only value *source* is configured by the network in case source cell is a mobile IAB cell. In this version of the specification, the network shall always configure this field if *rach-LessHO* is part of an *RRCReconfiguration* message. |
| ***tci-StateID***This field indicates a beam that the UE should use in the target cell to monitor PDCCH for initial uplink transmission and also indicates the TCI state information to be used in the target cell. The network configures this field in case this cell is not a NTN cell. |

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| *ReconfigurationWithSync* field descriptions |
| ***ltm-SchedulingRequestResources***Physical layer resources on PUCCH where the UE may send the scheduling request during an LTM cell switch procedure. |
| ***rach-ConfigDedicated***Random access configuration to be used for the reconfiguration with sync (e.g. handover). The UE performs the RA according to these parameters in the *firstActiveUplinkBWP* (see *UplinkConfig*). |
| ***sl-IndirectPathMaintain***Indicates that the L2 U2N Remote UE keeps the PC5 connection with its connected L2 U2N Relay UE. |
| ***smtc***The SSB periodicity/offset/duration configuration of target cell for NR PSCell change and NR PCell change. The network sets the *periodicityAndOffset* to indicate the same periodicity as *ssb-periodicityServingCell* in *spCellConfigCommon* or sets to the same periodicity as *ssb-Periodicity-r17* in *nonCellDefiningSSB-r17* if the first active DL BWP included in this RRC message is configured with *nonCellDefiningSSB-r17*.For case of NR PCell change, the *smtc* is based on the timing reference of (source) PCell. For case of NR PSCell change, it is based on the timing reference of source PSCell.If both this field and *targetCellSMTC-SCG* are absent, the UE uses the SMTC in the *measObjectNR* having the same SSB frequency and subcarrier spacing, as configured before the reception of the RRC message. If the first active DL BWP included in this RRC message is configured with *nonCellDefiningSSB-r17*, this field corresponds to the NCD-SSB indicated by *nonCellDefiningSSB-r17*, otherwise, this field corresponds to the CD-SSB indicated by *absoluteFrequencySSB* in *frequencyInfoDL*. |

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| *ReportUplinkTxDirectCurrentMoreCarrier* field descriptions |
| ***IntraBandCC-Combination***Indicates the state of the carriers and BWPs indexes of the carriers in a CC combination, each carrier in this combination corresponds to an entry in *servCellIndexList* with same order. This IE shall have the same size as *servCellIndexList*. |
| ***IntraBandCC-CombinationReqList***Indicates the list of the requested carriers/BWPs combinations for an intra-band CA component. |
| ***servCellIndexList***indicates the list of cell index for an intra-band CA component. |

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| *SCellConfig* field descriptions |
| *adap-PosInDCI-ssbPeriodicityIndicationForScell* The starting bit position of an information block of DCI format 2\_9 for SSB burst periodicity switching of this serving cell (see TS 38.212 [17], subclause 7.3.1.3.10). |
| *adap-ssb-halfFrameIndex* Indicate whether SSB according to the adap-ssb-Periodicity is in the first half or the second half of the frame. The network configures this field according to *adap-ssb-Periodicity* such that the indicated system frame does not exceed the corresponding adaptive SSB periodicity. |
| ***adap-ssb-Periodicity*** Additional SSB burst periodicity for the Scell. If the field is absent, the UE applies the value ms5. |
| ***adap-ssb-Offset*** Indicate SFN offset from the SFN which satisfies (SFN index \*10) modulo (*adap-ssb-Periodicity*) = 0 |
| ***goodServingCellEvaluationBFD***Indicates the criterion for a UE to detect the good serving cell quality for BFD relaxation in an SCell in RRC\_CONNECTED. This field is always configured when the network enables BFD relaxation for the UE in this SCell. This field is absent if *failureDetectionSetN* is present for the SCell. |
| ***preConfGapStatus***Indicates whether the pre-configured measurement gaps (i.e. the gaps configured with *preConfigInd*) are activated or deactivated while this SCell is deactivated. If this field is configured, the UE shall apply network-controlled mechanism for activation and deactivation of the pre-configured measurement gaps, otherwise the UE shall apply the autonomous activation/deactivation mechanism, as specified in TS 38.133 [14]. The first/leftmost bit corresponds to the measurement gap with gap ID 1, the second bit corresponds to measurement gap with gap ID 2, and so on. Value 0 indicates that the corresponding pre-configured measurement gap is deactivated while value 1 indicates that the corresponding pre-configured measurement gap is activated. The UE shall ignore the bit if the corresponding measurement gap is not a pre-configured measurement gap. |
| ***sCellState***Indicates whether the SCell shall be considered to be in activated state upon SCell configuration. If the field is included for an SCell configured with TRS for fast activation of the SCell, such TRS is not used for the corresponding SCell. |
| ***secondaryDRX-GroupConfig***The field is used to indicate whether the SCell belongs to the secondary DRX group. All serving cells in the secondary DRX group shall belong to one Frequency Range and all serving cells in the default DRX group shall belong to another Frequency Range. If *drx-ConfigSecondaryGroup* is configured, the field is optionally present. The network always includes the field if the field was previously configured for this SCell and the SCell remains in the secondary DRX group. Removal of an individual SCell from the secondary DRX group is supported by using an SCell release and addition. Otherwise, if *drx-ConfigSecondaryGroup* is not configured, the field is absent and the UE shall release the field. The UE shall also release the field if *drx-ConfigSecondaryGroup* is released without including *sCellToAddModList*. |
| ***smtc***The SSB periodicity/offset/duration configuration of target cell for NR SCell addition. The network sets the *periodicityAndOffset* to indicate the same periodicity as *ssb-periodicityServingCell* in *sCellConfigCommon*. The *smtc* is based on the timing of the SpCell of associated cell group. In case of inter-RAT handover to NR, the timing reference is the NR PCell. In case of intra-NR PCell change (standalone NR) or NR PSCell change (EN-DC), the timing reference is the target SpCell. If the field is absent and *absoluteFrequencySSB* is included, the UE uses the SMTC in the *measObjectNR* having the same SSB frequency and subcarrier spacing, as configured before the reception of the RRC message. If the SCell is an SSB-less SCell (i.e., the IE *absoluteFrequencySSB* in *ServingCellConfigCommon* is absent), this field is absent. |

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| *SpCellConfig* field descriptions |
| ***deactivatedSCG-Config***Configuration applicable when the SCG is deactivated. The network always configures this field before or when indicating that the SCG is deactivated in an *RRCReconfiguration*, *RRCResume*, E-UTRA *RRCConnectionReconfiguration* or E-UTRA *RRCConnectionResume* message. |
| ***goodServingCellEvaluationBFD***Indicates the criterion for a UE to detect the good serving cell quality for BFD relaxation in the SpCell in RRC\_CONNECTED. The field is always configured when the network enables BFD relaxation for the UE in this SpCell. This field is absent if *failureDetectionSetN* is present for the SpCell. |
| ***goodServingCellEvaluationRLM***Indicates the criterion for a UE to detect the good serving cell quality for RLM relaxation in the SpCell in RRC\_CONNECTED. The field is always configured when the network enables RLM relaxation for the UE in this SpCell. |
| ***lowMobilityEvaluationConnected***Indicates the criterion for a UE to detect low mobility in RRC\_CONNECTED in an SpCell. The *s-SearchDeltaP-Connected* is the parameter "SSearchDeltaP-connected". Value *dB*3 corresponds to 3 dB, *dB*6 corresponds to 6 dB and so on. The *t-SearchDeltaP-Connected* is the parameter "TSearchDeltaP-Connected". Value *s5* means 5 seconds, value *s10* means 10 seconds and so on. Low mobility criterion is configured in NR PCell for the case of NR SA/ NR CA/ NE-DC/NR-DC, and in the NR PSCell for the case of EN-DC. |
| ***reconfigurationWithSync***Parameters for the synchronous reconfiguration to the target SpCell. |
| ***rlf-TimersAndConstants***Timers and constants for detecting and triggering cell-level radio link failure. For the SCG, *rlf-TimersAndConstants* can only be set to *setup* and is always included at SCG addition. |
| ***servCellIndex***Serving cell ID of a PSCell. The PCell of the Master Cell Group uses ID = 0. |

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| *SL-PathSwitchConfig* field descriptions |
| ***targetRelayUE-Identity***Indicates the L2 source ID of the target L2 U2N Relay UE during path switch. |
| ***t420***Indicates the timer value of *T420* to be used during path switch. |

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| *UplinkTxSwitchingMoreBands* field descriptions |
| ***uplinkTxSwitchingBandList***Indicates the NR frequency band number of the UL bands for UL Tx switching. If the UE needs to determine location of switching period as specified in TS 38.101-1 [15], the UE considers that the bands are listed in decreasing order of priority, i.e. the first/leftmost entry corresponds to the band with the highest priority, the next entry corresponds to the band with the second highest priority, and so on. The last entry corresponds the band with the lowest priority. |
| ***uplinkTxSwitchingBandPairList***Indicates the band pairs involved in UL Tx switching, as well as the per band pair configurations.  |
| ***uplinkTxSwitchingAssociatedBandDualUL-List***Indicates the associated band for the transmitting band indicated by *transmitBand* which the transmitting carrier(s) is on as specified in TS 38.214 [19], clause 6.1.6. The network ensures that each band pair of a transmitting band and an associated band supports the *dualUL* switching option. |
| ***UplinkTxSwitchingBandIndex***The value n indicates the band included at the n-th entry of *uplinkTxSwitchingBandList*. |

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| *UplinkTxSwitchingBandPairConfig* field descriptions |
| ***bandInfoUL1, bandInfoUL2***Indicates the band index for a band pair. The value n indicates the band included at the n-th entry of *uplinkTxSwitchingBandList*. |
| ***switching2T-Mode***Indicates 2Tx-2Tx switching mode is configured to the band pair.If this field is absent when uplink Tx switching is configured, it is interpreted that 1Tx-2Tx/1Tx-1Tx UL Tx switching is configured as specified in TS 38.214 [19]. |
| ***switchingOptionConfigForBandPair***Indicates the switching option for the band pair as specified in TS 38.214 [19], clause 6.1.6. |
| ***switchingPeriodConfigForBandPair***Indicates the value of switching period for the band pair as specified in TS 38.214 [19], clause 6.1.6. Value *n35us* represents 35 us, *n140us* represents 140us. If the field is absent, 210 us is applied. |

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| Conditional Presence | Explanation |
| *2Tx* | The field is optionally present, Need R, if *uplinkTxSwitching* is configured; otherwise it is absent, Need R. |
| *3Tx* | The field is optionally present, Need R, if *uplinkTxSwitching* is configured; otherwise it is absent, Need R. |
| *BWP-Reconfig* | The field is optionally present, Need N, if the BWPs are reconfigured or if serving cells are added or removed. Otherwise it is absent.  |
| *DirectToIndirect-PathSwitch* | The field is mandatory present for the L2 U2N remote UE at path switch to the target L2 U2N Relay UE (including direct to indirect path switch , single-hop indirect to single-hop indirect path switch, multi-hop indirect to single-hop indirect path switch and direct/single-hop indirect to multi-hop indirect path switch). It is absent otherwise.Note: the target L2 U2N Relay UE should not be the same as serving L2 U2N Relay UE for inter-gNB indirect to indirect path switch. |
| *LTM* | This field is optionally present, Need N, within *ltm-CandidateConfig*. It is absent otherwise. |
| *MP* | This field is optionally present, Need N, if a L2 U2N remote UE is configured to perform MP direct path addition during indirect-to-direct path swith procedure, or to perform MP direct path release during direct-to-indirect path switch procedure. It is absent otherwise. |
| *NCR* | The field is optionally present, Need M, for NCR-MT. It is absent otherwise. |
| *ODssbOnly* | The field is optionally present, Need R, when *absoluteFrequencySSB* of the serving cell is absent. It is absent otherwise. |
| *ODssbAOssb* | The field is mandatory present, when *absoluteFrequencySSB* of the serving cell is absent. It is optionally present, Need R, otherwise. |
| *PreConfigMG* | The field is optionally present, Need R, if there is at least one per UE gap configured with *preConfigInd* or there is at least one per FR gap of the same FR which the SCell belongs to and configured with *preConfigInd*. It is absent, Need R, otherwise. |
| *ReconfWithSync* | The field is mandatory present in the *RRCReconfiguration* message:- in each configured *CellGroupConfig* for which the SpCell changes,- in the *masterCellGroup:*- at change of AS security key derived from KgNB,- in an *RRCReconfiguration* message contained in a *DLInformationTransferMRDC* message,- path switch of L2 U2N remote UE to the target PCell,- path switch of L2 U2N remote UE to the target L2 U2N Relay UE,- in the *secondaryCellGroup* at:- PSCell addition,- SCG resume with NR-DC or (NG)EN-DC,- update of required SI for PSCell,- change of AS security key derived from S-KgNB in NR-DC while the UE is configured with at least one radio bearer with *keyToUse* set to *secondary* and that is not released by this *RRCReconfiguration* message,- MN handover in (NG)EN-DC.Otherwise, it is optionally present, need M. The field is absent in the *masterCellGroup* in *RRCResume* and *RRCSetup* messages and is absent in the *masterCellGroup* in *RRCReconfiguration* messages if source configuration is not released during DAPS handover. |
| *SCellAdd* | The field is mandatory present upon SCell addition; otherwise it is absent, Need M. |
| *SCellAddMod* | The field is mandatory present upon SCell addition; otherwise it is optionally present, need M. |
| *SCellAddSync* | The field is optionally present, Need N:- in the *masterCellGroup* at- SCell addition,- reconfiguration with sync,- resume of an RRC connection.- in the *secondaryCellGroup*, when the SCG is not indicated as deactivated at:- SCG activation while the SCG was previously deactivated,- SCell addition,- reconfiguration with sync.It is absent otherwise. |
| *SCG* | The field is mandatory present in an *SpCellConfig* for the PSCell. It is absent otherwise.  |
| *SCellSIB20-Opt* | This field is optionally present, Need M, if the field sCellSIB20 is configured. It is absent otherwise. |
| *SCG-Opt* | The field is optionally present, Need M, in an SpCellConfig for the PSCell. It is absent otherwise. |

NOTE: In case of change of AS security key derived from S-KgNB/S-KeNB, if *reconfigurationWithSync* is not included in the *masterCellGroup*, the network releases all existing MCG RLC bearers associated with a radio bearer with *keyToUse* set to *secondary*. In case of change of AS security key derived from KgNB/KeNB, if *reconfigurationWithSync* is not included in the *secondaryCellGroup*, the network releases all existing SCG RLC bearers associated with a radio bearer with *keyToUse* set to *master*.

*END OF CHANGES*

*START OF CHANGES*

### 6.3.3 UE capability information elements

#### – *MeasAndMobParameters*

The IE *MeasAndMobParameters* is used to convey UE capabilities related to measurements for radio resource management (RRM), radio link monitoring (RLM) and mobility (e.g. handover).

*MeasAndMobParameters* information element

-- ASN1START

-- TAG-MEASANDMOBPARAMETERS-START

MeasAndMobParameters ::= SEQUENCE {

 measAndMobParametersCommon MeasAndMobParametersCommon OPTIONAL,

 measAndMobParametersXDD-Diff MeasAndMobParametersXDD-Diff OPTIONAL,

 measAndMobParametersFRX-Diff MeasAndMobParametersFRX-Diff OPTIONAL

}

MeasAndMobParameters-v15t0 ::= SEQUENCE {

 measAndMobParametersCommon-v15t0 MeasAndMobParametersCommon-v15t0 OPTIONAL

}

MeasAndMobParameters-v1700 ::= SEQUENCE {

 measAndMobParametersFR2-2-r17 MeasAndMobParametersFR2-2-r17 OPTIONAL

}

MeasAndMobParametersCommon ::= SEQUENCE {

 supportedGapPattern BIT STRING (SIZE (22)) OPTIONAL,

 ssb-RLM ENUMERATED {supported} OPTIONAL,

 ssb-AndCSI-RS-RLM ENUMERATED {supported} OPTIONAL,

 ...,

 [[

 eventB-MeasAndReport ENUMERATED {supported} OPTIONAL,

 handoverFDD-TDD ENUMERATED {supported} OPTIONAL,

 eutra-CGI-Reporting ENUMERATED {supported} OPTIONAL,

 nr-CGI-Reporting ENUMERATED {supported} OPTIONAL

 ]],

 [[

 independentGapConfig ENUMERATED {supported} OPTIONAL,

 periodicEUTRA-MeasAndReport ENUMERATED {supported} OPTIONAL,

 handoverFR1-FR2 ENUMERATED {supported} OPTIONAL,

 maxNumberCSI-RS-RRM-RS-SINR ENUMERATED {n4, n8, n16, n32, n64, n96} OPTIONAL

 ]],

 [[

 nr-CGI-Reporting-ENDC ENUMERATED {supported} OPTIONAL

 ]],

 [[

 eutra-CGI-Reporting-NEDC ENUMERATED {supported} OPTIONAL,

 eutra-CGI-Reporting-NRDC ENUMERATED {supported} OPTIONAL,

 nr-CGI-Reporting-NEDC ENUMERATED {supported} OPTIONAL,

 nr-CGI-Reporting-NRDC ENUMERATED {supported} OPTIONAL

 ]],

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 reportAddNeighMeasForPeriodic-r16 ENUMERATED {supported} OPTIONAL,

 condHandoverParametersCommon-r16 SEQUENCE {

 condHandoverFDD-TDD-r16 ENUMERATED {supported} OPTIONAL,

 condHandoverFR1-FR2-r16 ENUMERATED {supported} OPTIONAL

 } OPTIONAL,

 nr-NeedForGap-Reporting-r16 ENUMERATED {supported} OPTIONAL,

 supportedGapPattern-NRonly-r16 BIT STRING (SIZE (10)) OPTIONAL,

 supportedGapPattern-NRonly-NEDC-r16 ENUMERATED {supported} OPTIONAL,

 maxNumberCLI-RSSI-r16 ENUMERATED {n8, n16, n32, n64} OPTIONAL,

 maxNumberCLI-SRS-RSRP-r16 ENUMERATED {n4, n8, n16, n32} OPTIONAL,

 maxNumberPerSlotCLI-SRS-RSRP-r16 ENUMERATED {n2, n4, n8} OPTIONAL,

 mfbi-IAB-r16 ENUMERATED {supported} OPTIONAL,

 dummy ENUMERATED {supported} OPTIONAL,

 nr-CGI-Reporting-NPN-r16 ENUMERATED {supported} OPTIONAL,

 idleInactiveEUTRA-MeasReport-r16 ENUMERATED {supported} OPTIONAL,

 idleInactive-ValidityArea-r16 ENUMERATED {supported} OPTIONAL,

 eutra-AutonomousGaps-r16 ENUMERATED {supported} OPTIONAL,

 eutra-AutonomousGaps-NEDC-r16 ENUMERATED {supported} OPTIONAL,

 eutra-AutonomousGaps-NRDC-r16 ENUMERATED {supported} OPTIONAL,

 pcellT312-r16 ENUMERATED {supported} OPTIONAL,

 supportedGapPattern-r16 BIT STRING (SIZE (2)) OPTIONAL

 ]],

 [[

 -- R4 19-2 Concurrent measurement gaps

 concurrentMeasGap-r17 CHOICE {

 concurrentPerUE-OnlyMeasGap-r17 ENUMERATED {supported},

 concurrentPerUE-PerFRCombMeasGap-r17 ENUMERATED {supported}

 } OPTIONAL,

 -- R4 19-1 Network controlled small gap (NCSG)

 nr-NeedForGapNCSG-Reporting-r17 ENUMERATED {supported} OPTIONAL,

 eutra-NeedForGapNCSG-Reporting-r17 ENUMERATED {supported} OPTIONAL,

 -- R4 19-1-1 per FR Network controlled small gap (NCSG)

 ncsg-MeasGapPerFR-r17 ENUMERATED {supported} OPTIONAL,

 -- R4 19-1-2 Network controlled small gap (NCSG) supported patterns

 ncsg-MeasGapPatterns-r17 BIT STRING (SIZE(24)) OPTIONAL,

 -- R4 19-1-3 Network controlled small gap (NCSG) supported NR-only patterns

 ncsg-MeasGapNR-Patterns-r17 BIT STRING (SIZE(24)) OPTIONAL,

 -- R4 19-3-2 pre-configured measurement gap

 preconfiguredUE-AutonomousMeasGap-r17 ENUMERATED {supported} OPTIONAL,

 -- R4 19-3-1 pre-configured measurement gap

 preconfiguredNW-ControlledMeasGap-r17 ENUMERATED {supported} OPTIONAL,

 handoverFR1-FR2-2-r17 ENUMERATED {supported} OPTIONAL,

 handoverFR2-1-FR2-2-r17 ENUMERATED {supported} OPTIONAL,

 -- RAN4 14-1: per-FR MG for PRS measurement

 independentGapConfigPRS-r17 ENUMERATED {supported} OPTIONAL,

 rrm-RelaxationRRC-ConnectedRedCap-r17 ENUMERATED {supported} OPTIONAL,

 -- R4 25-3: Parallel measurements with multiple measurement gaps

 parallelMeasurementGap-r17 ENUMERATED {n2} OPTIONAL,

 condHandoverWithSCG-NRDC-r17 ENUMERATED {supported} OPTIONAL,

 gNB-ID-LengthReporting-r17 ENUMERATED {supported} OPTIONAL,

 gNB-ID-LengthReporting-ENDC-r17 ENUMERATED {supported} OPTIONAL,

 gNB-ID-LengthReporting-NEDC-r17 ENUMERATED {supported} OPTIONAL,

 gNB-ID-LengthReporting-NRDC-r17 ENUMERATED {supported} OPTIONAL,

 gNB-ID-LengthReporting-NPN-r17 ENUMERATED {supported} OPTIONAL

 ]],

 [[

 -- R4 25-1: Parallel measurements on multiple SMTC-s for a single frequency carrier

 parallelSMTC-r17 ENUMERATED {n4} OPTIONAL,

 -- R4 19-2-1 Concurrent measurement gaps for EUTRA

 concurrentMeasGapEUTRA-r17 ENUMERATED {supported} OPTIONAL,

 serviceLinkPropDelayDiffReporting-r17 ENUMERATED {supported} OPTIONAL,

 -- R4 19-1-4 Network controlled small gap (NCSG) performing measurement based on flag deriveSSB-IndexFromCellInter

 ncsg-SymbolLevelScheduleRestrictionInter-r17 ENUMERATED {supported} OPTIONAL

 ]],

 [[

 eventD1-MeasReportTrigger-r17 ENUMERATED {supported} OPTIONAL,

 independentGapConfig-maxCC-r17 SEQUENCE {

 fr1-Only-r17 INTEGER (1..32) OPTIONAL,

 fr2-Only-r17 INTEGER (1..32) OPTIONAL,

 fr1-AndFR2-r17 INTEGER (1..32) OPTIONAL

 } OPTIONAL

 ]],

 [[

 interSatMeas-r17 ENUMERATED {supported} OPTIONAL,

 deriveSSB-IndexFromCellInterNon-NCSG-r17 ENUMERATED {supported} OPTIONAL

 ]],

 [[

 -- R4 31-1 Enhanced L3 measurement reporting for unknown SCell activation if the valid L3 measurement results are available

 l3-MeasUnknownSCellActivation-r18 ENUMERATED {supported} OPTIONAL,

 -- R4 31-3 Shorter measurement interval for unknown SCell activation

 shortMeasInterval-r18 ENUMERATED {supported} OPTIONAL,

 nr-NeedForInterruptionReport-r18 ENUMERATED {supported} OPTIONAL,

 measSequenceConfig-r18 ENUMERATED {supported} OPTIONAL,

 cellIndividualOffsetPerMeasEvent-r18 ENUMERATED {supported} OPTIONAL,

 eventD2-MeasReportTrigger-r18 ENUMERATED {supported} OPTIONAL,

 -- R4 32-1: Concurrent gaps with Pre-MG in a FR

 concurrentMeasGapsPreMG-r18 ENUMERATED {supported} OPTIONAL,

 -- R4 32-2: Support for dynamic collisions

 dynamicCollision-r18 ENUMERATED {supported} OPTIONAL,

 -- R4 32-3: Concurrent gaps with NCSG in a FR

 concurrentMeasGapsNCSG-r18 ENUMERATED {supported} OPTIONAL,

 -- R4 32-4: Inter-RAT EUTRAN measurements without gap and outside active DL BWP

 eutra-NoGapMeasurementOutsideBWP-r18 ENUMERATED {supported} OPTIONAL,

 -- R4 32-5: Inter-RAT EUTRAN measurement without gap and within active DL BWP

 eutra-NoGapMeasurementInsideBWP-r18 ENUMERATED {supported} OPTIONAL,

 -- R4 32-6: Effective measurement window for inter-RAT EUTRAN measurements

 eutra-MeasEMW-r18 BIT STRING (SIZE(6)) OPTIONAL,

 -- R4 32-7: Simultaneous reception of NR data and EUTRAN CRS with different numerology

 concurrentMeasCRS-InsideBWP-EUTRA-r18 ENUMERATED {supported} OPTIONAL,

 -- R4 39-2a: SSB based inter-frequency L1-RSRP measurements with measurement gaps

 ltm-InterFreqMeasGap-r18 ENUMERATED {supported} OPTIONAL,

 dummy-ltm-FastUE-Processing-r18 SEQUENCE {

 fr1-r18 ENUMERATED {ms10, ms15},

 fr2-r18 ENUMERATED {ms10, ms15},

 fr1-AndFR2-r18 ENUMERATED {ms20, ms30}

 } OPTIONAL,

 rach-LessHandoverInterFreq-r18 ENUMERATED {supported} OPTIONAL,

 enterAndLeaveCellReport-r18 ENUMERATED {supported} OPTIONAL,

 bestCellChangeReport-r18 ENUMERATED {supported} OPTIONAL,

 secondBestCellChangeReport-r18 ENUMERATED {supported} OPTIONAL

 ]],

 [[

 ltm-InterFreq-r18 ENUMERATED {supported} OPTIONAL,

 ltm-MCG-NRDC-r18 ENUMERATED {supported} OPTIONAL,

 ltm-RACH-LessDG-r18 ENUMERATED {supported} OPTIONAL,

 ltm-RACH-LessCG-r18 ENUMERATED {supported} OPTIONAL,

 ltm-Recovery-r18 ENUMERATED {supported} OPTIONAL,

 ltm-ReferenceConfig-r18 ENUMERATED {supported} OPTIONAL,

 ltm-MCG-NRDC-Release-r18 ENUMERATED {supported} OPTIONAL,

 -- R4 39-7: Faster UE processing time during cell switch

 ltm-FastUE-Processing-r18 SEQUENCE {

 fr1-r18 ENUMERATED {ms10, ms15} OPTIONAL,

 fr2-r18 ENUMERATED {ms10, ms15} OPTIONAL,

 fr1-AndFR2-r18 ENUMERATED {ms20, ms30} OPTIONAL

 } OPTIONAL,

 ntn-NeighbourCellInfoSupport-r18 ENUMERATED {supported} OPTIONAL

 ]],

 [[

 ltm-interFreqL1-OnlyInBC-r18 ENUMERATED {supported} OPTIONAL

 ]],

 [[

 ltm-KeyUpdateMCG-r19 ENUMERATED {supported} OPTIONAL,

 ltm-KeyUpdateSCG-r19 ENUMERATED {supported} OPTIONAL,

 cltm-EarlyTA-Indication-r19 INTEGER (1..8) OPTIONAL,

 cltm-ExecutionConditionL1-r19 ENUMERATED {supported} OPTIONAL,

 cltm-ExecutionConditionL3-r19 INTEGER (1..2) OPTIONAL,

 ltm-EventMeasAndReport-r19 ENUMERATED {supported} OPTIONAL,

 ltm-RecoveryWithKeyUpdate-r19 ENUMERATED {supported} OPTIONAL,

 -- R4 49-1: Simultaneous L3 measurement on three carriers for measurements without measurement gap under CA/DC operation

 threeCarrierMeasWithoutGap-r19 SEQUENCE {

 fr1-CA-NR-DC-r19 ENUMERATED {supported} OPTIONAL,

 fr1-FR2-CA-r19 ENUMERATED {supported} OPTIONAL,

 fr1-FR2-NR-DC-r19 ENUMERATED {supported} OPTIONAL

 } OPTIONAL,

 -- R4 49-3: L3 serving cell and neighbor cells measurement and report on one serving carrier per-band for

 -- intra-frequency measurements without measurement gap

 multiCarrierSingleReportWithoutGap-r19 ENUMERATED {supported} OPTIONAL,

 -- R4 52-3: Skip SSB based L1-RSRP measurement for candidate cell CSI-RS-based L1-RSRP measurement

 skipSSB-L1-RSRP-Meas-r19 ENUMERATED {neighbour, both} OPTIONAL,

 gapOccasionCancelRatioReport-r19 ENUMERATED {supported} OPTIONAL,

 twoSMTC-Periodicities-r19 ENUMERATED {supported} OPTIONAL,

 reportClosestReferenceLocations-r19 ENUMERATED {supported} OPTIONAL,

 nr-CGI-Reporting-HSDN-r19 ENUMERATED {supported} OPTIONAL,

 eutra-CGI-Reporting-HSDN-r19 ENUMERATED {supported} OPTIONAL,

 ltm-SR-ResourcesInCellSwitchCommand-r19 ENUMERATED {supported} OPTIONAL

 ]]

}

MeasAndMobParametersCommon-v15t0 ::= SEQUENCE {

 intraF-NeighMeasForSCellWithoutSSB ENUMERATED{supported} OPTIONAL

}

MeasAndMobParametersXDD-Diff ::= SEQUENCE {

 intraAndInterF-MeasAndReport ENUMERATED {supported} OPTIONAL,

 eventA-MeasAndReport ENUMERATED {supported} OPTIONAL,

 ...,

 [[

 handoverInterF ENUMERATED {supported} OPTIONAL,

 handoverLTE-EPC ENUMERATED {supported} OPTIONAL,

 handoverLTE-5GC ENUMERATED {supported} OPTIONAL

 ]],

 [[

 sftd-MeasNR-Neigh ENUMERATED {supported} OPTIONAL,

 sftd-MeasNR-Neigh-DRX ENUMERATED {supported} OPTIONAL

 ]],

 [[

 dummy ENUMERATED {supported} OPTIONAL

 ]]

}

MeasAndMobParametersFRX-Diff ::= SEQUENCE {

 ss-SINR-Meas ENUMERATED {supported} OPTIONAL,

 csi-RSRP-AndRSRQ-MeasWithSSB ENUMERATED {supported} OPTIONAL,

 csi-RSRP-AndRSRQ-MeasWithoutSSB ENUMERATED {supported} OPTIONAL,

 csi-SINR-Meas ENUMERATED {supported} OPTIONAL,

 csi-RS-RLM ENUMERATED {supported} OPTIONAL,

 ...,

 [[

 handoverInterF ENUMERATED {supported} OPTIONAL,

 handoverLTE-EPC ENUMERATED {supported} OPTIONAL,

 handoverLTE-5GC ENUMERATED {supported} OPTIONAL

 ]],

 [[

 maxNumberResource-CSI-RS-RLM ENUMERATED {n2, n4, n6, n8} OPTIONAL

 ]],

 [[

 simultaneousRxDataSSB-DiffNumerology ENUMERATED {supported} OPTIONAL

 ]],

 [[

 nr-AutonomousGaps-r16 ENUMERATED {supported} OPTIONAL,

 nr-AutonomousGaps-ENDC-r16 ENUMERATED {supported} OPTIONAL,

 nr-AutonomousGaps-NEDC-r16 ENUMERATED {supported} OPTIONAL,

 nr-AutonomousGaps-NRDC-r16 ENUMERATED {supported} OPTIONAL,

 dummy ENUMERATED {supported} OPTIONAL,

 cli-RSSI-Meas-r16 ENUMERATED {supported} OPTIONAL,

 cli-SRS-RSRP-Meas-r16 ENUMERATED {supported} OPTIONAL,

 interFrequencyMeas-NoGap-r16 ENUMERATED {supported} OPTIONAL,

 simultaneousRxDataSSB-DiffNumerology-Inter-r16 ENUMERATED {supported} OPTIONAL,

 idleInactiveNR-MeasReport-r16 ENUMERATED {supported} OPTIONAL,

 -- R4 6-2: Support of beam level Early Measurement Reporting

 idleInactiveNR-MeasBeamReport-r16 ENUMERATED {supported} OPTIONAL

 ]],

 [[

 increasedNumberofCSIRSPerMO-r16 ENUMERATED {supported} OPTIONAL

 ]]

}

MeasAndMobParametersFR2-2-r17 ::= SEQUENCE {

 handoverInterF-r17 ENUMERATED {supported} OPTIONAL,

 handoverLTE-EPC-r17 ENUMERATED {supported} OPTIONAL,

 handoverLTE-5GC-r17 ENUMERATED {supported} OPTIONAL,

 idleInactiveNR-MeasReport-r17 ENUMERATED {supported} OPTIONAL,

...

}

-- TAG-MEASANDMOBPARAMETERS-STOP

-- ASN1STOP

*END OF CHANGES*