**3GPP TSG-RAN WG2 Meeting #125 *R2-2401591***

**Athens, Greece, 26th Feburuary– 1st March 2024**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.304** | **CR** | **0376** | **rev** | **1** | **Current version:** | **18.0.0** |  |
|  |
| *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:***  | Miscellaneous Corrections for NTN in 38.304 |
|  |  |
| ***Source to WG:*** | ZTE Corporation, Sanechips  |
| ***Source to TSG:*** | RAN2 |
|  |  |
| ***Work item code:*** | NR\_NTN\_enh-Core |  | ***Date:*** | 2024-02-28 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-18 |
|  | *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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | 1. The definition of earth moving cell is missing.
2. Introduction of abbreviation of VSAT.
3. Change the information element to italics to align with others in 38.304.
4. Editorial change on the parameter description for tn-AreaIdList.
5. Introduction of cell bar for fixed and mobile VSAT.
 |
|  |  |
| ***Summary of change:*** | 1. Add definition of earth moving cell.
2. Introduction of abbreviation of VSAT.
3. Change the information element to italics to align with others in 38.304.
4. Editorial change on the parameter description for tn-AreaIdList.
5. Introduction of cell bar for fixed and mobile VSAT.

**Impact analysis**Impacted 5G architecture options:NR SA Impacted functionality:NR NTN Inter-operability issues:No inter-operability issue is foreseen. |
|  |  |
| ***Consequences if not approved:*** | The definition of earth moving cell is missing.The format of some NTN specific information elements is not aligned with other information elements in 38.304. |
|  |  |
| ***Clauses affected:*** | 5.3.1, 5.4.2 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  |  |
| ***affected:*** |  | **X** |  Test specifications |  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications |  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

*START OF CHANGE*

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

**Acceptable Cell:** A cell that satisfies certain conditions as specified in 4.5.

**Allowed CAG list:** A per-PLMN list of CAG Identifiers the UE is allowed to access (see TS 23.501 [10])**.**

**Available PLMN(s):** One or more PLMN(s) for which the UE has found at least one cell and read its PLMN identity(ies).

**Available SNPN(s):** One or more SNPN(s) for which the UE has found at least one cell and read its SNPN identity(ies).

**Barred Cell**: A cell a UE is not allowed to camp on.

**CAG cell**: A cell broadcasting at least one Closed Access Group Identifier.

**Camped on a cell:** UE has completed the cell selection/reselection process and has chosen a cell. The UE monitors system information and (in most cases) paging information.

**Camped on any cell**: UE is in idle mode and has completed the cell selection/reselection process and has chosen a cell irrespective of PLMN identity.

**Closed Access Group Identifier**: Identifier of a CAG within a PLMN.

**Commercial Mobile Alert System:** Public Warning System that delivers *Warning Notifications* provided by *Warning Notification Providers* to CMAS capable UEs.

**Earth-moving cell**: An NTN cell moving on the ground. This can be provisioned by beam(s) whose coverage area slides over the Earth surface (e.g., the case of NGSO satellites generating fixed or non-steerable beams).

**eCall Only Mode:** A UE configuration option that allows the UE to register at 5GC and register in IMS to perform only eCall Over IMS, and a non-emergencyIMS call for test and/or terminal reconfiguration services.

**EHPLMN:** Any of the PLMN entries contained in the Equivalent HPLMN list TS 23.122 [9].

**Equivalent PLMN list:** List of PLMNs considered as equivalent by the UE for cell selection, cell reselection, and handover according to the information provided by the NAS.

**Equivalent SNPN list:** List of SNPNs considered as equivalent by the UE for cell selection, cell reselection, and handover according to the information provided by the NAS.

**eRedCap UE:** A UE with enhanced reduced capabilities as specified in clause 4.2.22 in TS 38.306 [24].

**Home PLMN:** A PLMN where the Mobile Country Code (MCC) and Mobile Network Code (MNC) of the PLMN identity are the same as the MCC and MNC of the IMSI.

**HSDN cell**: A cell that has higher priority than other cells for cell reselection for HSDN capable UE in a High-mobility state.

**Mobile-IAB cell**: As defined in TS 38.300 [2].

**Network Identifier**: Identifier of an SNPN in combination with a PLMN ID (TS 23.501 [10]).

**Non-Public Network:** A network deployed for non-public use, as defined in TS 22.261 [12].

**Non-terrestrial network**: An NG-RAN consisting of gNBs, which provides non-terrestrial NR access to UEs by means of an NTN payload embarked on an airborne or space-borne NTN vehicle and an NTN Gateway.

**NR sidelink communication**: AS functionality enabling at least V2X Communication as defined in TS 23.287 [16], and ProSe communication (including ProSe non-Relay, UE-to-Network Relay communication and, UE-to-UE Relay communication including UE-to-UE Relay communication with integrated discovery) as defined in TS 23.304 [22], between two or more nearby UEs, using NR technology but not traversing any network node.

**NR sidelink discovery**: AS functionality enabling ProSe non-Relay Discovery, ProSe UE-to-Network Relay discovery and ProSe UE-to-UE Relay discovery for Proximity based Services as defined in TS 23.304 [22] between two or more nearby UEs, using NR technology but not traversing any network node.

**Process:** A local action in the UE invoked by an RRC procedure or an RRC\_IDLE or RRC\_INACTIVE state procedure.

**Quasi-earth fixed cell:** An NTN cell fixed with respect to a certain geographic area on the earth during a certain time duration. This can be provisioned by beam(s) covering one geographic area for a limited period and a different geographic area during another period (e.g., the case of NGSO satellites generating steerable beams).

**Radio Access Technology:** Type of technology used for radio access, for instance NR or E-UTRA.

**Ranging/Sidelink Positioning:** AS functionality enabling ranging-based services and sidelink positioning as defined in TS 23.586 [25].

**RedCap UE:** A UE with reduced capabilities as specified in clause 4.2.21 in TS 38.306 [24].

**Registration Area**: (NAS) registration area is an area in which the UE may roam without a need to perform location registration, which is a NAS procedure.

**Registered PLMN:** This is the PLMN on which certain Location Registration outcomes have occurred, as specified in TS 23.122 [9].

**Registered SNPN**: This is the SNPN on which certain Location Registration outcomes have occurred, as specified in TS 23.122 [9].

**Reserved Cell**: A cell on which camping is not allowed, except for particular UEs, if so indicated in the system information.

**Selected PLMN:** This is the PLMN that has been selected by the NAS, either manually or automatically.

**Selected SNPN**: This is the SNPN that has been selected by the NAS, either manually or automatically.

**Serving cell:** The cell on which the UE is camped.

**Sidelink:** UE to UE interface for V2X sidelink communication defined in TS 23.287[16].

**SNPN Access Mode:** Mode of operation wherein UE only selects SNPNs (as defined in TS 23.501 [10]).

**SNPN identity**: An identifier of an SNPN comprising of a PLMN ID and an NID combination.

**Strongest cell:** The cell on a particular frequency that is considered strongest according to the layer 1 cell search procedure (TS 38.213 [4], TS 38.215 [11]).

**Suitable Cell:** This is a cell on which a UE may camp. For NR cell, the criteria are defined in clause 4.5, for E-UTRA cell in TS 36.304 [7].

**U2N Relay UE:** a UE that provides functionality to support connectivity to the network for U2N Remote UE(s).

**U2N Remote UE:** a UE that communicates with the network via a U2N Relay UE.

**U2U Relay UE:** a UE that provides functionality to support connectivity for U2U Remote UE(s).

**U2U Remote UE:** a UE that communicates with other UE(s) via a U2U Relay UE.

*NEXT CHANGE*

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [1].

[partially omitted]

VSAT Very Small Aperture Terminal

V2X Vehicle to Everything

*NEXT CHANGE*

5.2.4.2 Measurement rules for cell re-selection

Following rules are used by the UE to limit needed measurements:

- If the serving cell fulfils Srxlev> SIntraSearchP and Squal > SIntraSearchQ:

- If *distanceThresh* and *referenceLocation* are broadcasted in *SIB19*, and if UE supports location-based measurement initiation for NTN quasi-Earth-fixed system and has obtained its location information:

- If the distance between UE and the serving cell reference location *referenceLocation* is shorter than *distanceThresh*, the UE may not perform intra-frequency measurements;

- Else, the UE shall perform intra-frequency measurements;

- else if *distanceThresh* and *movingReferenceLocation* are broadcasted in *SIB19*, and if UE supports location-based measurement initiation for NTN Earth-moving system and has obtained its location information:

- if the distance between UE's location and the serving cell reference location determined based on *movingReferenceLocation* is shorter than *distanceThresh*, the UE may not perform intra-frequency measurements;

- else, the UE shall perform intra-frequency measurements;

- Else, the UE may not perform intra-frequency measurements;

- Else, the UE shall perform intra-frequency measurements.

- The UE shall apply the following rules for NR inter-frequencies and inter-RAT frequencies which are indicated in system information and for which the UE has priority provided as defined in 5.2.4.1:

- For a NR inter-frequency or inter-RAT frequency with a reselection priority higher than the reselection priority of the current NR frequency, the UE shall perform measurements of higher priority NR inter-frequency or inter-RAT frequencies according to TS 38.133 [8].

- For a NR inter-frequency with an equal or lower reselection priority than the reselection priority of the current NR frequency and for inter-RAT frequency with lower reselection priority than the reselection priority of the current NR frequency:

- If the serving cell fulfils Srxlev > SnonIntraSearchP and Squal > SnonIntraSearchQ:

- If *distanceThresh* and *referenceLocation* are broadcasted in *SIB19*, and if UE supports location-based measurement initiation for NTN quasi-Earth-fixed system and has obtained its UE location information:

- If the distance between UE and the serving cell reference location *referenceLocation* is shorter than *distanceThresh*, the UE may choose not to perform measurements of NR inter-frequency cells of equal or lower priority, or inter-RAT frequency cells of lower priority;

- Else, the UE shall perform measurements of NR inter-frequency cells of equal or lower priority, or inter-RAT frequency cells of lower priority according to TS 38.133 [8];

- else if *distanceThresh* and *movingReferenceLocation* are broadcasted in *SIB19*, and if UE supports location-based measurement initiation for NTN Earth-moving system and has obtained its location information:

- if the distance between UE's location and the serving cell reference location determined based on *movingReferenceLocation* is shorter than *distanceThresh*, the UE may not perform measurements of NR inter-frequency cells of equal or lower priority, or inter-RAT frequency cells of lower priority;

- else, the UE shall perform measurements of NR inter-frequency cells of equal or lower priority, or inter-RAT frequency cells of lower priority according to TS 38.133 [8];

- Else, the UE may choose not to perform measurements of NR inter-frequency cells of equal or lower priority, or inter-RAT frequency cells of lower priority;

- Else,the UE shall perform measurements of NR inter-frequency cells of equal or lower priority, or inter-RAT frequency cells of lower priority according to TS 38.133 [8].

- If the UE supports relaxed measurement and *relaxedMeasurement* is present in *SIB2*, the UE may further relax the needed measurements, as specified in clause 5.2.4.9.

- For UE camping on NTN cell, if the UE supports skipping TN measurement, and the UE has obtained its location information, and if *coverageAreaInfoList* and *tn-AreaIdList* are broadcast in system information, the UE may not perform measurements of a TN frequency when UE is not in the coverage of that frequency provided via *tn-AreaIdList*, regardless of the frequency priority.

If the *t-Service* of the serving cell is present in *SIB19,* and if UE supports time-based measurement initiation, the UE shall perform intra-frequency, inter-frequency or inter-RAT measurements before the *t-Service*, regardless of the distance between UE and the serving cell reference location or whether the serving cell fulfils Srxlev > SIntraSearchP and Squal > SIntraSearchQ, or Srxlev > SnonIntraSearchP and Squal > SnonIntraSearchQ, The exact time to start measurement before *t-Service* is up to UE implementation. UE shall perform measurements of higher priority NR inter-frequency or inter-RAT frequencies according to TS 38.133 [8] regardless of the remaining service time of the serving cell (i.e. time remaining until *t-Service*).

NOTE 1: When evaluating the distance between UE and the serving cell reference location, it's up to UE implementation to obtain UE location information.

NOTE 2: In the Earth-moving system, it's up to UE implementation to maintain a valid serving cell reference location, which is derived based on the serving satellite ephemeris, *epochTime* and *movingReferenceLocation*.

*NEXT CHANGE*

5.2.4.7.0 General reselection parameters

Cell reselection parameters are broadcast in system information and are read from the serving cell as follows:

**absThreshSS-BlocksConsolidation**

This specifies the minimum threshold for beams which can be used for selection of the highest ranked cells, if *rangeToBestCell* is configured, and for beams used for derivation of cell measurement quantity. The parameter in *SIB2* applies to the current serving frequency and the parameter in *SIB4* applies to the corresponding inter-frequency.

**cellReselectionPriority**

This specifies the absolute priority for NR frequency or E-UTRAN frequency.

**cellReselectionSubPriority**

This specifies the fractional priority value added to cellReselectionPriority for NR frequency or E-UTRAN frequency.

**combineRelaxedMeasCondition**

This indicates when the UE needs to fulfil both low mobility criterion and not-at-cell-edge criterion to determine whether to relax measurement requirements.

**combineRelaxedMeasCondition2**

This indicates when an (e)RedCap UE needs to fulfil both stationary criterion and not-at-cell-edge criterion to determine whether to relax measurement requirements.

**coverageAreaInfoList**

This indicates a list of TN coverage areas to assist skipping TN measurements for NTN UEs in RRC\_IDLE and RRC\_INACTIVE states.

**distanceThresh**

This indicates the distance threshold from the serving cell reference location to be used in location-based measurement initiation.

**movingReferenceLocation**

This indicates the reference location of the serving cell at a time reference, to be used in location-based measurement initiation for NTN Earth-moving system.

**nrofSS-BlocksToAverage**

This specifies the number of beams which can be used for selection of the highest ranked cell, if *rangeToBestCell* is configured, and the number of beams used for derivation of cell measurement quantity. The parameter in *SIB2* applies to the current serving frequency and the parameter in *SIB4* applies to the corresponding inter-frequency.

**Qoffsets,n**

This specifies the offsetbetween the two cells.

**Qoffsetfrequency**

Frequency specific offset for equal priority NR frequencies.

**Qhyst**

This specifies the hysteresis value for ranking criteria.

**Qoffsettemp**

This specifies the additional offset to be used for cell selection and re-selection. It is temporarily used in case the RRC Connection Establishment fails on the cell as specified in TS 38.331 [3].

**Qqualmin**

This specifies the minimum required quality level in the cell in dB.

**Qrxlevmin**

This specifies the minimum required Rx level in the cell in dBm.

**Qrxlevminoffsetcell**

This specifies the cell specific Rx level offset in dB to Qrxlevmin.

**Qqualminoffsetcell**

This specifies the cell specific quality level offset in dB to Qqualmin.

**rangeToBestCell**

This specifies the R value range which the cells whose R value is within the range can be a candidate for the highest ranked cell. It is configured in SIB2 and used for intra-frequency and equal priority inter-frequency cell reselection and among the cells on the highest priority frequency(ies) for inter-frequency cell reselection within NR.

**referenceLocation**

This indicates the reference location of the serving cell to be used in location-based measurement initiation for NTN (quasi-)Earth-fixed system.

**SIntraSearchP**

This specifies the Srxlev threshold (in dB) for intra-frequency measurements.

**SIntraSearchQ**

This specifies the Squal threshold (in dB) for intra-frequency measurements.

**SnonIntraSearchP**

This specifies the Srxlev threshold (in dB) for NR inter-frequency and inter-RAT measurements.

**SnonIntraSearchQ**

This specifies the Squal threshold (in dB) for NR inter-frequency and inter-RAT measurements.

**SSearchDeltaP**

This specifies the threshold (in dB) on Srxlev variation for relaxed measurement.

**SSearchDeltaP-Stationary**

This specifies the threshold (in dB) on Srxlev variation to evaluate stationary criterion for relaxed measurement.

**SSearchThresholdP**

This specifies the Srxlev threshold (in dB) for relaxed measurement.

**SSearchThresholdP2**

This specifies the Srxlev threshold (in dB) to evaluate not-at-cell-edge-criterion for relaxed measurement.

**SSearchThresholdQ**

This specifies the Squal threshold (in dB) for relaxed measurement.

**SSearchThresholdQ2**

This specifies the Squal threshold (in dB) to evaluate not-at-cell-edge-criterion for relaxed measurement.

**TreselectionRAT**

This specifies the cell reselection timer value. For each target NR frequency and for each RAT other than NR, a specific value for the cell reselection timer is defined, which is applicable when evaluating reselection within NR or towards other RAT (i.e. TreselectionRAT for NR is TreselectionNR, for E-UTRAN TreselectionEUTRA).

NOTE: TreselectionRAT is not broadcast in system information but used in reselection rules by the UE for each RAT.

**TreselectionNR**

This specifies the cell reselection timer value TreselectionRAT for NR. The parameter can be set per NR frequency as specified in TS 38.331 [3].

**TreselectionEUTRA**

This specifies the cell reselection timer value TreselectionRAT for E-UTRAN.

**ThreshX, HighP**

This specifies the Srxlev threshold (in dB) used by the UE when reselecting towards a higher priority RAT/ frequency than the current serving frequency. Each frequency of NR and E-UTRAN might have a specific threshold.

**ThreshX, HighQ**

This specifies the Squal threshold (in dB) used by the UE when reselecting towards a higher priority RAT/ frequency than the current serving frequency. Each frequency of NR and E-UTRAN might have a specific threshold.

**ThreshX, LowP**

This specifies the Srxlev threshold (in dB) used by the UE when reselecting towards a lower priority RAT/ frequency than the current serving frequency. Each frequency of NR and E-UTRAN might have a specific threshold.

**ThreshX, LowQ**

This specifies the Squal threshold (in dB) used by the UE when reselecting towards a lower priority RAT/ frequency than the current serving frequency. Each frequency of NR and E-UTRAN might have a specific threshold.

**ThreshServing, LowP**

This specifies the Srxlev threshold (in dB) used by the UE on the serving cell when reselecting towards a lower priority RAT/ frequency.

**ThreshServing, LowQ**

This specifies the Squal threshold (in dB) used by the UE on the serving cell when reselecting towards a lower priority RAT/ frequency.

**TSearchDeltaP**

This specifies the time period over which the Srxlev variation is evaluated forrelaxed measurement.

**TSearchDeltaP-Stationary**

This specifies the time period over which the Srxlev variation is evaluated for stationary criterion forrelaxed measurement.

**t-Service**

This indicates the time when an NTN cell is going to stop serving the area where it is currently covering, to be used in time-based measurement initiation.

**tn-AreaIdList**

This indicates a list of TN area identities associated with each frequency to assist skipping TN measurements for NTN UEs in RRC\_IDLE and RRC\_INACTIVE states. Each TN area identity in the list identifies a TN coverage area.

*NEXT CHANGE*

### 5.3.1 Cell status and cell reservations

Cell status and cell reservations are indicated in the *MIB or SIB1* message as specified in TS 38.331 [3] by means of following fields:

- *cellBarred* (IE type: "barred" or "not barred")
Indicated in *MIB* message. In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is common for all PLMNs and NPNs. This field is ignored by UEs supporting NTN while *cellBarredNTN* is included in SIB1.

*- cellBarredATG* (IE type: "barred" or "not barred")
Indicated in SIB1 message. In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is common for all PLMNs and NPNs. This field is only applicable to ATG UEs.

- *cellBarred-eRedCap1Rx* (IE type: "barred" or "not barred")
Indicated in *SIB1* message. In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is common for all PLMNs and NPNs. This field is only applicable to eRedCap UEs.

- *cellBarred-eRedCap2Rx* (IE type: "barred" or "not barred")
Indicated in *SIB1* message. In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is common for all PLMNs and NPNs. This field is only applicable to eRedCap UEs.

- *cellBarredFixedVSAT* (IE type: "barred" or "not barred")
Indicated in *SIB1* message. In case of multiple PLMNs indicated in *SIB1*, this field is common for all PLMNs. This field is only applicable to VSAT UEs using NTN access.

- *cellBarredMobileVSAT* (IE type: "barred" or "not barred")
Indicated in *SIB1* message. In case of multiple PLMNs indicated in *SIB1*, this field is common for all PLMNs. This field is only applicable to VSAT UEs using NTN access.

- *cellBarredNES* (IE type: "not barred")
Indicated in *SIB1* message. In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is common for all PLMNs and NPNs. This field is only applicable to UEs capable of NES cell DTX/DRX.

- *cellBarredNTN* (IE type: "barred" or "not barred")
Indicated in SIB1 message. In case of multiple PLMNs indicated in *SIB1*, this field is common for all PLMNs. This field is ignored if the UE does not support NTN connectivity.

- *cellBarredRedCap1Rx* (IE type: "barred" or "not barred")
Indicated in *SIB1* message. In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is common for all PLMNs and NPNs. This field is only applicable to RedCap UEs.

- *cellBarredRedCap2Rx* (IE type: "barred" or "not barred")
Indicated in *SIB1* message. In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is common for all PLMNs and NPNs. This field is only applicable to RedCap UEs.

- *cellReservedForOperatorUse* (IE type: "reserved" or "not reserved")
Indicated in *SIB1* message*.* In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is specified per PLMN or per SNPN.

- *cellReservedForOtherUse* (IE type: "true")
Indicated in *SIB1* message. In case of multiple PLMNs indicated in *SIB1*, this field is common for all PLMNs.

*- cellReservedForFutureUse* (IE type: "true")
Indicated in *SIB1* message. In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is common for all PLMNs and NPNs.

NOTE 0: IAB-MT ignores the *cellBarred*, *cellReservedForOperatorUse, cellReservedForFutureUse,* and *intraFreqReselection* (i.e. treats *intraFreqReselection* as if it was set to *allowed*) as defined in TS 38.331 [3]. IAB-MT also ignores *cellReservedForOtherUse* for cell barring determination (i.e. NPN capable IAB-MT considers *cellReservedForOtherUse* for determination of an NPN-only cell) as defined in TS 38.331 [3].

NOTE 0a: NCR-MT ignores the *cellBarred*, *cellReservedForOperatorUse, cellReservedForFutureUse,* and *intraFreqReselection* (i.e. treats *intraFreqReselection* as if it was set to *allowed*) as defined in TS 38.331 [3]. NCR-MT also ignores *cellReservedForOtherUse* for cell barring determination (i.e. NPN capable NCR-MT considers *cellReservedForOtherUse* for determination of an NPN-only cell) as defined in TS 38.331 [3].

- *halfDuplexRedCapAllowed* (IE type: "true")
Indicated in *SIB1* message. In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is common for all PLMNs and NPNs. This field is only applicable to (e)RedCap UEs.

- *iab-Support* (IE type: "true")
Indicated in *SIB1* message. In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is specified per PLMN or per SNPN.

- *ncr-Support* (IE type: "true")

Indicated in *SIB1* message. In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is common for all PLMNs and NPNs.

- *mobileIAB-Support* (IE type: "true")

Indicated in *SIB1* message. In case of multiple PLMNs or NPNs indicated in *SIB1*, this field is specified per PLMN or per SNPN.

When cell status is indicated as "not barred" and "not reserved" for operator use and not "true" for other use and not "true" for future use,

- UEs shall treat this cell as candidate during the cell selection and cell reselection procedures.

When cell broadcasts any CAG-IDs or NIDs and the cell status is indicated as "not barred" and "not reserved" for operator use and "true" for other use, and not "true" for future use:

- All NPN-capable UEs shall treat this cell as candidate during the cell selection and cell reselection procedures, other UEs shall treat this cell as if cell status is "barred".

When cell status is indicated as "true" for other use, and either cell does not broadcast any CAG-IDs or NIDs or does not broadcast any CAG-IDs and the UE is not operating in SNPN Access Mode,

- The UE shall treat this cell as if cell status is "barred".

When cell status is indicated as "true" for future use,

- The UE shall treat this cell as if cell status is "barred".

When *cellBarredNES* is absent and *cellBarred* is set to"barred",

- The UE capable of NES cell DTX/DRX shall treat this cell as if cell status is "barred".

When *cellBarredNTN* is not broadcast in this cell,

- For NTN access, the UE shall treat this cell as if cell status is "barred".

When *halfDuplexRedCapAllowed* is not broadcast in this cell,

- The (e)RedCap UE only capable of operating in half-duplex for FDD shall treat this cell as if cell status is "barred".

When *cellBarredATG* is not broadcast in this cell,

- For ATG access, the UE shall treat this cell as if cell status is "barred".

When *cellBarredFixedVSAT* is not broadcast in this cell,

- For NTN access, the fixed VSAT UE shall treat this cell as if cell status is "barred".

When *cellBarredMobileVSAT* is not broadcast in this cell,

- For NTN access, the mobile VSAT UE shall treat this cell as if cell status is "barred".

*End OF CHANGE*