**3GPP TSG-RAN WG3 Meeting #128 *R3-253857***

**Malta, MT, 19 – 23 May, 2025**

**Title:** (TP to BLCR for TS 38.473) Discussion on on-demand SIB1 for UEs in idle or inactive mode

**Source:** Huawei, Ericsson, NEC, Qualcomm, CATT, Nokia, Deutsche Telekom, Rakuten, ZTE, Samsung

**Agenda item:** 17.3

**Document Type:** Other

# Introduction

This contribution provided the TP on the on-demand SIB1 based on the agreements:

**Agreement 1: One “Provision Request message includes one “OD-SIB1 config R19” referring to the TS 38.331 definition, it is a RRC Container in octet string (presence M) + one NES Cell ID (presence M ) + one Cell-A ID (presence O )**

**Agreement 2: Cell A gNB-CU encoding the SIBxx.**

**Agreement 3: The NES gNB-CU sends the indication to NES gNB-DU. The NES gNB-DU MAY go to OD-SIB 1 operation up to gNB-DU decision.**

# 5. TP for TS 38.473 – on top of R3-252499

<<<<<<<<<<<<<<<<<<<< Change Begins >>>>>>>>>>>>>>>>>>>>

### 8.2.3 F1 Setup

#### 8.2.3.1 General

The purpose of the F1 Setup procedure is to exchange application level data needed for the gNB-DU and the gNB-CU to correctly interoperate on the F1 interface. This procedure shall be the first F1AP procedure triggered for the F1-C interface instance after a TNL association has become operational.

NOTE: If F1-C signalling transport is shared among multiple F1-C interface instances, one F1 Setup procedure is issued per F1-C interface instance to be setup, i.e. several F1 Setup procedures may be issued via the same TNL association after that TNL association has become operational.

NOTE: Exchange of application level configuration data also applies between the gNB-DU and the gNB-CU in case the DU does not broadcast system information other than for radio frame timing and SFN, as specified in the TS 37.340 [7]. How to use this information when this option is used is not explicitly specified.

The procedure uses non-UE associated signalling.

This procedure erases any existing application level configuration data in the two nodes and replaces it by the one received. This procedure also re-initialises the F1AP UE-related contexts (if any) and erases all related signalling connections in the two nodes like a Reset procedure would do.

#### 8.2.3.2 Successful Operation



Figure 8.2.3.2-1: F1 Setup procedure: Successful Operation

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

If the F1 SETUP REQUEST message contains the *Mobile* *IAB-MT User Location Information* IE, the gNB-CU shall, if supported, take it into account when reporting UE location information to the AMF for a UE served by the mobile IAB-node.

If the *XR Broadcast Information* IE is included in the *Served Cell Information* IE in the F1 SETUP REQUEST message, the gNB-CU shall, if supported, consider the indicated cell does not allow 2Rx XR UEs in case of subsequent outgoing mobility involving XR UEs.

If the *NCGI to be Updated List* IE is included in the F1 SETUP RESPONSE message, the gNB-DU shall, if supported, change the NCGI of the cell indicated by the *Old NCGI* IE to the NCGI indicated by the *New NCGI* IE.

If the *Barring Exemption for Emergency Call Information* IE is included in the *Served Cell Information* IE in the F1 SETUP REQUEST message, the gNB-CU may store the information and consider the indicated cell allows emergency bearer services for UEs who would otherwise consider the cell as barred as specified in TS 38.304 [24].

If the *On-demand SIB1* IEis included and set to “Provision” in the *Served Cell Information* IE in the F1 SETUP REQUEST message, the gNB-CU shall, if supported, use this information indicated in the *od-SIB1-Config* IE for coordination of on-demand SIB1 transmission for network energy saving as specified in TS 38.300 [6].

If the *On-demand SIB1* IE is included and set to “Stop provision” in the *Served Cell Information* IE in the F1 SETUP REQUEST message, the gNB-CU shall, if supported, stop the coordination of on-demand SIB1 transmission as specified in TS 38.300 [6].

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

### 8.2.4 gNB-DU Configuration Update

#### 8.2.4.1 General

The purpose of the gNB-DU Configuration Update procedure is to update application level configuration data needed for the gNB-DU and the gNB-CU to interoperate correctly on the F1 interface. This procedure does not affect existing UE-related contexts, if any. The procedure uses non-UE associated signalling.

NOTE: Update of application level configuration data also applies between the gNB-DU and the gNB-CU in case the DU does not broadcast system information other than for radio frame timing and SFN, as specified in the TS 37.340 [7]. How to use this information when this option is used is not explicitly specified.

#### 8.2.4.2 Successful Operation



Figure 8.2.4.2-1: gNB-DU Configuration Update procedure: Successful Operation

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

If the GNB-DU CONFIGURATION UPDATE message contains the *Mobile IAB-MT User Location Information* IE, the gNB-CU shall, if supported, take it into account when reporting UE location information to the AMF for a UE served by the mobile IAB-node.

If the *XR Broadcast Information* IE is included in the *Served Cell Information* IE in the GNB-DU CONFIGURATION UPDATE message, the gNB-CU shall, if supported, consider the indicated cell does not allow 2Rx XR UEs in case of subsequent outgoing mobility involving XR UEs.

If the *Barring Exemption for Emergency Call Information* IE is included in the *Served Cell Information* IE in the GNB-DU CONFIGURATION UPDATE message, the gNB-CU may store the information and consider the indicated cell allows emergency bearer services for UEs who would otherwise consider the cell as barred as specified in TS 38.304 [24].

If the *On-demand SIB1* IE is included and set to “Provision” in the *Served Cell Information* IE in the GNB-DU CONFIGURATION UPDATE message, the gNB-CU shall, if supported, use this information indicated in the *od-SIB1-Config* IE for coordination of on-demand SIB1 transmission for network energy saving as specified in TS 38.300 [6].

If the *On-demand SIB1* IE is included and set to “Stop provision” in the *Served Cell Information* IE in the GNB-DU CONFIGURATION UPDATE message, the gNB-CU shall, if supported, stop the coordination of on-demand SIB1 transmission for network energy saving as specified in TS 38.300 [6].

### 8.2.5 gNB-CU Configuration Update

#### 8.2.5.1 General

The purpose of the gNB-CU Configuration Update procedure is to update application level configuration data needed for the gNB-DU and gNB-CU to interoperate correctly on the F1 interface. This procedure does not affect existing UE-related contexts, if any. The procedure uses non-UE associated signalling.

#### 8.2.5.2 Successful Operation



Figure 8.2.5.2-1: gNB-CU Configuration Update procedure: Successful Operation

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

If *Cells to be Activated List Item* IE is contained in the GNB-CU CONFIGURATION UPDATE message and the indicated cells are already activated, the gNB-DU shall update the cell information received in *Cells to be Activated List Item* IE.

If *Cells to be Activated List Item* IE is included in the GNB-CU CONFIGURATION UPDATE message, and the information for the cell indicated by the *NR CGI* IE includes the *IAB Info IAB-donor-CU* IE, the gNB-DU shall, if supported, apply the *IAB STC Info* IE therein to the indicated cell.

If the *Cells Allowed to be Deactivated List* IE is contained in the GNB-CU CONFIGURATION UPDATE message, the gNB-DU shall, if supported, consider that it is allowed to deactivate the SSB beams within the indicated cells for network energy saving purpose.

If the *gNB-CU System Information* IE is contained in the gNB-CU CONFIGURATION UPDATE message, the gNB-DU shall include the *Dedicated SI Delivery Needed UE List* IE in the GNB-CU CONFIGURATION UPDATE ACKNOWLEDGE message for UEs that are unable to receive system information from broadcast.

If the *On-Demand SIB1 Cell* IE is contained in the GNB-CU CONFIGURATION UPDATE message, the gNB-DU shall, if supported, consider the cell indicated by the *NR CGI* IE for On-Demand SIB1 operation.

Editor’s note: FFS how to describe the behaviour relative to the *On-Demand SIB1 Indicator* IE.

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

#### 9.2.1.10 GNB-CU CONFIGURATION UPDATE

This message is sent by the gNB-CU to transfer updated information associated to an F1-C interface instance.

NOTE: If F1-C signalling transport is shared among several F1-C interface instances, this message may transfer updated information associated to several F1-C interface instances.

Direction: gNB-CU → gNB-DU

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| Message Type | M |  | 9.3.1.1 |  | YES | reject |
| Transaction ID | M |  | 9.3.1.23 |  | YES | reject |
| **Cells to be Activated List** |  | *0..1* |  | List of cells to be activated or modified | YES | reject |
| **>Cells to be Activated List Item** |  | *1.. <maxCellingNBDU>* |  |  | EACH | reject |
| >>NR CGI | M |  | 9.3.1.12 |  | - |  |
| >>NR PCI  | O |  | INTEGER (0..1007) | Physical Cell ID | - |  |
| >>gNB-CU System Information | O |  | 9.3.1.42 | RRC container with system information owned by gNB-CU | YES | reject |
| >>Available PLMN List | O |  | 9.3.1.65 |  | YES | ignore |
| >>Extended Available PLMN List | O |  | 9.3.1.76 | This is included if *Available PLMN List* IE is included and if more than 6 Available PLMNs is to be signalled. | YES | ignore |
| >>IAB Info IAB-donor-CU | O |  | 9.3.1.105 | IAB-related configuration sent by the IAB-donor-CU. | YES | ignore |
| >>Available SNPN ID List | O |  | 9.3.1.163 | Indicates the available SNPN ID list.If this IE is included, the content of the *Available PLMN List* IE and *Extended Available PLMN List* IE if present in the *Cells to be Activated List Item* IE is ignored. | YES | ignore |
| >>MBS Broadcast Neighbour Cell List | O |  | 9.3.1.226 |  | YES | ignore |
| >>SSBs within the cell to be Activated List | O |  | 9.3.1.326 | List of SSB beams within the cell requested to be activated. | YES | reject |
| <<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>> |
| Extended gNB-CU Name | O |  | 9.3.1.206 |  | YES | ignore |
| **Cells Allowed to be Deactivated List** |  | *0..1* |  |  | YES | ignore |
| >**Cells Allowed to be Deactivated List Item** |  | *1 .. <maxCellingNBDU>* |  |  | EACH | ignore |
| >>NR CGI | M |  | 9.3.1.12 |  | - |  |
| **On-Demand SIB1 Cell** |  | *0..1* |  |  | YES | ignore |
| >NR CGI | M |  | 9.3.1.12 |  | - |  |
| >On-Demand SIB1 Indicator | M |  | ENUMERATED(start, stop, ...) |  | - |  |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxCellingNBDU | Maximum numbers of cells that can be served by a gNB-DU. Value is 512. |
| maxnoofTNLAssociations | Maximum numbers of TNL Associations between the gNB-CU and the gNB-DU. Value is 32. |
| maxCellineNB | Maximum no. cells that can be served by an eNB. Value is 256. |
| *maxnoofSSBAreas* | Maximum no. SSB Areas that can be served by a cell. Value is 64.  |

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

#### 9.3.1.10 Served Cell Information

This IE contains cell configuration information of a cell in the gNB-DU.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| --- | --- | --- | --- | --- | --- | --- |
| NR CGI | M |  | 9.3.1.12 |  | - |  |
| NR PCI | M |  | INTEGER (0..1007) | Physical Cell ID | - |  |
| 5GS TAC | O |  | 9.3.1.29 | 5GS Tracking Area Code | - |  |
| Configured EPS TAC | O |  | 9.3.1.29a |  | - |  |
| **Served PLMNs** |  | *1..<maxnoofBPLMNs>* |  | Broadcast PLMNs in SIB 1 associated to the NR Cell Identity in the *NR CGI* IE | - |  |
| >PLMN Identity | M |  | 9.3.1.14 |  | - |  |
| >TAI Slice Support List | O |  | Slice Support List9.3.1.37 | Supported S-NSSAIs per PLMN or per SNPN.  | YES | ignore |
| >NPN Support Information | O |  | 9.3.1.156 | Supported NPNs per PLMN. | YES | reject |
| >Extended TAI Slice Support List | O |  | Extended Slice Support List9.3.1.165 | Additional Supported S-NSSAIs per PLMN or per SNPN.  | YES | reject |
| >TAI NSAG Support List | O |  | 9.3.1.273 | NSAG information associated with the slices per TAC, per PLMN or per SNPN. | YES | ignore |
| <<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>> |
| XR Broadcast Information | O |  | ENUMERATED (true, …) | Corresponds to information provided in the *cellBarred2RxXR* contained in the *SIB1* message as defined in TS 38.331 [8]. | YES | ignore |
| Barring Exemption for Emergency Call Information | O |  | ENUMERATED (true, …) | Corresponds to information provided in the *barringExemptEmergencyCall*  contained in the *SIB1* message as defined in 38.331 [10]. | YES | ignore |
| CHOICE *on-demand SIB1* | O |  |  |  | YES | ignore |
| >*Provision* |  |  |  |  |  |  |
| >>On-demand SIB1 Config | M |  | Octet String | Includes the *od-SIB1-Config* contained in the SIBxx message as defined in TS 38.331 [8]. | - |  |
| >*Stop provision*  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofBPLMNs | Maximum no. of Broadcast PLMN Ids. Value is 6. |
| maxnoofExtendedBPLMNs | Maximum no. of Extended Broadcast PLMN Ids. Value is 6. |
| maxnoofBPLMNsNR | Maximum no. of PLMN Ids.broadcast in an NR cell. Value is 12. |
| maxnoofNR-UChannelIDs | Maximum no. NR-U Channel IDs in a cell. Value is 16. |
| maxnoofMBSFSAs | Maximum no. of MBS FSAs by a cell. Value is 256. |

###

### 9.4.4 PDU Definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- PDU definitions for F1AP.

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

 Broadcast-MRBs-Transport-Request-Item,

 TAInformation-List,

 NonIntegerDRXCycle,

 AggregatedPosSRSResourceSetList,

 F1U-PathFailure,

 LTMResetInformation,

 On-Demand-SIB1-Cell

FROM F1AP-IEs

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

 id-AggregatedPosSRSResourceSetList,

 id-RANSharingAssistanceInformation,

 id-F1U-PathFailure,

 id-LTMResetInformation,

 id-PreconfiguredSRSInformation,

 id-On-Demand-SIB1-Cell,

 maxCellingNBDU,

 maxnoofCandidateSpCells,

 maxnoofDRBs,

 maxnoofIndividualF1ConnectionsToReset,

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- GNB-CU CONFIGURATION UPDATE

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

GNBCUConfigurationUpdate ::= SEQUENCE {

 protocolIEs ProtocolIE-Container { { GNBCUConfigurationUpdateIEs} },

 ...

}

GNBCUConfigurationUpdateIEs F1AP-PROTOCOL-IES ::= {

 { ID id-TransactionID CRITICALITY reject TYPE TransactionID PRESENCE mandatory }|

 { ID id-Cells-to-be-Activated-List CRITICALITY reject TYPE Cells-to-be-Activated-List PRESENCE optional }|

 { ID id-Cells-to-be-Deactivated-List CRITICALITY reject TYPE Cells-to-be-Deactivated-List PRESENCE optional }|

 { ID id-GNB-CU-TNL-Association-To-Add-List CRITICALITY ignore TYPE GNB-CU-TNL-Association-To-Add-List PRESENCE optional }|

 { ID id-GNB-CU-TNL-Association-To-Remove-List CRITICALITY ignore TYPE GNB-CU-TNL-Association-To-Remove-List PRESENCE optional }|

 { ID id-GNB-CU-TNL-Association-To-Update-List CRITICALITY ignore TYPE GNB-CU-TNL-Association-To-Update-List PRESENCE optional }|

 { ID id-Cells-to-be-Barred-List CRITICALITY ignore TYPE Cells-to-be-Barred-List PRESENCE optional }|

 { ID id-Protected-EUTRA-Resources-List CRITICALITY reject TYPE Protected-EUTRA-Resources-List PRESENCE optional }|

 { ID id-Neighbour-Cell-Information-List CRITICALITY ignore TYPE Neighbour-Cell-Information-List PRESENCE optional }|

 { ID id-Transport-Layer-Address-Info CRITICALITY ignore TYPE Transport-Layer-Address-Info PRESENCE optional }|

 { ID id-UL-BH-Non-UP-Traffic-Mapping CRITICALITY reject TYPE UL-BH-Non-UP-Traffic-Mapping PRESENCE optional }|

 { ID id-BAPAddress CRITICALITY ignore TYPE BAPAddress PRESENCE optional }|

 { ID id-CCO-Assistance-Information CRITICALITY ignore TYPE CCO-Assistance-Information PRESENCE optional }|

 { ID id-CellsForSON-List CRITICALITY ignore TYPE CellsForSON-List PRESENCE optional }|

 { ID id-gNB-CU-Name CRITICALITY ignore TYPE GNB-CU-Name PRESENCE optional }|

 { ID id-Extended-GNB-CU-Name CRITICALITY ignore TYPE Extended-GNB-CU-Name PRESENCE optional }|

 { ID id-Cells-Allowed-to-be-Deactivated-List CRITICALITY ignore TYPE Cells-Allowed-to-be-Deactivated-List PRESENCE optional }|

 { ID id-On-Demand-SIB1-Cell CRITICALITY ignore TYPE On-Demand-SIB1-Cell PRESENCE optional },

 ...

}

Cells-to-be-Deactivated-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Cells-to-be-Deactivated-List-ItemIEs } }

GNB-CU-TNL-Association-To-Add-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF ProtocolIE-SingleContainer { { GNB-CU-TNL-Association-To-Add-ItemIEs } }

GNB-CU-TNL-Association-To-Remove-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF ProtocolIE-SingleContainer { { GNB-CU-TNL-Association-To-Remove-ItemIEs } }

GNB-CU-TNL-Association-To-Update-List ::= SEQUENCE (SIZE(1.. maxnoofTNLAssociations)) OF ProtocolIE-SingleContainer { { GNB-CU-TNL-Association-To-Update-ItemIEs } }

Cells-to-be-Barred-List ::= SEQUENCE(SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Cells-to-be-Barred-ItemIEs } }

Cells-Allowed-to-be-Deactivated-List ::= SEQUENCE (SIZE(1.. maxCellingNBDU)) OF ProtocolIE-SingleContainer { { Cells-Allowed-to-be-Deactivated-List-ItemIEs } }

Cells-Allowed-to-be-Deactivated-List-ItemIEs F1AP-PROTOCOL-IES ::= {

 { ID id-Cells-Allowed-to-be-Deactivated-List-Item CRITICALITY ignore TYPE Cells-Allowed-to-be-Deactivated-List-Item PRESENCE mandatory },

 ...

}

Cells-to-be-Deactivated-List-ItemIEs F1AP-PROTOCOL-IES ::= {

 { ID id-Cells-to-be-Deactivated-List-Item CRITICALITY reject TYPE Cells-to-be-Deactivated-List-Item PRESENCE mandatory },

 ...

}

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

### 9.4.5 Information Element Definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Information Element Definitions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

F1AP-IEs {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) f1ap (3) version1 (1) f1ap-IEs (2) }

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

 id-XR-Bcast-Information,

 id-MaxDataBurstVolume,

 id-BarringExemptionforEmerCallInfo,

 id-SIB17bis-message,

 id-ReportingIntervalIMs,

 id-Transmission-Bandwidth-asymmetric,

 id-TagIDPointer,

 id-LocalOrigin,

 id-SRSPosPeriodicConfigHyperSFNIndex,

 id-OnDemandSIB1,

 id-NESPagingAdaptationIndication,

 maxNRARFCN,

 maxnoofErrors,

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

Cells-Allowed-to-be-Deactivated-List-Item ::= SEQUENCE {

 nRCGI NRCGI,

 iE-Extensions ProtocolExtensionContainer { { Cells-Allowed-to-be-Deactivated-List-ItemExtIEs} } OPTIONAL,

 ...

}

Cells-Allowed-to-be-Deactivated-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 ...

}

Cells-to-be-Deactivated-List-Item ::= SEQUENCE {

 nRCGI NRCGI ,

 iE-Extensions ProtocolExtensionContainer { { Cells-to-be-Deactivated-List-ItemExtIEs } } OPTIONAL,

 ...

}

Cells-to-be-Deactivated-List-ItemExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 ...

}

Cells-to-be-Barred-Item::= SEQUENCE {

 nRCGI NRCGI ,

 cellBarred CellBarred,

 iE-Extensions ProtocolExtensionContainer { { Cells-to-be-Barred-Item-ExtIEs } } OPTIONAL

}

Cells-to-be-Barred-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 { ID id-IAB-Barred CRITICALITY ignore EXTENSION IAB-Barred PRESENCE optional }|

 { ID id-MobileIAB-Barred CRITICALITY ignore EXTENSION MobileIAB-Barred PRESENCE optional },

 ...

}

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

NeighbourNR-CellsForSON-Item ::= SEQUENCE {

 nRCGI NRCGI,

 nR-ModeInfoRel16 NR-ModeInfoRel16 OPTIONAL,

 sSB-PositionsInBurst SSB-PositionsInBurst OPTIONAL,

 nRPRACHConfig NRPRACHConfig OPTIONAL,

 iE-Extensions ProtocolExtensionContainer { { NeighbourNR-CellsForSON-Item-ExtIEs} } OPTIONAL,

 ...

}

NeighbourNR-CellsForSON-Item-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 ...

}

NESPagingAdaptationIndication ::= ENUMERATED {true, ...}

NGRANAllocationAndRetentionPriority ::= SEQUENCE {

 priorityLevel PriorityLevel,

 pre-emptionCapability Pre-emptionCapability,

 pre-emptionVulnerability Pre-emptionVulnerability,

 iE-Extensions ProtocolExtensionContainer { {NGRANAllocationAndRetentionPriority-ExtIEs} } OPTIONAL

}

NGRANAllocationAndRetentionPriority-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 ...

}

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

-- O

OffsetToPointA ::= INTEGER (0..2199,...)

OnDemandPRS-Info ::= SEQUENCE {

 onDemandPRSRequestAllowed BIT STRING (SIZE (16)),

 allowedResourceSetPeriodicityValues BIT STRING (SIZE (24)) OPTIONAL,

 allowedPRSBandwidthValues BIT STRING (SIZE (64)) OPTIONAL,

 allowedResourceRepetitionFactorValues BIT STRING (SIZE (8)) OPTIONAL,

 allowedResourceNumberOfSymbolsValues BIT STRING (SIZE (8)) OPTIONAL,

 allowedCombSizeValues BIT STRING (SIZE (8)) OPTIONAL,

 iE-Extensions ProtocolExtensionContainer { { OnDemandPRS-Info-ExtIEs} } OPTIONAL,

 ...

}

OnDemandPRS-Info-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 ...

}

OnDemandSIB1 ::= CHOICE {

 provision On-demandSIB1Config,

 stopProvison NULL,

 choice-extension ProtocolIE-SingleContainer { { OnDemandSIB1-ExtIEs} }

}

OnDemandSIB1-ExtIEs F1AP-PROTOCOL-IES ::= {

 ...

}

On-Demand-SIB1-Cell ::= CHOICE {

 nRCGI NRCGI,

 on-demandSIBIndindicator ENUMERATED{start, stop, ...},,

 choice-extension ProtocolIE-SingleContainer { { On-Demand-SIB1-Cell-ExtIEs} }

}

On-Demand-SIB1-Cell-ExtIEs F1AP-PROTOCOL-IES ::= {

 ...

}

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

Served-Cell-Information ::= SEQUENCE {

 nRCGI NRCGI,

 nRPCI NRPCI,

 fiveGS-TAC FiveGS-TAC OPTIONAL,

 configured-EPS-TAC Configured-EPS-TAC OPTIONAL,

 servedPLMNs ServedPLMNs-List,

 nR-Mode-Info NR-Mode-Info,

 measurementTimingConfiguration OCTET STRING,

 iE-Extensions ProtocolExtensionContainer { {Served-Cell-Information-ExtIEs} } OPTIONAL,

 ...

}

Served-Cell-Information-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 { ID id-RANAC CRITICALITY ignore EXTENSION RANAC PRESENCE optional }|

 { ID id-ExtendedServedPLMNs-List CRITICALITY ignore EXTENSION ExtendedServedPLMNs-List PRESENCE optional }|

 { ID id-Cell-Direction CRITICALITY ignore EXTENSION Cell-Direction PRESENCE optional }|

 { ID id-BPLMN-ID-Info-List CRITICALITY ignore EXTENSION BPLMN-ID-Info-List PRESENCE optional }|

 { ID id-Cell-Type CRITICALITY ignore EXTENSION CellType PRESENCE optional}|

 { ID id-ConfiguredTACIndication CRITICALITY ignore EXTENSION ConfiguredTACIndication PRESENCE optional }|

 { ID id-AggressorgNBSetID CRITICALITY ignore EXTENSION AggressorgNBSetID PRESENCE optional}|

 { ID id-VictimgNBSetID CRITICALITY ignore EXTENSION VictimgNBSetID PRESENCE optional}|

 { ID id-IAB-Info-IAB-DU CRITICALITY ignore EXTENSION IAB-Info-IAB-DU PRESENCE optional}|

 { ID id-SSB-PositionsInBurst CRITICALITY ignore EXTENSION SSB-PositionsInBurst PRESENCE optional }|

 { ID id-NRPRACHConfig CRITICALITY ignore EXTENSION NRPRACHConfig PRESENCE optional }|

 { ID id-SFN-Offset CRITICALITY ignore EXTENSION SFN-Offset PRESENCE optional }|

 { ID id-NPNBroadcastInformation CRITICALITY reject EXTENSION NPNBroadcastInformation PRESENCE optional }|

 { ID id-Supported-MBS-FSA-ID-List CRITICALITY ignore EXTENSION Supported-MBS-FSA-ID-List PRESENCE optional }|

 { ID id-Redcap-Bcast-Information CRITICALITY ignore EXTENSION Redcap-Bcast-Information PRESENCE optional }|

 { ID id-ERedcap-Bcast-Information CRITICALITY ignore EXTENSION ERedcap-Bcast-Information PRESENCE optional }|

 { ID id-XR-Bcast-Information CRITICALITY ignore EXTENSION XR-Bcast-Information PRESENCE optional }|

 { ID id-BarringExemptionforEmerCallInfo CRITICALITY ignore EXTENSION BarringExemptionforEmerCallInfo PRESENCE optional }|

 { ID id-OnDemandSIB1 CRITICALITY ignore EXTENSION OnDemandSIB1 PRESENCE optional },

 ...

}

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

UEPagingCapability ::= SEQUENCE {

 iNACTIVEStatePODetermination ENUMERATED {supported, ...} OPTIONAL,

 iE-Extension ProtocolExtensionContainer { { UEPagingCapability-ExtIEs} } OPTIONAL,

 ...

}

UEPagingCapability-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 { ID id-RedCapIndication CRITICALITY ignore EXTENSION RedCapIndication PRESENCE optional }|

 { ID id-NESPagingAdaptationIndication CRITICALITY ignore EXTENSION NESPagingAdaptationIndication PRESENCE optional },

 ...

}

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

UuRLCChannelRequiredToBeReleasedList ::= SEQUENCE (SIZE(1.. maxnoofUuRLCChannels)) OF UuRLCChannelRequiredToBeReleasedItem

UuRLCChannelRequiredToBeReleasedItem ::= SEQUENCE {

 uuRLCChannelID UuRLCChannelID,

 iE-Extensions ProtocolExtensionContainer { { UuRLCChannelRequiredToBeReleasedItem-ExtIEs } } OPTIONAL,

 ...

}

UuRLCChannelRequiredToBeReleasedItem-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 ...

}

On-demandSIB1Config ::= OCTET STRING

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

### 9.4.7 Constant Definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

--

-- Constant definitions

--

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

F1AP-Constants {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) f1ap (3) version1 (1) f1ap-Constants (4) }

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

id-TagIDPointer ProtocolIE-ID ::= 853

id-LocalOrigin ProtocolIE-ID ::= 854

id-LTMResetInformation ProtocolIE-ID ::= 855

id-SRSPosPeriodicConfigHyperSFNIndex ProtocolIE-ID ::= 856

id-PreconfiguredSRSInformation ProtocolIE-ID ::= 857

id-OnDemandSIB1 ProtocolIE-ID ::= aaa

id-NESPagingAdaptationIndication ProtocolIE-ID ::= bbb

id-On-Demand-SIB1-Cell ProtocolIE-ID ::= ccc

<<<<<<<<<<<<<<<<<<<< Change Ends >>>>>>>>>>>>>>>>>>>>

<<<<<<<<<<<<<<<<<<<< Change Ends >>>>>>>>>>>>>>>>>>>>