**3GPP TSG-RAN WG3 Meeting #129 *R3-255811***

**Bengaluru, India, 25th ~29th Aug, 2025**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **36.443** | **CR** | **0133** | **rev** | **1** | **Current version:** | **18.0.0** |  |
|  | | | | | | | | |
| *For* [***HELP***](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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Introduction of LTE-based 5G Broadcast Phase 2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, Qualcomm Incorporated, EBU, ZTE | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LTE\_terr\_bcast\_Ph2 | | | | |  | ***Date:*** | | | 2025-08-28 |
|  |  | | | |  | |  | | |  |
| ***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 can be 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) Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | According to WID RP-250794, the time/frequency interleaver is introduced for LTE-based 5G Terrestrial Broadcast. The M2AP should be enhanced to support the the time/frequency interleaver. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | In the *PMCH Configuration* IE, introduce *MCH Scheduling Period Extended 3* IE, *Time Interleaving Parameters* IE and *Frequency Interleaving Indicator* IE to support time/frequency interleaver. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Cannot support LTE-based 5G Broadcast Phase 2. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.4.2, 9.2.1.8, 9.2.1.xx(new), 9.2.1.yy(new), 9.3.4, and 9.3.7 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **x** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev 1: add co-source company, fix typos. | | | | | | | | |

*CHANGES START*

## 8.4 MBMS Scheduling Information

### 8.4.1 General

The purpose of the MBMS Scheduling Information Procedure is to provide MCCH related information, and optional session suspension decision to the eNB.

The procedure uses non MBMS-Service-associated signalling.

### 8.4.2 Successful Operation



Figure 8.4.2-1. MBMS Scheduling Information procedure. Successful operation.

The MCE initiates the procedure by sending the MBMS SCHEDULING INFORMATION message to the eNB. The eNB shall store the *MBSFN Area Configuration Item* IE, apply the MCCH update from the modification period defined in the *MCCH Update Time* IE, and transmit the MCCH according to the MCCH configuration for the given MBSFN area indicated by the MCE. If an empty *PMCH Configuration List* IE is contained in this message for an MBSFN area, the eNB shall update the content of the corresponding MCCH so as not to include PMCH related information over the corresponding MCCH. If the *Modulation and Coding Scheme 2* IE is included, the eNB shall ignore the *Modulation and Coding Scheme* IE and use the *Modulation and Coding Scheme 2* IE instead. If the received *PMCH Configuration* IE contains the *MCH Scheduling Period Extended* IE, the eNB shall take its value into account instead of the value signalled in the *MCH Scheduling Period* IE. If the received *PMCH Configuration* IE contains the *MCH Scheduling Period Extended 2* IE, the eNB shall take its value into account instead of the value signalled in the *MCH Scheduling Period* IE. If the received *PMCH Configuration* IE contains the *MCH Scheduling Period Extended 3* IE, the eNB shall take its value into account instead of the value signalled in the *MCH Scheduling Period* IE. The eNB shall schedule the MBMS services in the MCCH according to the order defined in the *MBMS Session List per PMCH* IE. If the *MBMS Suspension Notification List* IE is included in this message for an MBSFN area, the eNB shall broadcast the suspension decision over the air interface from the radio frame defined by the *SFN* IE, until the end of the Modification Period just before the "MCCH Update Time". If the received *PMCH Configuration* IE contains the *Frequency Interleaving Indicator* IE, the eNB shall, if supported, store it and take it into account. If the received *PMCH Configuration* IE contains the *Time Interleaving Indicator* IE, the eNB shall, if supported, store it and take it into account.

### If the MBMS SCHEDULING INFORMATION message contains the *Subframe Allocation Extended* IE included in the *MBSFN Subframe Configuration* IE, the eNB shall, if supported, store it and take it into account.8.4.3 Abnormal Conditions

Void.

*NEXT CHANGE*

9.2.1.8 PMCH Configuration

This information element provided PMCH configuration related content for MCCH.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| Allocated Subframes End | M |  | INTEGER (0..1535) | Encoded as the *sf-AllocEnd*  IE in TS 36.331 [11]. | − | − |
| Modulation and Coding Scheme | M |  | INTEGER (0..28) | Encoded as the *dataMCS*  IE in TS 36.331 [11]. | − | − |
| MCH Scheduling Period | M |  | ENUMERATED (rf8, rf16, rf32, rf64, rf128, rf256, rf512, rf1024) | Encoded as the *mch-SchedulingPeriod* IE in TS 36.331 [11]. | − | − |
| Modulation and Coding Scheme 2 | O |  | INTEGER (0..27) | Encoded as the t2 in the *dataMCS* IE in TS 36.331 [11]. If this IE is present, the value signalled in the *Modulation and Coding Scheme* IE is ignored. | YES | reject |
| MCH Scheduling Period Extended | O |  | ENUMERATED (rf4, …) | Encoded as the *mch-SchedulingPeriod-r12* IE in TS 36.331 [11]. If this IE is present, the value signalled in the *MCH Scheduling Period* IE is ignored. | YES | reject |
| MCH Scheduling Period Extended 2 | O |  | ENUMERATED (rf1, rf2, …) | Encoded as the *mch-SchedulingPeriod-v14x0* IE in TS 36.331 [11]. If this IE is present, the value signalled in the *MCH Scheduling Period* IE is ignored. | YES | reject |
| MCH Scheduling Period Extended 3 | O |  | ENUMERATED (rf7, rf14, rf28, rf53, rf56, rf108, rf112, rf212, rf424, …) | Encoded as the *mch-SchedulingPeriod-v19xy* contained in the *PMCH-TFI-Config-r19* IE in TS 36.331 [11].  If this IE is present, the value signalled in the *MCH Scheduling Period* IE is ignored. | YES | reject |
| Frequency Interleaving Indicator | O |  | 9.2.1.xx |  | YES | reject |
| Time Interleaving Parameters | O |  | 9.2.1.yy |  | YES | reject |

*NEXT CHANGE*

#### 9.2.1.xx Frequency Interleaving Indicator

This IE indicates whether frequency interleaving is enabled or not.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| Frequency Interleaving Indicator | M |  | ENUMERATED (enabled, …) | Encoded as the *pmch-FreqInterleaving-r19* contained in the *PMCH-TFI-Config-r19* IE in TS 36.331 [11]. |

#### 9.2.1.yy Time Interleaving parameters

This IE defines the time interleaving parameters.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| Value M | M |  | ENUMERATED (sf4, sf8, sf16, sf32, …) | Encoded as the *pmch-TimeInterleavingM-r19* contained in the *PMCH-TFI-Config-r19* IE in TS 36.331 [11]. |
| Value N | M |  | ENUMERATED (n2, n4, n8, n16, …) | Encoded as the *pmch-TimeInterleavingN-r19* contained in the *PMCH-TFI-Config-r19* IE in TS 36.331 [11]. |
| Scaling factor Beta | M |  | ENUMERATED (one32th, one5th, one3rd, three8th, five12th, onehalf, five8th, two3rd,  five6th, one, …) | Encoded as the *scalingFactorBeta-r19* in the *softBufferSizeParameters-r19* contained in the *PMCH-TFI-Config-r19* IE in TS 36.331 [11]. |
| Reference UE Category | M |  | INTEGER (4..26, ...) | Encoded as the *refUE-CategoryDL-r19* in the *softBufferSizeParameters-r19* contained in the *PMCH-TFI-Config-r19* IE in TS 36.331 [11]. |
| Value M-Last MTCH | O |  | ENUMERATED (sf4, sf8, sf16, sf32, …) | Encoded as the *pmch-TimeInterleavingM-LastMTCH-r19* contained in the *PMCH-TFI-Config-r19* IE in TS 36.331 [11]. |
| Value N-Last MTCH | O |  | ENUMERATED (n2, n4, n8, n16, …) | Encoded as the *pmch-TimeInterleavingN-LastMTCH-r19* contained in the *PMCH-TFI-Config-r19* IE in TS 36.331 [11]. |
| Cyclic Shift Alpha | O |  | ENUMERATED (alphaOne, alphaOther, …) | Encoded as the *pmch-CyclicShiftAlpha-r19* contained in the *PMCH-TFI-Config-r19* IE in TS 36.331[11]. |

*NEXT CHANGE*

### 9.3.5 Information Element definitions

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

--

-- Information Element Definitions

--

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

M2AP-Ies {

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

eps-Access (21) modules (3) m2ap (4) version1 (1) m2ap-Ies (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

id-MCH-Scheduling-PeriodExtended,

id-MCH-Scheduling-PeriodExtended2,

id-Modification-PeriodExtended,

id-Modulation-Coding-Scheme2,

id-Repetition-PeriodExtended,

id-Subcarrier-SpacingMBMS,

id-SubframeAllocationExtended,

id-SubframeAllocationFurtherExtension,

id-AdditionalConfigParameters,

id-FrequencyInterleavingIndicator,

id-TimeInterleavingParameters,

id-MCH-Scheduling-PeriodExtended3,

maxnoofMBSFNareas,

maxnoofPMCHsperMBSFNarea,

maxnoofCells,

maxnoofMBMSServiceAreasPerCell,

maxnoofSessionsPerPMCH,

maxnooferrors,

maxnoofCellsforMBMS

FROM M2AP-Constants

### *//skip unchanged part*

ENBname ::= PrintableString (SIZE (1..150,...))

EUTRANCellIdentifier ::= BIT STRING (SIZE (28))

-- F

FrequencyInterleavingIndicator ::= ENUMERATED {enabled, ...}

-- G

GBR-QosInformation ::= SEQUENCE {

mBMS-E-RAB-MaximumBitrateDL BitRate,

mBMS-E-RAB-GuaranteedBitrateDL BitRate,

iE-Extensions ProtocolExtensionContainer { { GBR-QosInformation-ExtIEs} } OPTIONAL,

...

}

GBR-QosInformation-ExtIEs M2AP-PROTOCOL-EXTENSION ::= {

...

}

### *//skip unchanged part*

-- M

MBMS-Cell-List ::= SEQUENCE (SIZE(1.. maxnoofCellsforMBMS)) OF ECGI

MBMS-E-RAB-QoS-Parameters ::= SEQUENCE {

qCI QCI,

gbrQosInformation GBR-QosInformation OPTIONAL,

allocationAndRetentionPriority AllocationAndRetentionPriority,

iE-Extensions ProtocolExtensionContainer { { MBMS-E-RAB-QoS-Parameters-ExtIEs} } OPTIONAL,

...

}

MBMS-E-RAB-QoS-Parameters-ExtIEs M2AP-PROTOCOL-EXTENSION ::= {

...

}

MBMS-Service-associatedLogicalM2-ConnectionItem ::= SEQUENCE {

eNB-MBMS-M2AP-ID ENB-MBMS-M2AP-ID OPTIONAL,

mCE-MBMS-M2AP-ID MCE-MBMS-M2AP-ID OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MBMS-Service-associatedLogicalM2-ConnectionItemExtIEs} } OPTIONAL,

...

}

MBMS-Service-associatedLogicalM2-ConnectionItemExtIEs M2AP-PROTOCOL-EXTENSION ::= {

...

}

MBMS-Service-Area ::= OCTET STRING

MBMS-Service-Area-ID-List ::= SEQUENCE (SIZE(1..maxnoofMBMSServiceAreasPerCell)) OF MBMS-Service-Area

MBMS-Session-ID ::= OCTET STRING (SIZE (1))

MBMSsessionListPerPMCH-Item ::= SEQUENCE (SIZE(1..maxnoofSessionsPerPMCH)) OF SEQUENCE {

tmgi TMGI,

lcid LCID,

iE-Extensions ProtocolExtensionContainer { { MBMSsessionListPerPMCH-Item-ExtIEs} } OPTIONAL,

...

}

MBMSsessionListPerPMCH-Item-ExtIEs M2AP-PROTOCOL-EXTENSION ::= {

...

}

MBMSsessionsToBeSuspendedListPerPMCH-Item ::= SEQUENCE (SIZE(1..maxnoofSessionsPerPMCH)) OF SEQUENCE {

tmgi TMGI,

iE-Extensions ProtocolExtensionContainer { { MBMSsessionsToBeSuspendedListPerPMCH-Item-ExtIEs} } OPTIONAL,

...

}

MBMSsessionsToBeSuspendedListPerPMCH-Item-ExtIEs M2AP-PROTOCOL-EXTENSION ::= {

...

}

MBSFN-Area-ID ::= INTEGER (0..255)

MBSFN-SynchronisationArea-ID ::= INTEGER (0..65535)

MBSFN-Subframe-Configuration ::= SEQUENCE {

radioframeAllocationPeriod ENUMERATED {n1, n2, n4, n8, n16, n32},

radioframeAllocationOffset INTEGER (0..7),

subframeAllocation CHOICE {

oneFrame BIT STRING (SIZE (6) ),

fourFrames BIT STRING (SIZE (24) ) },

iE-Extensions ProtocolExtensionContainer { { MBSFN-Subframe-Configuration-ExtIEs} } OPTIONAL,

...

}

MBSFN-Subframe-Configuration-ExtIEs M2AP-PROTOCOL-EXTENSION ::= {

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

{ID id-SubframeAllocationFurtherExtension CRITICALITY reject EXTENSION SubframeAllocationFurtherExtension PRESENCE optional},

...

}

MCCH-Update-Time ::= INTEGER (0..255)

MCCHrelatedBCCH-ConfigPerMBSFNArea-Item ::= SEQUENCE {

mbsfnArea MBSFN-Area-ID,

pdcchLength ENUMERATED {s1, s2, ...},

repetitionPeriod ENUMERATED {rf32, rf64, rf128, rf256},

offset INTEGER (0..10),

modificationPeriod ENUMERATED {rf512, rf1024},

subframeAllocationInfo BIT STRING (SIZE(6)),

modulationAndCodingScheme ENUMERATED {n2, n7, n13, n19},

cellInformationList Cell-Information-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MCCHrelatedBCCH-ConfigPerMBSFNArea-Item-ExtIEs} } OPTIONAL,

...

}

MCCHrelatedBCCH-ConfigPerMBSFNArea-Item-ExtIEs M2AP-PROTOCOL-EXTENSION ::= {

-- Extension for Rel-14 to support MCCH repetition period values –-

{ID id-Repetition-PeriodExtended CRITICALITY reject EXTENSION Repetition-PeriodExtended PRESENCE optional}|

-- Extension for Rel-14 to support MCCH modification period values –-

{ID id-Modification-PeriodExtended CRITICALITY reject EXTENSION Modification-PeriodExtended PRESENCE optional}|

{ID id-Subcarrier-SpacingMBMS CRITICALITY reject EXTENSION Subcarrier-SpacingMBMS PRESENCE optional},

...

}

MCCHrelatedBCCH-ExtConfigPerMBSFNArea-Item ::= SEQUENCE {

mbsfnArea MBSFN-Area-ID,

repetitionPeriodExpanded ENUMERATED {rf1, rf2, rf4, rf8, rf16, rf32, rf64, rf128, rf256, ...},

offset INTEGER (0..10),

modificationPeriodExpanded ENUMERATED {rf1, rf2, rf4, rf8, rf16, rf32, rf64, rf128, rf256, rf512, rf1024, ...},

subframeAllocationInfoExpanded BIT STRING (SIZE(10)),

modulationAndCodingScheme ENUMERATED {n2, n7, n13, n19},

subcarrier-SpacingMBMSExpanded ENUMERATED {khz-7dot5, khz-2dot5, khz-1dot25, khz-0dot37, ..., kHz-15},

timeSeparation ENUMERATED {sl2, sl4, ...} OPTIONAL,

cellInformationList Cell-Information-List OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { MCCHrelatedBCCH-ExtConfigPerMBSFNArea-Item-ExtIEs} } OPTIONAL,

...

}

MCCHrelatedBCCH-ExtConfigPerMBSFNArea-Item-ExtIEs M2AP-PROTOCOL-EXTENSION ::= {

-- Extension for Rel-17 to support PMCH Bandwidth values –-

{ID id-AdditionalConfigParameters CRITICALITY reject EXTENSION AdditionalConfigParameters PRESENCE optional},

...

}

MCE-ID ::= OCTET STRING (SIZE(2))

MCE-MBMS-M2AP-ID ::= INTEGER (0.. 16777215)

MCEname ::= PrintableString (SIZE (1..150,...))

MCH-Scheduling-Period ::= ENUMERATED {rf8, rf16, rf32, rf64, rf128, rf256, rf512, rf1024}

MCH-Scheduling-PeriodExtended ::= ENUMERATED {rf4, ...}

MCH-Scheduling-PeriodExtended2 ::= ENUMERATED {rf1, rf2, ...}

MCH-Scheduling-PeriodExtended3 ::= ENUMERATED {rf7, rf14, rf28, rf53, rf56, rf108, rf112, rf212, rf424, ...}

Modulation-Coding-Scheme2 ::= INTEGER (0..27)

Modification-PeriodExtended ::= ENUMERATED {rf1, rf2, rf4, rf8, rf16, rf32, rf64, rf128, rf256, ...}

-- N

-- O

-- P

PLMN-Identity ::= OCTET STRING (SIZE(3))

PMCH-Bandwidth ::= ENUMERATED {n40, n35, n30, ...}

PMCH-Configuration ::= SEQUENCE {

allocatedSubframesEnd AllocatedSubframesEnd,

dataMCS INTEGER (0..28),

mchSchedulingPeriod MCH-Scheduling-Period,

iE-Extensions ProtocolExtensionContainer { {PMCH-Configuration-ExtIEs} } OPTIONAL,

...

}

PMCH-Configuration-ExtIEs M2AP-PROTOCOL-EXTENSION ::= {

-- Extension for Rel-12 to support 256QAM for MTCH –

{ID id-Modulation-Coding-Scheme2 CRITICALITY reject EXTENSION Modulation-Coding-Scheme2 PRESENCE optional}|

-- Extension for Rel-12 to support shorter MCH scheduling period –

{ID id-MCH-Scheduling-PeriodExtended CRITICALITY reject EXTENSION MCH-Scheduling-PeriodExtended PRESENCE optional}|

-- Extension for Rel-14 to support shorter MCH scheduling period values –

{ID id-MCH-Scheduling-PeriodExtended2 CRITICALITY reject EXTENSION MCH-Scheduling-PeriodExtended2 PRESENCE optional}|

{ID id-MCH-Scheduling-PeriodExtended3 CRITICALITY reject EXTENSION MCH-Scheduling-PeriodExtended3 PRESENCE optional}|

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

{ID id-TimeInterleavingParameters CRITICALITY reject EXTENSION TimeInterleavingParameters PRESENCE optional},

...

}

Common-Subframe-Allocation-Period ::= ENUMERATED {rf4, rf8, rf16, rf32, rf64, rf128, rf256}

Pre-emptionCapability ::= ENUMERATED {

shall-not-trigger-pre-emption,

may-trigger-pre-emption

}

Pre-emptionVulnerability ::= ENUMERATED {

not-pre-emptable,

pre-emptable

}

PriorityLevel ::= INTEGER { spare (0), highest (1), lowest (14), no-priority (15) } (0..15)

### *//skip unchanged part*

-- T

TimeInterleavingParameters ::= SEQUENCE {

valueM ENUMERATED {sf4, sf8, sf16, sf32, ...},

valueN ENUMERATED {n2, n4, n8, n16, ...},

scalingfactorBeta ENUMERATED {one32th, one5th, one3rd, three8th, five12th, onehalf, five8th, two3rd, five6th, one, ...},

referenceUECategory INTEGER (4..26,...),

valueM-LastMTCH ENUMERATED {sf4, sf8, sf16, sf32, ...} OPTIONAL,

valueN-LastMTCH ENUMERATED {n2, n4, n8, n16, ...} OPTIONAL,

cyclicShiftAlpha ENUMERATED {alphaOne, alphaOther, ...} OPTIONAL,

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

...

}

TimeInterleavingParameters-ExtIEs M2AP-PROTOCOL-EXTENSION ::= {

...

}

TimeToWait ::= ENUMERATED {v1s, v2s, v5s, v10s, v20s, v60s, ...}

TMGI ::= SEQUENCE {

pLMNidentity PLMN-Identity,

serviceID OCTET STRING (SIZE (3)),

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

...

}

TMGI-ExtIEs M2AP-PROTOCOL-EXTENSION ::= {

...

}

TNL-Information ::= SEQUENCE {

iPMCAddress IPAddress,

iPSourceAddress IPAddress,

gTP-TEID GTP-TEID,

iE-Extensions ProtocolExtensionContainer { {TNL-Information-ExtIEs} } OPTIONAL,

...

}

TNL-Information-ExtIEs M2AP-PROTOCOL-EXTENSION ::= {

...

}

TypeOfError ::= ENUMERATED {

not-understood,

missing,

...

}

*NEXT CHANGE*

### 9.4.7 Constant Definitions

-- ASN1START

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

--

-- Constant definitions

--

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

NGAP-Constants {

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

ngran-Access (22) modules (3) ngap (1) version1 (1) ngap-Constants (4) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

### *//skip unchanged part*

id-MaximumDataBurstVolume ProtocolIE-ID ::= 432

id-MN-only-MDT-collection ProtocolIE-ID ::= 433

id-MBS-NGUFailureIndication ProtocolIE-ID ::= 434

id-UserPlaneFailureIndication ProtocolIE-ID ::= 435

id-UserPlaneFailureIndicationReport ProtocolIE-ID ::= 436

id-SourceSN-to-TargetSN-QMCInfo ProtocolIE-ID ::= 437

id-QoERVQoEReportingPaths ProtocolIE-ID ::= 438

id-UserLocationInformationN3IWF-without-PortNumber ProtocolIE-ID ::= 439

id-AUN3DeviceAccessInfo ProtocolIE-ID ::= 440

id-FrequencyInterleavingIndicator ProtocolIE-ID ::= xxx

id-TimeInterleavingParameters ProtocolIE-ID ::= yyy

id-MCH-Scheduling-PeriodExtended3 ProtocolIE-ID ::= zzz

END

-- ASN1STOP

*CHANGES END*