**3GPP TSG-CT WG4 Meeting #107-eC4-216035v2**

**E-Meeting, 15th – 23rd November 2021**

|  |
| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **29.168** | **CR** | **0077** | **rev** | **1** | **Current version:** | **17.0.0** |  |
|  |
| *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)*.* |
|  |

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

|  |
| --- |
|  |
| ***Title:***  | Addition of Test Flag |
|  |  |
| ***Source to WG:*** | one2many, KPN |
| ***Source to TSG:*** | CT4 |
|  |  |
| ***Work item code:*** | TEI17 |  | ***Date:*** | 2021-11-21 |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***Release:*** | Rel-17 |
|  | *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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | Any test aimed at checking that resources needed for the delivery of a PWS message are correctly operating (e.g. correct operation of nodes, interfaces, cells, availability of resources over the air) can only be done end to end, i.e. involving broadcasting over the air and decoding at the UE of test messages with specific Message Identifiers.The addition of a Test Flag has been specified in stage 2 (published as TS 23.041 V17.2.0). |
|  |  |
| ***Summary of change:*** | Addition of Test Flag in the message request which is processed as a normal message by the RAN nodes, but doesn't result in broadcast over the air and doesn't allocate any resources.The Test Flag is only applicable if the Write-Replace-Warning Request is sent via a PWS-IWF. |
|  |  |
| ***Consequences if not approved:*** | When using the existing test techniques involving the air interface and UE, are:• waste of radio resources due to potentially frequent broadcast over the air• impact on UE battery consumption due to UEs having to decode updated SIBs.An inconsistency will occur between stage 2 and stage 3. |
|  |  |
| ***Clauses affected:*** | 4.3.4.2.1, 4.3.4.3.x (new), 4.4.4, 4.4.5, 4.4.7 |
|  |  |
|  | **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:*** | The assigned criticality for the Test Flag was changed from "ignore" to "reject". When the PWS-IWF does not recognize the Test Flag it shall reject the message because a message wihout Test Flag shal not result in any broadcast. |

**\*\*\*\*\*\*\***

\* \* \* First Change \* \* \* \*

##### 4.3.4.2.1 WRITE-REPLACE WARNING REQUEST

This message is sent by the CBC to request start or overwrite of a warning message broadcast.

If the message is sent to the MME, then:

- the List of TAIs IE, the Warning Area List IE and the Global eNB ID IE may be used; and

- the List of 5GS TAIs IE, the Warning Area List 5GS IE, the Global RAN Node ID IE and the RAT Selector 5GS IE shall not be used.

If the message is sent to the PWS-IWF, then:

- the List of 5GS TAIs IE, the Warning Area List 5GS IE, the Global RAN Node ID IE may be used;

- the List of TAIs IE, the Warning Area List IE and the Global eNB ID IE shall not be used; and- the message shall address a Warning Area in E-UTRA or in NR, but not both simultaneously; the RAT Selector 5GS IE shall be used if the message is for the NR RAT.

Direction: CBC → MME, PWS-IWF

Table 4.3.4.2.1-1: WRITE-REPLACE WARNING REQUEST message contents

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| Message Type | M |  | 4.3.4.3.1 |  | YES | reject |
| Message Identifier | M |  | [7] |  | YES | reject |
| Serial Number | M |  | [7] |  | YES | reject |
| **List of TAIs** | O |  |  |  | YES | reject |
|  **>TAI List Item** |  | 1 to <maxnoofTAI> |  |  |  |  |
|  >>TAI | M |  | [7] |  |  |  |
| Warning Area List | O |  | [7] |  | YES | ignore |
| Repetition Period | M |  | [7] |  | YES | reject |
| Extended Repetition Period | O |  | [7] |  | YES | reject |
| Number of Broadcast Requested | M |  | [7] |  | YES | reject |
| Warning Type | O |  | [7] |  | YES | ignore |
| Warning Security Information | O |  | [7] |  | YES | ignore |
| Data Coding Scheme | O |  | [7] |  | YES | ignore |
| Warning Message Contents | O |  | [7] |  | YES | ignore |
| OMC ID | O |  | 4.3.4.3.4 |  | YES | ignore |
| Concurrent Warning Message Indicator | O |  | [7] |  | YES | reject |
| Send Write-Replace-Warning-Indication | O |  | 4.3.4.3.5 |  | YES | ignore |
| Global eNB ID | O |  | [7] |  | YES | ignore |
| List of 5GS TAIs | O |  |  |  | YES | ignore |
|  >5GS TAI List Item |  | 1 to <maxnoof5GSTAIs> |  |  |  |  |
|  >>5GS TAI | M |  | [17] |  |  |  |
| Warning Area List 5GS | O |  | [17] |  | YES | ignore |
| Global RAN Node ID | O |  | [17] |  | YES | Ignore |
| RAT Selector 5GS | C |  | 4.3.4.3.10 |  | YES | ignore |
| Warning Area Coordinates | O |  | [7] |  | YES | Ignore |
| Test Flag 5GS | O |  | 4.3.4.3.x |  | YES | reject |

Table 4.3.4.2.1-2: RANGE explanation

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofTAI | Maximum no. of TAI subject for warning message broadcast in E‑UTRAN. Value is 65535. |
| Maxnoof5GSTAIs | Maximum no. of TAI subject for warning message broadcast in 5GS.  |

Editor's Note: the Maxnoof5GSTAIs value is FFS in RAN3 (assumption for ASN1 is 65535).

\* \* \* Next Change \* \* \* \*

##### 4.3.4.3.x Test Flag 5GS

The *Test Flag 5GS* IE may be included to indicate to the NG-RAN node that the request is to be processed and responded to normally, but shall not result in broadcast over the air and shall not allocate any resources (i.e. the request cannot be cancelled).

This IE may only be included in the WRITE-REPLACE WARNING-REQUEST if the CBC sends the request to a PWS-IWF.

Table 4.3.4.3.x-1: Test Flag 5GS information element

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
| Test Flag 5GS | O |  | ENUMERATED(true) |  |

\* \* \* Next Change \* \* \* \*

### 4.4.4 PDU definitions

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

--

-- PDU definitions for SBC-AP.

--

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

SBC-AP-PDU-Contents {

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

eps-Access (21) modules (3) sbc-AP (3) version1 (1) sbc-AP-PDU-Contents (1)}

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- IE parameter types from other modules.

--

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

IMPORTS

 Cause,

 Concurrent-Warning-Message-Indicator,

 Criticality-Diagnostics,

 Data-Coding-Scheme,

 Message-Identifier,

 Serial-Number,

 List-of-TAIs,

 Warning-Area-List,

 Omc-Id,

 Repetition-Period,

 Extended-Repetition-Period,

 Number-of-Broadcasts-Requested,

 Warning-Type,

 Warning-Security-Information,

 Warning-Message-Content,

 Warning-Area-Coordinates,

 Send-Write-Replace-Warning-Indication,

 Broadcast-Scheduled-Area-List,

 Unknown-Tracking-Area-List,

 Send-Stop-Warning-Indication,

 Broadcast-Cancelled-Area-List,

 Stop-All-Indicator,

 Broadcast-Empty-Area-List,

 Restarted-Cell-List,

 Global-ENB-ID,

 List-of-TAIs-Restart,

 List-of-EAIs-Restart,

 Failed-Cell-List,

 List-of-5GS-TAIs,

 Warning-Area-List-5GS,

 Global-RAN-Node-ID,

 Global-GNB-ID,

 RAT-Selector-5GS,

 Unknown-5GS-Tracking-Area-List,

 Broadcast-Scheduled-Area-List-5GS,

 Broadcast-Cancelled-Area-List-5GS,

 Broadcast-Empty-Area-List-5GS,

 Restarted-Cell-List-NR,

 Failed-Cell-List-NR,

 List-of-5GS-TAI-for-Restart,

 Test-Flag-5GS

FROM SBC-AP-IEs

 ProtocolExtensionContainer{},

 ProtocolIE-Container{},

 SBC-AP-PROTOCOL-EXTENSION,

 SBC-AP-PROTOCOL-IES

FROM SBC-AP-Containers

 id-Concurrent-Warning-Message-Indicator,

 id-Criticality-Diagnostics,

 id-Cause,

 id-Data-Coding-Scheme,

 id-List-of-TAIs,

 id-Message-Identifier,

 id-Serial-Number,

 id-Number-of-Broadcasts-Requested,

 id-Omc-Id,

 id-Radio-Resource-Loading-List,

 id-Recovery-Indication,

 id-Repetition-Period,

 id-Extended-Repetition-Period,

 id-Warning-Area-List,

 id-Warning-Message-Content,

 id-Warning-Area-Coordinates,

 id-Warning-Security-Information,

 id-Warning-Type,

 id-Send-Write-Replace-Warning-Indication,

 id-Broadcast-Scheduled-Area-List,

 id-Unknown-Tracking-Area-List,

 id-Send-Stop-Warning-Indication,

 id-Broadcast-Cancelled-Area-List,

 id-Stop-All-Indicator,

 id-Broadcast-Empty-Area-List,

 id-Global-ENB-ID,

 id-Restarted-Cell-List,

 id-List-of-TAIs-Restart,

 id-List-of-EAIs-Restart,

 id-Failed-Cell-List,

 id-List-of-5GS-TAIs,

 id-Warning-Area-List-5GS,

 id-Global-RAN-Node-ID,

 id-Global-GNB-ID,

 id-RAT-Selector-5GS,

 id-Unknown-5GS-Tracking-Area-List,

 id-Broadcast-Scheduled-Area-List-5GS,

 id-Broadcast-Cancelled-Area-List-5GS,

 id-Broadcast-Empty-Area-List-5GS,

 id-Restarted-Cell-List-NR,

 id-Failed-Cell-List-NR,

 id-List-of-5GS-TAI-for-Restart,

 id-Test-Flag-5GS

FROM SBC-AP-Constants;

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

--

-- Write-Replace-Warning-Request

--

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

Write-Replace-Warning-Request ::= SEQUENCE {

 protocolIEs ProtocolIE-Container { {Write-Replace-Warning-Request-IEs} },

 protocolExtensions ProtocolExtensionContainer { {Write-Replace-Warning-Request-Extensions} } OPTIONAL,

 ...

}

Write-Replace-Warning-Request-IEs SBC-AP-PROTOCOL-IES ::= {

 { ID id-Message-Identifier CRITICALITY reject TYPE Message-Identifier PRESENCE mandatory } |

 { ID id-Serial-Number CRITICALITY reject TYPE Serial-Number PRESENCE mandatory } |

 { ID id-List-of-TAIs CRITICALITY reject TYPE List-of-TAIs PRESENCE optional } |

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

 { ID id-Repetition-Period CRITICALITY reject TYPE Repetition-Period PRESENCE mandatory } |

 { ID id-Extended-Repetition-Period CRITICALITY reject TYPE Extended-Repetition-Period PRESENCE optional } |

 { ID id-Number-of-Broadcasts-Requested

 CRITICALITY reject TYPE Number-of-Broadcasts-Requested PRESENCE mandatory } |

 { ID id-Warning-Type CRITICALITY ignore TYPE Warning-Type PRESENCE optional } |

 { ID id-Warning-Security-Information CRITICALITY ignore TYPE Warning-Security-Information PRESENCE optional } |

 { ID id-Data-Coding-Scheme CRITICALITY ignore TYPE Data-Coding-Scheme PRESENCE optional } |

 { ID id-Warning-Message-Content

 CRITICALITY ignore TYPE Warning-Message-Content PRESENCE optional } |

 { ID id-Omc-Id CRITICALITY ignore TYPE Omc-Id PRESENCE optional } |

 { ID id-Concurrent-Warning-Message-Indicator CRITICALITY reject TYPE Concurrent-Warning-Message-Indicator PRESENCE optional } |

 { ID id-Send-Write-Replace-Warning-Indication CRITICALITY ignore TYPE Send-Write-Replace-Warning-Indication PRESENCE optional } |

 { ID id-Global-ENB-ID CRITICALITY ignore TYPE Global-ENB-ID PRESENCE optional },

 ... ,

 {ID id-Warning-Area-Coordinates CRITICALITY ignore TYPE Warning-Area-Coordinates PRESENCE optional}

}

Write-Replace-Warning-Request-Extensions SBC-AP-PROTOCOL-EXTENSION ::= {

 { ID id-List-of-5GS-TAIs CRITICALITY ignore EXTENSION List-of-5GS-TAIs PRESENCE optional }|

 { ID id-Warning-Area-List-5GS CRITICALITY ignore EXTENSION Warning-Area-List-5GS PRESENCE optional }|

 { ID id-Global-RAN-Node-ID CRITICALITY ignore EXTENSION Global-RAN-Node-ID PRESENCE optional }|

 { ID id-RAT-Selector-5GS CRITICALITY ignore EXTENSION RAT-Selector-5GS PRESENCE optional }|

 { ID id-Test-Flag-5GS CRITICALITY reject EXTENSION Test-Flag-5GS PRESENCE optional },

 ...

}

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

--

-- Write-Replace-Warning-Response

--

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

Write-Replace-Warning-Response ::= SEQUENCE {

 protocolIEs ProtocolIE-Container { {Write-Replace-Warning-Response-IEs} },

 protocolExtensions ProtocolExtensionContainer { {Write-Replace-Warning-Response-Extensions} } OPTIONAL,

 ...

}

Write-Replace-Warning-Response-IEs SBC-AP-PROTOCOL-IES ::= {

 { ID id-Message-Identifier CRITICALITY reject TYPE Message-Identifier PRESENCE mandatory } |

 { ID id-Serial-Number CRITICALITY reject TYPE Serial-Number PRESENCE mandatory } |

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

 { ID id-Criticality-Diagnostics CRITICALITY ignore TYPE Criticality-Diagnostics PRESENCE optional } |

 { ID id-Unknown-Tracking-Area-List CRITICALITY ignore TYPE List-of-TAIs PRESENCE optional },

 ...

}

Write-Replace-Warning-Response-Extensions SBC-AP-PROTOCOL-EXTENSION ::= {

 { ID id-Unknown-5GS-Tracking-Area-List CRITICALITY ignore EXTENSION Unknown-5GS-Tracking-Area-List PRESENCE optional },

 ...

}

== Part of code left out for brevity ===

ErrorIndicationIEs SBC-AP-PROTOCOL-IES ::= {

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

 { ID id-Criticality-Diagnostics CRITICALITY ignore TYPE Criticality-Diagnostics PRESENCE optional } ,

 ...

}

END

### 4.4.5 Information element definitions

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

--

-- Information Element Definitions

--

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

== Part of code left out for brevity ===

-- T

TAC ::= OCTET STRING (SIZE (2))

TAC-5GS ::= OCTET STRING (SIZE (3))

TAI-Broadcast-List ::= SEQUENCE (SIZE(1..maxnoofTAIforWarning)) OF TAI-Broadcast-List-Item

TAI-Broadcast-List-Item ::= SEQUENCE {

 tAI TAI,

 scheduledCellinTAI ScheduledCellinTAI,

 iE-Extensions ProtocolExtensionContainer { {TAI-Broadcast-List-Item-ExtIEs} } OPTIONAL,

 ...

}

TAI-Broadcast-List-Item-ExtIEs SBC-AP-PROTOCOL-EXTENSION ::= {

 ...

}

TAI-Broadcast-List-5GS ::= SEQUENCE (SIZE(1..maxnoof5GSTAIs)) OF

 SEQUENCE {

 tAI-5GS TAI-5GS,

 scheduledCellinTAI-5GS ScheduledCellinTAI-5GS,

 iE-Extensions ProtocolExtensionContainer { {TAI-Broadcast-List-5GS-ExtIEs} } OPTIONAL,

 ...

}

TAI-Broadcast-List-5GS-ExtIEs SBC-AP-PROTOCOL-EXTENSION ::= {

 ...

}

TAI-Cancelled-List ::= SEQUENCE (SIZE(1..maxnoofTAIforWarning)) OF TAI-Cancelled-List-Item

TAI-Cancelled-List-Item ::= SEQUENCE {

 tAI TAI,

 cancelledCellinTAI CancelledCellinTAI,

 iE-Extensions ProtocolExtensionContainer { {TAI-Cancelled-List-Item-ExtIEs} } OPTIONAL,

 ...

}

TAI-Cancelled-List-Item-ExtIEs SBC-AP-PROTOCOL-EXTENSION ::= {

 ...

}

TAI-Cancelled-List-5GS ::= SEQUENCE (SIZE(1..maxnoof5GSTAIs)) OF

 SEQUENCE {

 tAI-5GS TAI-5GS,

 cancelledCellinTAI-5GS CancelledCellinTAI-5GS,

 iE-Extensions ProtocolExtensionContainer { {TAI-Cancelled-List-5GS-ExtIEs} } OPTIONAL,

 ...

}

TAI-Cancelled-List-5GS-ExtIEs SBC-AP-PROTOCOL-EXTENSION ::= {

 ...

}

TAI-List-for-Warning ::= SEQUENCE (SIZE(1.. maxnoofTAIforWarning)) OF TAI

TAI ::= SEQUENCE {

 pLMNidentity PLMNidentity,

 tAC TAC,

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

}

TAI-ExtIEs SBC-AP-PROTOCOL-EXTENSION ::= {

 ...

}

TBCD-STRING ::= OCTET STRING (SIZE (3))

TypeOfError ::= ENUMERATED {

 not-understood,

 missing,

 ...

}

TAI-5GS ::= SEQUENCE {

 pLMNidentity PLMNidentity,

 tAC-5GS TAC-5GS,

 iE-Extensions ProtocolExtensionContainer { {TAI-5GS-ExtIEs} } OPTIONAL

}

TAI-5GS-ExtIEs SBC-AP-PROTOCOL-EXTENSION ::= {

 ...

}

Test-Flag-5GS ::= ENUMERATED {true}

-- U

Unknown-Tracking-Area-List ::= SEQUENCE (SIZE(1.. maxNrOfTAIs)) OF TAI

Unknown-5GS-Tracking-Area-List ::= SEQUENCE (SIZE(1.. maxnoof5GSTAIs)) OF TAI-5GS

-- V

-- W

Warning-Area-List ::= CHOICE {

 cell-ID-List ECGIList,

 tracking-Area-List-for-Warning TAI-List-for-Warning,

 emergency-Area-ID-List Emergency-Area-ID-List,

 ...

}

Warning-Message-Content ::= OCTET STRING (SIZE (1..9600))

Warning-Area-Coordinates ::= OCTET STRING (SIZE (1..1024))

Warning-Security-Information ::= OCTET STRING (SIZE (50))

Warning-Type ::= OCTET STRING (SIZE (2))

Warning-Area-List-5GS ::= CHOICE {

 cell-ID-List ECGIList,

 nR-CGIList NR-CGIList,

 tAIList-5GS TAI-5GS,

 emergencyAreaIDList Emergency-Area-ID-List,

 ...

}

-- X

-- Y

END

\* \* \* Next Change \* \* \* \*

### 4.4.7 Constant definitions

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

--

-- Constant definitions

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

SBC-AP-Constants {

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

eps-Access (21) modules (3) sbc-AP (3) version1 (1) sbc-AP-Constants (4)}

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- Elementary Procedures

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

id-Write-Replace-Warning INTEGER ::= 0

id-Stop-Warning INTEGER ::= 1

id-Error-Indication INTEGER ::= 2

id-Write-Replace-Warning-Indication INTEGER ::= 3

id-Stop-Warning-Indication INTEGER ::= 4

id-PWS-Restart-Indication INTEGER ::= 5

id-PWS-Failure-Indication INTEGER ::= 6

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

--

-- IEs

--

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

id-Broadcast-Message-Content INTEGER ::= 0

id-Cause INTEGER ::= 1

id-Criticality-Diagnostics INTEGER ::=2

id-Data-Coding-Scheme INTEGER ::= 3

id-Failure-List INTEGER ::= 4

id-Message-Identifier INTEGER ::= 5

id-Number-of-Broadcasts-Completed-List INTEGER ::= 6

id-Number-of-Broadcasts-Requested INTEGER ::= 7

id-Radio-Resource-Loading-List INTEGER ::= 8

id-Recovery-Indication INTEGER ::= 9

id-Repetition-Period INTEGER ::= 10

id-Serial-Number INTEGER ::= 11

id-Service-Areas-List INTEGER ::= 12

id-TypeOfError INTEGER ::= 13

id-List-of-TAIs INTEGER ::= 14

id-Warning-Area-List INTEGER ::= 15

id-Warning-Message-Content INTEGER ::= 16

id-Warning-Security-Information INTEGER ::= 17

id-Warning-Type INTEGER ::= 18

id-Omc-Id INTEGER ::= 19

id-Concurrent-Warning-Message-Indicator INTEGER ::= 20

id-Extended-Repetition-Period INTEGER ::= 21

id-Unknown-Tracking-Area-List INTEGER ::= 22

id-Broadcast-Scheduled-Area-List INTEGER ::= 23

id-Send-Write-Replace-Warning-Indication INTEGER ::= 24

id-Broadcast-Cancelled-Area-List INTEGER ::= 25

id-Send-Stop-Warning-Indication INTEGER ::= 26

id-Stop-All-Indicator INTEGER ::= 27

id-Global-ENB-ID INTEGER ::= 28

id-Broadcast-Empty-Area-List INTEGER ::= 29

id-Restarted-Cell-List INTEGER ::= 30

id-List-of-TAIs-Restart INTEGER ::= 31

id-List-of-EAIs-Restart INTEGER ::= 32

id-Failed-Cell-List INTEGER ::= 33

id-List-of-5GS-TAIs INTEGER ::= 34

id-Warning-Area-List-5GS INTEGER ::= 35

id-Global-RAN-Node-ID INTEGER ::= 36

id-Global-GNB-ID INTEGER ::= 37

id-RAT-Selector-5GS INTEGER ::= 38

id-Unknown-5GS-Tracking-Area-List INTEGER ::= 39

id-Broadcast-Scheduled-Area-List-5GS INTEGER ::= 40

id-Broadcast-Cancelled-Area-List-5GS INTEGER ::= 41

id-Broadcast-Empty-Area-List-5GS INTEGER ::= 42

id-Restarted-Cell-List-NR INTEGER ::= 43

id-Failed-Cell-List-NR INTEGER ::= 44

id-List-of-5GS-TAI-for-Restart INTEGER ::= 45

id-Warning-Area-Coordinates INTEGER ::= 46

id-Test-Flag-5GS INTEGER ::= 47

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

--

-- Extension constants

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

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

--

-- Lists

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

maxNrOfErrors INTEGER ::= 256

maxnoofCellID INTEGER ::= 65535

maxnoofCellinEAI INTEGER ::= 65535

maxnoofCellinTAI INTEGER ::= 65535

maxNrOfTAIs INTEGER ::= 65535

maxnoofEmergencyAreaID INTEGER ::= 65535

maxnoofTAIforWarning INTEGER ::= 65535

maxProtocolExtensions INTEGER ::= 65535

maxProtocolIEs INTEGER ::= 65535

maxnoofeNBIds INTEGER ::= 256

maxnoofRestartedCells INTEGER ::= 256

maxnoofRestartTAIs INTEGER ::= 2048

maxnoofRestartEAIs INTEGER ::= 256

maxnoofFailedCells INTEGER ::= 256

maxnoof5GSTAIs INTEGER ::= 2048

maxnoofCellsingNB INTEGER ::= 16384

maxnoofCellsin5GS INTEGER ::= 16776960

maxnoofCellsin5GSTAI INTEGER ::= 65535

maxnoofRANNodes INTEGER ::= 65535

maxnoofRestart5GSTAIs INTEGER ::= 2048maxnoofCellsforRestartNR INTEGER ::= 16384

END

\* \* \* End of Changes \* \* \* \*