**3GPP TSG-RAN3 Meeting #109-e *R3-205609***

**E-meeting, 17 - 28 August 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **37.473** | **CR** | **0005** | **rev** | **1** | **Current version:** | **16.2.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network | **X** | Core Network |  |

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|  | | | | | | | | | | |
| ***Title:*** | Correction on PWS related procedure | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, China Unicomm, Orange | | | | | | | | | |
| ***Source to TSG:*** | RAN3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LTE\_NR\_arch\_evo-Core | | | | |  | ***Date:*** | | | 2020-08-06 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The PWS FAILURE INDICATION message contains a *Number of Broadcast* IE which does not exist in the S1AP and NGAP. It should not be used in this version of the spec.  Both the IEs *Cell Broadcast To Be Cancelled List* and *Cancel-all Warning Message Indicator* are optional in the PWS CANCEL REQUEST message. It is not clear how to use the IE without procedural text.  The Notification Information should be supported for public warning.  The Additional SIB Message List should be supported for public warning. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. The semantics description for the *Number of Broadcasts* IE in the PWS FAILURE INDICATION message is modified to “This IE is not used in the specification and is ignored”. 2. Add the procedural texts and semantics description related to *Cancel-all Warning Message Indicator* and *Cell Broadcast To Be Cancelled List* IEs in the PWS CANCEL REQUEST message. 3. Add the *Notification Information* IE in the *PWS System Information* IE and the PWS CANCEL REQUEST message, and also the related procedural texts and ASN.1. 4. Add the *Additional SIB Message List* IE in the *PWS System Information* IE, and also the related procedural texts and ASN.1.   Impact Analysis:  Impact assessment towards the previous version of the specification (same release):   * This CR has **isolated impact** with the previous version of the specification (same release) * This CR has an impact under **functional** point of view. * The impact **can** be considered isolated because the change affects PWS failure indication, Write-replace warning and PWS cancel. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | There still remain some ambiguities on the handling of Write-replace warning, PWS cancel and PWS failure indication. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.5.1.2; 8.5.2.2; 8.5.2.4; 9.2.4.3; 9.2.4.6; 9.3.1.3; 9.3.1.xx; 9.3.1.yy; 9.3.1.zz; 9.4.4; 9.4.5; 9.4.7 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

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| **1st Change** |

### 8.5.1 Write-Replace Warning

#### 8.5.1.1 General

The purpose of Write-Replace Warning procedure is to start or overwrite the broadcasting of warning messages. The procedure uses non UE-associated signalling.

#### 8.5.1.2 Successful Operation



Figure 8.5.1.2-1: Write-Replace Warning procedure: successful operation

The ng-eNB-CU initiates the procedure by sending a WRITE-REPLACE WARNING REQUEST message to the ng-eNB-DU.

Upon receipt of the WRITE-REPLACE WARNING REQUEST message, the ng-eNB-DU shall prioritise its resources to process the warning message.

The ng-eNB-DU acknowledges the WRITE-REPLACE WARNING REQUEST message by sending a WRITE-REPLACE WARNING RESPONSE message to the ng-eNB-CU.

If the *Notification Information* IE is included in the *PWS System Information* IE in the WRITE-REPLACE WARNING REQUEST message, the ng-eNB-DU shall use this information to avoid that duplications trigger new broadcast or replace existing broadcast.

If the ng-eNB-DU receives a WRITE-REPLACE WARNING REQUEST message with the *Notification Information* IE in the *PWS System Information* IE which are different from those of ongoing broadcast warning messages, and if the *SIB Type* IE is set to "12", the ng-eNB-DU shall broadcast the received warning message concurrently with other ongoing messages.

If the ng-eNB-DU receives a WRITE-REPLACE WARNING REQUEST message with the *Notification Information* IE in the *PWS System Information* IE which are different from those of ongoing broadcast warning messages, and if the *SIB Type* IE is set to the value other than "12", the ng-eNB-DU shall use the newly received one to replace the ongoing broadcast warning message with the same value of *SIB Type* IE.

If the *SIB Type* IE in the *PWS System Information* IE in the WRITE-REPLACE WARNING REQUEST message is set to "12" and if a value "0" is received in the *Number of Broadcast Requested* IE and if the *Repetition Period* IE is different from "0", the ng-eNB-DU shall broadcast the received warning message indefinitely.

If *Additional SIB Message List* IE is included in *PWS System Information* IE, the ng-eNB-DU shall store all SIB message(s) in *PWS System Information* IE, and consider that the first segment of public warning message is included in *SIB message* IE, and the remaining segments are listed in *Additional SIB Message List* IE in segmentation sequence order.

#### 8.5.1.3 Unsuccessful Operation

Not applicable.

#### 8.5.1.4 Abnormal Conditions

Not applicable.

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| **2nd Change** |

### 8.5.2 PWS Cancel

#### 8.5.2.1 General

The purpose of the PWS Cancel procedure is to cancel an already ongoing broadcast of a warning message. The procedure uses non UE-associated signalling.

#### 8.5.2.2 Successful Operation



Figure 8.5.2.2-1: PWS Cancel procedure: successful operation

The ng-eNB-CU initiates the procedure by sending a PWS CANCEL REQUEST message to the ng-eNB-DU.

The ng-eNB-DU shall acknowledge the PWS CANCEL REQUEST message by sending the PWS CANCEL RESPONSE message.If the *Cancel-All Warning Messages Indicator* IE is present in the PWS CANCEL REQUEST message, then the ng-eNB-DU shall stop broadcasting and discard all warning messages for the area as indicated in the *Cell Broadcast To Be Cancelled List* IE or in all the cells of the ng-eNB-DU if the *Cell Broadcast To Be Cancelled List* IE is not included. The ng-eNB-DU shall acknowledge the PWS CANCEL REQUEST message by sending the PWS CANCEL RESPONSE message, and shall, if there is area to report where an ongoing broadcast was stopped successfully, include the *Cell Broadcast Cancelled List* IE with the *Number of Broadcasts* IE set to 0.

If the *Cell Broadcast To Be Cancelled List* IE is not included in the PWS CANCEL REQUEST message, the ng-eNB-DU shall stop broadcasting and discard the warning message identified by the *Message Identifier* IE and the *Serial Number* IE in the *Notification Information* IE in all of the cells in the ng-eNB-DU.

If the *Notification Information* IE is included in the PWS CANCEL REQUEST, the ng-eNB-DU shall cancel broadcast of the public warning message identified by the *Notification Information* IE.

If an area included in the *Cell Broadcast To Be Cancelled List* IE in the PWS CANCEL REQUEST message does not appear in the *Cell Broadcast Cancelled List* IE in the PWS CANCEL RESPONSE, the ng-eNB-CU shall consider that the ng-eNB-DU had no ongoing broadcast to stop for the public warning message identified, if present, by the *Notification Information* IE in that area.

If the *Cell Broadcast Cancelled List* IE is not included in the PWS CANCEL RESPONSE message, the ng-eNB-CU shall consider that the ng-eNB-DU had no ongoing broadcast to stop for the public warning message identified, if present, by the *Notification Information* IE.

#### 8.5.2.3 Unsuccessful Operation

Not applicable.

8.5.2.4 Abnormal Conditions

If the ng-eNB-DU receives a PWS CANCEL REQUEST message which contains neither the *Cancel-all Warning Messages Indicator* IE nor the *Notification Information* IE, the ng-eNB-DU shall consider it as a logical error..

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| **3rd Change** |

#### 9.2.4.3 PWS CANCEL REQUEST

This message is forwarded by the ng-eNB-CU to ng-eNB-DU to cancel an already ongoing broadcast of a warning message

Direction: ng-eNB-CU → ng-eNB-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 |
| Number of Broadcasts Requested | M |  | 9.3.1.60 | This IE is set to '0' and not used elsewhere in the specification | YES | reject |
| **Cell Broadcast To Be Cancelled List** |  | *0..1* |  |  | YES | reject |
| **>Cell Broadcast to Be Cancelled Item IEs** |  | *1.. <maxCellinng-eNBDU>* |  |  | EACH | reject |
| >>E-UTRAN CGI | M |  | 9.3.1.12 |  | - |  |
| Cancel-all Warning Messages Indicator | O |  |  | ENUMERATED (true, ...) | YES | reject |
| **Notification Information** | O |  |  | This IE is ignored If the *Cancel-all Warning Messages Indicator* IE is included. | YES | reject |
| >Message Identifier | M |  | 9.3.1.xx |  |  |  |
| >Serial Number | M |  | 9.3.1.yy |  |  |  |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxCellinng-eNBDU | Maximum no. cells that can be served by an ng-eNB-DU. Value is 512. |

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| **4th Change** |

#### 9.2.4.6 PWS FAILURE INDICATION

This message is sent by the ng-eNB-DU to inform the ng-eNB-CU that ongoing PWS operation for one or more cells of the ng-eNB-DU has failed.

Direction: ng-eNB-DU → ng-eNB-CU

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| Message Type | M |  | 9.3.1.1 |  | YES | ignore |
| Transaction ID | M |  | 9.3.1.23 |  | YES | reject |
| **PWS failed E-UTRAN CGI List** |  | *0..1* |  |  | YES | reject |
| **>PWS failed E-UTRAN CGI Item IEs** |  | *1..<maxCellinng-eNBDU>* |  |  | EACH | reject |
| >>E-UTRAN CGI | M |  | 9.3.1.12 |  | - |  |
| >>Number of Broadcasts | M |  | INTEGER (0..65535) | This IE is set to '0' and not used elsewhere in the specification | - |  |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxCellinng-eNBDU | Maximum no. of cells that can be served by an ng-eNB-DU. Value is 512. |

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| **5h Change** |

#### 9.3.1.3 PWS System Information

This IE contains the system information used for public warning.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| SIB type | M |  | INTEGER (10..12, …) | Indicates a certain SIB block for public warning message, e.g. 10 means sibType10, 11 for sibType11, etc. | - |  |
| SIB message | M |  | OCTET STRING | SIB message for public warning, as defined in TS 36.331 [2]. | - |  |
| **Notification Information** | O |  |  |  | YES | ignore |
| >Message Identifier | M |  | 9.3.1.xx |  | - |  |
| >Serial Number | M |  | 9.3.1.yy |  | - |  |
| Additional SIB Message List | O |  | 9.3.1.zz | Additional SIB messages containing different segments of a public warning message if segmentation is applied, as defined in TS 36.331 [2]. | Yes | reject |

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| **6h Change** |

#### 9.3.1.xx Message Identifier

This IE identifies the warning message.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| Message Identifier | M |  | BIT STRING (SIZE(16)) | This IE is set by the 5GC, transferred to the UE by the NG-RAN node. |

#### 9.3.1.yy Serial Number

This IE identifies a particular message from the source and type indicated by the Message Identifier and is altered for every new message with a given Message Identifier.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| Serial Number | M |  | BIT STRING (SIZE(16)) | This IE is set by the 5GC, transferred to the UE by the NG-RAN node. |

#### 9.3.1.zz Additional SIB Message List

This IE indicates the list of additional SIB messages containing all the remaining segments of a public warning message if segmentation is applied to such message.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| **Additional SIB Message List Item IEs** |  | *1..*  *<*maxnoofAdditionalSIBs *>* |  |  |
| >Additional SIB | M |  | OCTET STRING | SIB message containing one segment of a public warning message, as defined in TS 36.331 [2]. |

|  |  |
| --- | --- |
| **Range bound** | **Explanation** |
| maxnoofAdditionalSIBs | Maximum no. of additional segments of a public warning message. Value is 63. |

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| **7h Change** |

### 9.4.4 PDU Definitions

-- ASN1START

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

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-- PDU definitions for W1AP.

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

W1AP-PDU-Contents {

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

ngran-access (22) modules (3) w1ap (3) version1 (1) w1ap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

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-- IE parameter types from other modules.

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

IMPORTS

Candidate-SpCell-Item,

Cause,

Cells-Failed-to-be-Activated-List-Item,

Cells-Status-Item,

Cells-to-be-Activated-List-Item,

Cells-to-be-Deactivated-List-Item,

C-RNTI,

CriticalityDiagnostics,

CUtoDURRCInformation,

DRB-Activity-Item,

DRBID,

DRBs-FailedToBeModified-Item,

DRBs-FailedToBeSetup-Item,

DRBs-FailedToBeSetupMod-Item,

DRB-Notify-Item,

DRBs-ModifiedConf-Item,

DRBs-Modified-Item,

DRBs-Required-ToBeModified-Item,

DRBs-Required-ToBeReleased-Item,

DRBs-Setup-Item,

DRBs-SetupMod-Item,

DRBs-ToBeModified-Item,

DRBs-ToBeReleased-Item,

DRBs-ToBeSetup-Item,

DRBs-ToBeSetupMod-Item,

DRXCycle,

DUtoCURRCInformation,

EUTRANQoS,

NGENB-CU-UE-W1AP-ID,

NGENB-DU-UE-W1AP-ID,

NGENB-DU-ID,

NGENB-DU-Served-Cells-Item,

NGENB-DU-System-Information,

InactivityMonitoringRequest,

InactivityMonitoringResponse,

NotificationControl,

EUTRANCGI,

EUTRANPCI,

Potential-SpCell-Item,

RAT-FrequencyPriorityInformation,

ResourceCoordinationTransferContainer,

RRCContainer,

RRCReconfigurationCompleteIndicator,

SCellIndex,

SCell-ToBeRemoved-Item,

SCell-ToBeSetup-Item,

SCell-ToBeSetupMod-Item,

SCell-FailedtoSetup-Item,

SCell-FailedtoSetupMod-Item,

ServCellIndex,

Served-Cell-Information,

Served-Cells-To-Add-Item,

Served-Cells-To-Delete-Item,

Served-Cells-To-Modify-Item,

SRBID,

SRBs-FailedToBeSetup-Item,

SRBs-FailedToBeSetupMod-Item,

SRBs-Required-ToBeReleased-Item,

SRBs-ToBeReleased-Item,

SRBs-ToBeSetup-Item,

SRBs-ToBeSetupMod-Item,

SRBs-Modified-Item,

SRBs-Setup-Item,

SRBs-SetupMod-Item,

TransactionID,

TransmissionActionIndicator,

DUtoCURRCContainer,

PagingCell-Item,

UEIdentityIndexValue,

UE-associatedLogicalW1-ConnectionItem,

PagingDRX,

PagingIdentity,

PWSSystemInformation,

Broadcast-To-Be-Cancelled-Item,

Cells-Broadcast-Cancelled-Item,

E-UTRAN-CGI-List-For-Restart-Item,

PWS-Failed-E-UTRAN-CGI-Item,

RepetitionPeriod,

NumberofBroadcastRequest,

Cells-To-Be-Broadcast-Item,

Cells-Broadcast-Completed-Item,

Cancel-all-Warning-Messages-Indicator,

NotificationInformation,

EUTRA-NR-CellResourceCoordinationReq-Container,

EUTRA-NR-CellResourceCoordinationReqAck-Container,

RequestType,

PLMN-Identity,

BitRate,

NGENBDUOverloadInformation,

ResourceCoordinationTransferInformation,

Associated-SCell-Item,

IgnoreResourceCoordinationRequestContainer

FROM W1AP-IEs

PrivateIE-Container{},

ProtocolExtensionContainer{},

ProtocolIE-Container{},

ProtocolIE-ContainerPair{},

ProtocolIE-SingleContainer{},

W1AP-PRIVATE-IES,

W1AP-PROTOCOL-EXTENSION,

W1AP-PROTOCOL-IES,

W1AP-PROTOCOL-IES-PAIR

FROM W1AP-Containers

id-Candidate-SpCell-List,

id-Cause,

id-Cancel-all-Warning-Messages-Indicator,

id-NotificationInformation,

id-Cells-Failed-to-be-Activated-List,

id-Cells-Status-List,

id-Cells-to-be-Activated-List,

id-Cells-to-be-Deactivated-List,

id-ConfirmedUEID,

id-C-RNTI,

id-CUtoDURRCInformation,

id-CriticalityDiagnostics,

id-DRB-Activity-List,

id-DRBs-FailedToBeModified-List,

id-DRBs-FailedToBeSetup-List,

id-DRBs-FailedToBeSetupMod-List,

id-DRBs-ModifiedConf-List,

id-DRBs-Modified-List,

id-DRB-Notify-List,

id-DRBs-Required-ToBeModified-List,

id-DRBs-Required-ToBeReleased-List,

id-DRBs-Setup-List,

id-DRBs-SetupMod-List,

id-DRBs-ToBeModified-List,

id-DRBs-ToBeReleased-List,

id-DRBs-ToBeSetup-List,

id-DRBs-ToBeSetupMod-List,

id-DRXCycle,

id-DUtoCURRCInformation,

id-ngeNB-CU-UE-W1AP-ID,

id-ngeNB-DU-UE-W1AP-ID,

id-ngeNB-DU-ID,

id-ngeNB-DU-Served-Cells-List,

id-InactivityMonitoringRequest,

id-InactivityMonitoringResponse,

id-oldngeNB-DU-UE-W1AP-ID,

id-Potential-SpCell-List,

id-RAT-FrequencyPriorityInformation,

id-ResetType,

id-ResourceCoordinationTransferContainer,

id-RRCContainer,

id-RRCReconfigurationCompleteIndicator,

id-SCell-FailedtoSetup-List,

id-SCell-FailedtoSetupMod-List,

id-SCell-ToBeRemoved-List,

id-SCell-ToBeSetup-List,

id-SCell-ToBeSetupMod-List,

id-Served-Cells-To-Add-List,

id-Served-Cells-To-Delete-List,

id-Served-Cells-To-Modify-List,

id-ServCellIndex,

id-SpCell-ID,

id-SRBID,

id-SRBs-FailedToBeSetup-List,

id-SRBs-FailedToBeSetupMod-List,

id-SRBs-Required-ToBeReleased-List,

id-SRBs-ToBeReleased-List,

id-SRBs-ToBeSetup-List,

id-SRBs-ToBeSetupMod-List,

id-SRBs-Modified-List,

id-SRBs-Setup-List,

id-SRBs-SetupMod-List,

id-TransactionID,

id-TransmissionActionIndicator,

id-UE-associatedLogicalW1-ConnectionListResAck,

id-DUtoCURRCContainer,

id-EUTRANCGI,

id-PagingCell-List,

id-PagingDRX,

id-UEIdentityIndexValue,

id-PagingIdentity,

id-PWSSystemInformation,

id-RepetitionPeriod,

id-NumberofBroadcastRequest,

id-Cells-To-Be-Broadcast-List,

id-Cells-Broadcast-Completed-List,

id-Broadcast-To-Be-Cancelled-List,

id-Cells-Broadcast-Cancelled-List,

id-E-UTRAN-CGI-List-For-Restart-List,

id-PWS-Failed-E-UTRAN-CGI-List,

id-EUTRA-NR-CellResourceCoordinationReq-Container,

id-EUTRA-NR-CellResourceCoordinationReqAck-Container,

id-RequestType,

id-ServingPLMN,

id-NGENB-DU-UE-AMBR-UL,

id-NGENBDUOverloadInformation,

id-ResourceCoordinationTransferInformation,

id-Associated-SCell-List,

id-IgnoreResourceCoordinationRequestContainer,

maxCellinngeNBDU,

maxnoofCandidateSpCells,

maxnoofDRBs,

maxnoofErrors,

maxnoofIndividualW1ConnectionsToReset,

maxnoofPotentialSpCells,

maxnoofSCells,

maxnoofSRBs,

maxnoofPagingCells,

maxnoofTNLAssociations,

maxCellineNB,

maxnoofUEIDs

FROM W1AP-Constants;

<Unchanged Text Omitted>

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

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-- PWS Cancel Request

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

PWSCancelRequest ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {PWSCancelRequestIEs} },

...

}

PWSCancelRequestIEs W1AP-PROTOCOL-IES ::= {

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

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

{ ID id-Broadcast-To-Be-Cancelled-List CRITICALITY reject TYPE Broadcast-To-Be-Cancelled-List PRESENCE optional }|

{ ID id-Cancel-all-Warning-Messages-Indicator CRITICALITY reject TYPE Cancel-all-Warning-Messages-Indicator PRESENCE optional }|

{ ID id-NotificationInformation CRITICALITY reject TYPE NotificationInformation PRESENCE optional },

...

}

Broadcast-To-Be-Cancelled-List ::= SEQUENCE (SIZE(1.. maxCellinngeNBDU)) OF Broadcast-To-Be-Cancelled-Item

<Unchanged Text Omitted>

|  |
| --- |
| **8h Change** |

### 9.4.5 Information Element Definitions

-- ASN1START

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-- Information Element Definitions

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

W1AP-IEs {

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

ngran-access (22) modules (3) w1ap (3) version1 (1) w1ap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

id-NotificationInformation,

id-AdditionalSIBMessageList,

maxEARFCN,

maxnoofAdditionalSIBs,

maxnoofErrors,

maxnoofBPLMNs,

maxnoofDLUPTNLInformation,

maxnoofE-UTRANCellBands,

maxnoofULUPTNLInformation,

maxnoofQoSFlows,

maxnoofSliceItems,

maxnoofSIBTypes,

maxCellineNB,

maxnoofExtendedBPLMNs,

maxBandsEutra,

maxnoofBPLMNsNRminus1

FROM W1AP-Constants

Criticality,

ProcedureCode,

ProtocolIE-ID,

TriggeringMessage

FROM W1AP-CommonDataTypes

ProtocolExtensionContainer{},

W1AP-PROTOCOL-EXTENSION,

ProtocolIE-SingleContainer{},

W1AP-PROTOCOL-IES

FROM W1AP-Containers;

-- A

AdditionalSIBMessageList ::= SEQUENCE (SIZE(1..maxnoofAdditionalSIBs)) OF AdditionalSIBMessageList-Item

AdditionalSIBMessageList-Item ::= SEQUENCE {

additionalSIB OCTET STRING,

iE-Extensions ProtocolExtensionContainer { { AdditionalSIBMessageList-Item-ExtIEs} } OPTIONAL

}

AdditionalSIBMessageList-Item-ExtIEs W1AP-PROTOCOL-EXTENSION ::= {

...

}

<Unchanged Text Omitted>

MeasurementTimingConfiguration ::= OCTET STRING

MessageIdentifier ::= BIT STRING (SIZE (16))

<Unchanged Text Omitted>

NotificationControl ::= ENUMERATED {active, not-active,...}

NotificationInformation ::= SEQUENCE {

message-Identifier MessageIdentifier,

serialNumber SerialNumber,

iE-Extensions ProtocolExtensionContainer { { NotificationInformationExtIEs} } OPTIONAL,

...

}

NotificationInformationExtIEs W1AP-PROTOCOL-EXTENSION ::= {

...

}

<Unchanged Text Omitted>

PWSSystemInformation ::= SEQUENCE {

sIBtype SIBType-PWS,

sIBmessage OCTET STRING,

iE-Extensions ProtocolExtensionContainer { { PWSSystemInformationExtIEs } } OPTIONAL,

...

}

PWSSystemInformationExtIEs W1AP-PROTOCOL-EXTENSION ::= {

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

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

...

}

<Unchanged Text Omitted>

SelectedFeatureSetEntryIndex ::= OCTET STRING

SerialNumber ::= BIT STRING (SIZE (16))

<Unchanged Text Omitted>

|  |
| --- |
| **9h Change** |

### 9.4.7 Constant Definitions

-- ASN1START

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

--

-- Constant definitions

--

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

<Unchanged Text Omitted>

maxnoofBPLMNsNRminus1 INTEGER ::= 11

maxnoofAdditionalSIBs INTEGER ::= 63

<Unchanged Text Omitted>

id-IgnoreResourceCoordinationRequestContainer ProtocolIE-ID ::= 88

id-NotificationInformation ProtocolIE-ID ::= xx

id-AdditionalSIBMessageList ProtocolIE-ID ::= yy

<Unchanged Text Omitted>

|  |
| --- |
| **Change Ends** |