**3GPP TSG-RAN WG3 Meeting #129 R3-255817**

**Bengaluru, India, August 25th –29th, 2025**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.413** | **CR** | **1296** | **rev** | **1** | **Current version:** | **18.6.0** |  |
|  | | | | | | | | |
| *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 | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Support Aerial UE Flight Information Failure Reporting in FAILURE INDICATION message | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson, CMCC, CATT, LG Electronics, ZTE, Huawei | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | UAS\_Ph3 | | | | |  | ***Date:*** | | | 2025-08-26 |
|  |  | | | |  | |  | | |  |
| ***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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | In the NGAP CR “Support Aerial UE Flight Information Reporting to CN”, there are FFS on how to indicate to CN the failure and the reporting is stopped by NG-RAN.  This CR implements the agreement reached in RAN3 related to UAV reporting failure handling. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Include in the Location Reporting procedure:  ”Aerial UE flight information ongoing reporting failed” indication in the Location Reporting Failure message.  ” Aerial UE flight information reporting initiation failure” a new cause value.  Impact assessment towards the previous version of the specification (same release):  This CR has an isolated impact towards the previous version of the specification (same release). | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | No support for Aerial UE flight information reporting from NG-RAN to CN for the Aerial UE. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.12.2, 9.2.11.2, 9.3.1.2, 9.4.4, 9.4.5, 9.4.7 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 38.423 CR 1460  TS 38.300 draft CR | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | Based on R3-255135 | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

### 8.12.2 Location Reporting Failure Indication

#### 8.12.2.1 General

The purpose of the Location Reporting Failure Indication procedure is to allow the NG-RAN node to inform the AMF that the location reporting request contained in the Location Reporting Control procedure, the Handover Resource Allocation procedure or the Initial Context Setup procedure has failed. The procedure uses UE-associated signalling.

#### 8.12.2.2 Successful Operation



Figure 8.12.2.2-1: Location reporting failure indication

The NG-RAN node initiates the procedure by sending a LOCATION REPORTING FAILURE INDICATION message to the AMF. Upon reception of the LOCATION REPORTING FAILURE INDICATION message the AMF shall, based on the failure reason indicated by the *Cause* IE, take appropriate action.

If the aerial UE measurement is failed ~~or stopped~~, the NG-RAN node initiates the procedure by sending a LOCATION REPORTING FAILURE INDICATION message to the AMF. Upon reception of the LOCATION REPORTING FAILURE INDICATION message the AMF shall, based on the *Aerial UE flight information ongoing reporting failed* IE, take appropriate action according to 23.501 [9].

#### 8.12.2.3 Abnormal Conditions

Void.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Skip to Next Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 9.2.11.2 LOCATION REPORTING FAILURE INDICATION

This message is sent by the NG-RAN node and is used to indicate the failure of location reporting.

Direction: NG-RAN node → AMF

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| Message Type | M |  | 9.3.1.1 |  | YES | ignore |
| AMF UE NGAP ID | M |  | 9.3.3.1 |  | YES | reject |
| RAN UE NGAP ID | M |  | 9.3.3.2 |  | YES | reject |
| Cause | M |  | 9.3.1.2 |  | YES | ignore |
| Aerial UE flight information ongoing reporting failed | O |  | ENUMERATED(true, …) |  | YES | ignore |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Skip to Next Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### 9.3.1.2 Cause

The purpose of the *Cause* IE is to indicate the reason for a particular event for the NGAP protocol.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| CHOICE *Cause Group* | M |  |  |  |
| *>Radio Network Layer* |  |  |  |  |
| >>Radio Network Layer Cause | M |  | ENUMERATED (Unspecified,  TXnRELOCOverall expiry,  Successful handover,  Release due to NG-RAN generated reason,  Release due to 5GC generated reason,  Handover cancelled,  Partial handover,  Handover failure in target 5GC/NG-RAN node or target system,  Handover target not allowed,  TNGRELOCoverall expiry,  TNGRELOCprep expiry,  Cell not available,  Unknown target ID,  No radio resources available in target cell,  Unknown local UE NGAP ID,  Inconsistent remote UE NGAP ID,  Handover desirable for radio reasons,  Time critical handover,  Resource optimisation handover,  Reduce load in serving cell,  User inactivity,  Radio connection with UE lost,  Radio resources not available,  Invalid QoS combination,  Failure in the radio interface procedure,  Interaction with other procedure,  Unknown PDU Session ID,  Unknown QoS Flow ID,  Multiple PDU Session ID Instances,  Multiple QoS Flow ID Instances,  Encryption and/or integrity protection algorithms not supported,  NG intra-system handover triggered,  NG inter-system handover triggered,  Xn handover triggered,  Not supported 5QI value,  UE context transfer,  IMS voice EPS fallback or RAT fallback triggered,  UP integrity protection not possible,  UP confidentiality protection not possible,  Slice(s) not supported,  UE in RRC\_INACTIVE state not reachable,  Redirection,  Resources not available for the slice(s),  UE maximum integrity protected data rate reason,  Release due to CN-detected mobility,  …, N26 interface not available, Release due to pre-emption,Multiple Location Reporting Reference ID Instances,  RSN not available for the UP,  NPN access denied,  CAG only access denied, Insufficient UE Capabilities, RedCap UE not supported,  Unknown MBS Session ID,  Indicated MBS Session Area Information not served by the gNB,  Inconsistent slice info for the session,  Misaligned association for the multicast and unicast sessions or flows,  eRedCap UE not supported,  2Rx XR UE not supported, Aerial UE flight information reporting initiation failed) |  |
| *>Transport Layer* |  |  |  |  |
| >>Transport Layer Cause | M |  | ENUMERATED (Transport resource unavailable,  Unspecified, …) |  |
| *>NAS* |  |  |  |  |
| >>NAS Cause | M |  | ENUMERATED  (Normal release,  Authentication failure,  Deregister,  Unspecified,  …, UE not in PLMN serving area,  Mobile IAB not authorized,  IAB not authorized) |  |
| *>Protocol* |  |  |  |  |
| >>Protocol Cause | M |  | ENUMERATED (Transfer syntax error, Abstract syntax error (reject), Abstract syntax error (ignore and notify), Message not compatible with receiver state,  Semantic error,  Abstract syntax error (falsely constructed message),  Unspecified,  …) |  |
| *>Miscellaneous* |  |  |  |  |
| >>Miscellaneous Cause | M |  | ENUMERATED (Control processing overload,  Not enough user plane processing resources, Hardware failure, O&M intervention, Unknown PLMN or SNPN,  Unspecified,  …) |  |

The meaning of the different cause values is described in the following tables. In general, "not supported" cause values indicate that the related capability is missing. On the other hand, "not available" cause values indicate that the related capability is present, but insufficient resources were available to perform the requested action.

| Radio Network Layer cause | Meaning |
| --- | --- |
| Unspecified | Sent for radio network layer cause when none of the specified cause values applies. |
| TXnRELOCOverall expiry | The timer guarding the handover that takes place over Xn has abnormally expired. |
| Successful handover | Successful handover. |
| Release due to NG-RAN generated reason | Release is initiated due to NG-RAN generated reason. |
| Release due to 5GC generated reason | Release is initiated due to 5GC generated reason. |
| Handover cancelled | The reason for the action is cancellation of Handover. |
| Partial handover | Provides a reason for the handover cancellation. The HANDOVER COMMAND message from AMF contained *PDU Session Resource to Release List* IEor *QoS flow to Release List* and the source NG-RAN node estimated service continuity for the UE would be better by not proceeding with handover towards this particular target NG-RAN node. |
| Handover failure in target 5GC/ NG-RAN node or target system | The handover failed due to a failure in target 5GC/NG-RAN node or target system. |
| Handover target not allowed | Handover to the indicated target cell is not allowed for the UE in question. |
| TNGRELOCoverall expiry | The reason for the action is expiry of timer TNGRELOCoverall. |
| TNGRELOCprep expiry | Handover Preparation procedure is cancelled when timer TNGRELOCprep expires. |
| Cell not available | The concerned cell is not available. |
| Unknown target ID | Handover rejected because the target ID is not known to the AMF. |
| No radio resources available in target cell | Load on target cell is too high. |
| Unknown local UE NGAP ID | The action failed because the receiving node does not recognise the local UE NGAP ID. |
| Inconsistent remote UE NGAP ID | The action failed because the receiving node considers that the received remote UE NGAP ID is inconsistent. |
| Handover desirable for radio reasons | The reason for requesting handover is radio related. |
| Time critical handover | Handover is requested for time critical reason i.e., this cause value is reserved to represent all critical cases where the connection is likely to be dropped if handover is not performed. |
| Resource optimisation handover | The reason for requesting handover is to improve the load distribution with the neighbour cells. |
| Reduce load in serving cell | Load on serving cell needs to be reduced. When applied to handover preparation, it indicates the handover is triggered due to load balancing. |
| User inactivity | The action is requested due to inactivity on all user data radio bearers (i.e., DRBs and, if applicable, MRBs as per section 16.10.5.2 in TS 38.300 [8]), e.g., NG is requested to be released in order to optimise the radio resources. For L2 U2N Relay UE, this action is requested due to user inactivity on all PDU sessions of L2 U2N Relay UE and its served remote UE(s). |
| Radio connection with UE lost | The action is requested due to losing the radio connection to the UE. |
| Radio resources not available | No requested radio resources are available. |
| Invalid QoS combination | The action was failed because of invalid QoS combination. |
| Failure in the radio interface procedure | Radio interface procedure has failed. |
| Interaction with other procedure | The action is due to an ongoing interaction with another procedure. |
| Unknown PDU Session ID | The action failed because the PDU Session ID is unknown in the NG-RAN node. |
| Unknown QoS Flow ID | The action failed because the QoS Flow ID is unknown in the NG-RAN node. |
| Multiple PDU Session ID instances | The action failed because multiple instances of the same PDU Session had been provided to/from the NG-RAN node. |
| Multiple QoS Flow ID instances | The action failed because multiple instances of the same QoS flow had been provided to the NG-RAN node. |
| Encryption and/or integrity protection algorithms not supported | The NG-RAN node is unable to support any of the encryption and/or integrity protection algorithms supported by the UE. |
| NG intra-system handover triggered | The action is due to a NG intra-system handover that has been triggered. |
| NG inter-system handover triggered | The action is due to a NG inter-system handover that has been triggered. |
| Xn handover triggered | The action is due to an Xn handover that has been triggered. |
| Not supported 5QI value | The QoS flow setup failed because the requested 5QI is not supported. |
| UE context transfer | The action is due to a UE resumes from the NG-RAN node different from the one which sent the UE into RRC\_INACTIVE state. |
| IMS voice EPS fallback or RAT fallback triggered | The setup of QoS flow is failed due to EPS fallback or RAT fallback for IMS voice using handover or redirection. |
| UP integrity protection not possible | The PDU session cannot be accepted according to the required user plane integrity protection policy. |
| UP confidentiality protection not possible | The PDU session cannot be accepted according to the required user plane confidentiality protection policy. |
| Slice(s) not supported | Slice(s) not supported. |
| UE in RRC\_INACTIVE state not reachable | The action is requested due to RAN paging failure. |
| Redirection | The release is requested due to inter-system redirection or intra-system redirection. |
| Resources not available for the slice(s) | The requested resources are not available for the slice(s). |
| UE maximum integrity protected data rate reason | The request is not accepted in order to comply with the maximum data rate for integrity protection supported by the UE. |
| Release due to CN-detected mobility | The context release is requested by the AMF because the UE is already served by another CN node (same or different system), or another NG interface of the same CN node. |
| N26 interface not available | The action failed due to a temporary failure of the N26 interface. |
| Release due to pre-emption | Release is initiated due to pre-emption. |
| Multiple Location Reporting Reference ID Instances | The action failed because multiple areas of interest are set with the same Location Reporting Reference ID. |
| RSN not available for the UP | The redundant user plane resources indicated by RSN are not available. |
| NPN access denied | Access was denied, or release is requested, for NPN reasons. |
| CAG only access denied | Access was denied because the cell is a non-CAG cell and UE is only allowed to access CAG cells. |
| Insufficient UE Capabilities | The procedure can’t proceed due to insufficient UE capabilities. |
| RedCap UE not supported | The action failed because target NG-RAN node does not support RedCap UE. |
| Unknown MBS Session ID | The action failed because the MBS Session ID is unknown. |
| Indicated MBS Service Area Information not served by the gNB | The action failed because none of the cells in the indicated MBS Service Area Information are served by the NG-RAN node. |
| Inconsistent slice info for the session | The action failed because the slice info of the multicast session is inconsistent. |
| Misaligned association for the multicast and unicast sessions or flows | The action failed because the Associated Unicast QoS Flow ID has already been used, or the Associated Unicast QoS Flow ID is not defined, or the Associated Unicast QoS Flow ID is not released, or multiple MBS QoS flows associated to the same unicast QoS flow, or same multicast session associated to multiple PDU Sessions. |
| eRedCap UE not supported | The action failed because target NG-RAN node does not support eRedCap UE. |
| 2Rx XR UE not supported | The action failed because target NG-RAN node does not support 2Rx XR UE. |
| Aerial UE flight information reporting initiation failed | The action failed because gNB cannot initiate the aeial UE flight information reporting. |

|  |  |
| --- | --- |
| Transport Layer cause | Meaning |
| Transport resource unavailable | The required transport resources are not available. |
| Unspecified | Sent when none of the specified cause values applies but still the cause is Transport Network Layer related. |

|  |  |
| --- | --- |
| NAS cause | Meaning |
| Normal release | The release is normal. |
| Authentication failure | The action is due to authentication failure. |
| Deregister | The action is due to deregister. |
| Unspecified | Sent when none of the specified cause values applies but still the cause is NAS related. |
| UE not in PLMN serving area | The release is due to the UE not being within the serving area of its current PLMN (for NTN). |
| Mobile IAB not authorized | The release is due to the NG-RAN node having completed the operation for a non-authorized mobile IAB-node. |
| IAB not authorized | The action is requested due to the NG-RAN node having completed the operation for a non-authorized IAB-node. |

|  |  |
| --- | --- |
| Protocol cause | Meaning |
| Transfer syntax error | The received message included a transfer syntax error. |
| Abstract syntax error (reject) | The received message included an abstract syntax error and the concerning criticality indicated "reject". |
| Abstract syntax error (ignore and notify) | The received message included an abstract syntax error and the concerning criticality indicated "ignore and notify". |
| Message not compatible with receiver state | The received message was not compatible with the receiver state. |
| Semantic error | The received message included a semantic error. |
| Abstract syntax error (falsely constructed message) | The received message contained IEs or IE groups in wrong order or with too many occurrences. |
| Unspecified | Sent when none of the specified cause values applies but still the cause is Protocol related. |

|  |  |
| --- | --- |
| Miscellaneous cause | Meaning |
| Control processing overload | Control processing overload. |
| Not enoughuser plane processing resources | Not enough resources are available related to user plane processing. |
| Hardware failure | Action related to hardware failure. |
| O&M intervention | The action is due to O&M intervention. |
| Unknown PLMN or SNPN | The AMF does not identify any PLMN or SNPN provided by the NG-RAN node. |
| Unspecified failure | Sent when none of the specified cause values applies and the cause is not related to any of the categories Radio Network Layer, Transport Network Layer, NAS or Protocol. |

### 

### 9.4.4 PDU Definitions

-- ASN1START

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

--

-- PDU definitions for NGAP.

--

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

NGAP-PDU-Contents {

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

ngran-Access (22) modules (3) ngap (1) version1 (1) ngap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- IE parameter types from other modules.

--

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

IMPORTS

A2X-PC5-QoS-Parameters,

AerialUEsubscriptionInformation,

AllowedNSSAI,

AMFName,

AMFSetID,

AMF-TNLAssociationSetupList,

AMF-TNLAssociationToAddList,

AMF-TNLAssociationToRemoveList,

AMF-TNLAssociationToUpdateList,

AMF-UE-NGAP-ID,

AssistanceDataForPaging,

AssociatedSessionID,

AUN3DeviceAccessInfo,

AuthenticatedIndication,

BroadcastCancelledAreaList,

BroadcastCompletedAreaList,

BroadcastTransportFailureTransfer,

BroadcastTransportRequestTransfer,

BroadcastTransportResponseTransfer,

CancelAllWarningMessages,

Cause,

CellIDListForRestart,

CEmodeBrestricted,

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Skip to Next Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

id-ServedGUAMIList,

id-SliceSupportList,

id-S-NSSAI,

id-SONConfigurationTransferDL,

id-SONConfigurationTransferUL,

id-SourceAMF-UE-NGAP-ID,

id-SourceToTarget-AMFInformationReroute,

id-SourceToTarget-TransparentContainer,

id-SRVCCOperationPossible,

id-SupportedTAList,

id-Suspend-Request-Indication,

id-Suspend-Response-Indication,

id-TAI,

id-TAIListForPaging,

id-TAIListForRestart,

id-TargetID,

id-TargetNSSAIInformation,

id-TargettoSource-Failure-TransparentContainer,

id-TargetToSource-TransparentContainer,

id-TimeSyncAssistanceInfo,

id-TimeToWait,

id-TNGFIdentityInformation,

id-TraceActivation,

id-TraceCollectionEntityIPAddress,

id-TraceCollectionEntityURI,

id-TWIFIdentityInformation,

id-UEAggregateMaximumBitRate,

id-UE-associatedLogicalNG-connectionList,

id-UECapabilityInfoRequest,

id-UEContextRequest,

id-UE-DifferentiationInfo,

id-UE-NGAP-IDs,

id-UEPagingIdentity,

id-UEPresenceInAreaOfInterestList,

id-UERadioCapability,

id-UERadioCapability-EUTRA-Format,

id-UERadioCapabilityForPaging,

id-UERadioCapabilityID,

id-UERetentionInformation,

id-UESecurityCapabilities,

id-UESliceMaximumBitRateList,

id-UE-UP-CIoT-Support,

id-UL-CP-SecurityInformation,

id-UnavailableGUAMIList,

id-UserLocationInformation,

id-W-AGFIdentityInformation,

id-WarningAreaCoordinates,

id-WarningAreaList,

id-WarningMessageContents,

id-WarningSecurityInfo,

id-WarningType,

id-WUS-Assistance-Information,

id-XrDeviceWith2Rx,

id-SLPositioningRangingServiceInfo,

id-Aerial-UE-FlightInformationOngoingReporting-failed

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Skip to Next Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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

--

-- LOCATION REPORTING FAILURE INDICATION

--

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

LocationReportingFailureIndication ::= SEQUENCE {

protocolIEs ProtocolIE-Container { {LocationReportingFailureIndicationIEs} },

...

}

LocationReportingFailureIndicationIEs NGAP-PROTOCOL-IES ::= {

{ ID id-AMF-UE-NGAP-ID CRITICALITY reject TYPE AMF-UE-NGAP-ID PRESENCE mandatory }|

{ ID id-RAN-UE-NGAP-ID CRITICALITY reject TYPE RAN-UE-NGAP-ID PRESENCE mandatory }|

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

{ ID id-Aerial-UE-FlightInformationOngoingReporting-failed CRITICALITY ignore TYPE Aerial-UE-FlightInformationOngoingReporting-failed PRESENCE optional},

...

}

Aerial-UE-FlightInformationOngoingReporting-failed::= ENUMERATED {

true,

...

}

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Skip to Next Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### 9.4.5 Information Element Definitions

-- ASN1START

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

--

-- Information Element Definitions

--

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

NGAP-IEs {

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

ngran-Access (22) modules (3) ngap (1) version1 (1) ngap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

id-AdditionalDLForwardingUPTNLInformation,

id-AdditionalULForwardingUPTNLInformation,

id-AdditionalDLQosFlowPerTNLInformation,

id-AdditionalDLUPTNLInformationForHOList,

id-AdditionalNGU-UP-TNLInformation,

id-AdditionalRedundantDL-NGU-UP-TNLInformation,

id-AdditionalRedundantDLQosFlowPerTNLInformation,

id-AdditionalRedundantNGU-UP-TNLInformation,

id-AdditionalRedundantUL-NGU-UP-TNLInformation,

id-AdditionalUL-NGU-UP-TNLInformation,

id-AlternativeQoSParaSetList,

id-AssistanceInformationQoE-Meas,

id-AdditionalCancelledlocationReportingReferenceIDList,

id-BurstArrivalTimeDownlink,

id-Cause,

id-CNPacketDelayBudgetDL,

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Skip to Next Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

CauseRadioNetwork ::= ENUMERATED {

unspecified,

txnrelocoverall-expiry,

successful-handover,

release-due-to-ngran-generated-reason,

release-due-to-5gc-generated-reason,

handover-cancelled,

partial-handover,

ho-failure-in-target-5GC-ngran-node-or-target-system,

ho-target-not-allowed,

tngrelocoverall-expiry,

tngrelocprep-expiry,

cell-not-available,

unknown-targetID,

no-radio-resources-available-in-target-cell,

unknown-local-UE-NGAP-ID,

inconsistent-remote-UE-NGAP-ID,

handover-desirable-for-radio-reason,

time-critical-handover,

resource-optimisation-handover,

reduce-load-in-serving-cell,

user-inactivity,

radio-connection-with-ue-lost,

radio-resources-not-available,

invalid-qos-combination,

failure-in-radio-interface-procedure,

interaction-with-other-procedure,

unknown-PDU-session-ID,

unkown-qos-flow-ID,

multiple-PDU-session-ID-instances,

multiple-qos-flow-ID-instances,

encryption-and-or-integrity-protection-algorithms-not-supported,

ng-intra-system-handover-triggered,

ng-inter-system-handover-triggered,

xn-handover-triggered,

not-supported-5QI-value,

ue-context-transfer,

ims-voice-eps-fallback-or-rat-fallback-triggered,

up-integrity-protection-not-possible,

up-confidentiality-protection-not-possible,

slice-not-supported,

ue-in-rrc-inactive-state-not-reachable,

redirection,

resources-not-available-for-the-slice,

ue-max-integrity-protected-data-rate-reason,

release-due-to-cn-detected-mobility,

...,

n26-interface-not-available,

release-due-to-pre-emption,

multiple-location-reporting-reference-ID-instances,

rsn-not-available-for-the-up,

npn-access-denied,

cag-only-access-denied,

insufficient-ue-capabilities,

redcap-ue-not-supported,

unknown-MBS-Session-ID,

indicated-MBS-session-area-information-not-served-by-the-gNB,

inconsistent-slice-info-for-the-session,

misaligned-association-for-multicast-unicast,

eredcap-ue-not-supported,

two-rx-xr-ue-not-supported,

aerial-ue-flight-information-reporting-initiation-failed

}

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Skip to 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

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

--

-- IE parameter types from other modules.

--

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

IMPORTS

ProcedureCode,

ProtocolIE-ID

FROM NGAP-CommonDataTypes;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Skip to Next Change \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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-Aerial-UE-FlightInformationOngoingReporting-failed ProtocolIE-ID ::= 4xx

END

-- ASN1STOP