CR-Form-v7

CHANGE REQUEST

| ⌘ | **25.423 CR 686** | ⌘**rev** | **2** | ⌘ | Current version: | **5.2.0** | ⌘ |

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network **X** Core Network ☐

Title:	⌘	Partial dedicated measurement reporting		
Source:	⌘	NEC		
Work item code:⌘	TEI5		***Date:*** ⌘	August 2002
Category:	⌘ **B**		***Release:*** ⌘	Rel-5

Use <u>one</u> of the following categories:
F (correction)
A (corresponds to a correction 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 <u>TR 21.900</u>.

Use <u>one</u> of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change:	⌘	In the functionality, measurement on dedicated resources, the SRNC intiated measurement is regared as failed, if the measurement cannot be initiated in the DRNS. If the measurement is initiated for multiple RLs or RL Sets and the measurement for any RL or RL Set fails in the DRNS the whole measurement initiation is regarded as failed.

However there may occur the situation, that the measurement is successfully initiated for RLs or RL Sets in Node B_1 under DRNC, and for the RLs or RL Sets in Node B_2 under DRNC measurement initiation fails i.e. measurement is partially succesfully initiated in DRNS.

That's why in this contribution it is proposed to enhance the Dedicated Measurement Initiation procedure by allowing to initiate measurement on dedicated resources if measurument is succesfully intiated at least for one RL or RL set. It is left under the SRNC control to decide how to continue with dedicated measurement, if it is partially initiated in the DRNS

Additionally if successfully initiated RL/RLS measurements cannot be reported any more in the future, Dedicated Measurement Failure procedure is enhanced so that only failed RL/RLS measurements are reported to the SRNC. Remaining RL/RLS measurements can continue in DRNS. |
| ***Summary of change:***⌘ | | <u>Rev.2</u>
ASN.1 syntax error is corrected (highlighted in yellow).

<u>Rev.0, Rev.1</u>
New IE Partial Reporting Indicator is included into the DEDICATED MEASUREMENT INITIATION REQUEST message. In the DEDICATED |

| | | MEASUREMENT INITIATION FAILURE message, successful and unsuccessful RL/RLS initialisations are separated.
Dedicated Measurement Reporting procedure text is clarified to state that only successfully initiated RL/RLS measurements are reported.
DEDICATED MEASUREMENT FAILURE INDICATION message is enhanced to include failed RL/RLS measurements. |
|---|---|---|
| ***Consequences if not approved:*** | ⌘ | Dedicated measurement initiation is always considered as failed, even there would be successful RL/RLS measurement initiations. Additionally when one successfully initiated RL/RLS measurement fails, the whole measurement is considered as failed, even there are successful measurements still ongoing in the DRNS.
<u>Impact Analysis:</u>
Impact assessment towards the previous version of the specification (same release):
This CR has isolated impact with the previous version of the specification. The change is limited only to the Dedicated Measurement functionality |

Clauses affected:	⌘	8.3.11.3, 8.3.12.1, 8.3.14.1, 8.3.14.2, 9.1.28, 9.1.30, 9.1.33, 9.2.1.X, 9.3.3, 9.3.4, 9.3.6

		Y	**N**			
Other specs	⌘		X	Other core specifications	⌘	
affected:			X	Test specifications		
			X	O&M Specifications		

Other comments:	⌘	

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.3.11 Dedicated Measurement Initiation

8.3.11.1 General

This procedure is used by an SRNS to request the initiation of dedicated measurements in a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Dedicated Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.
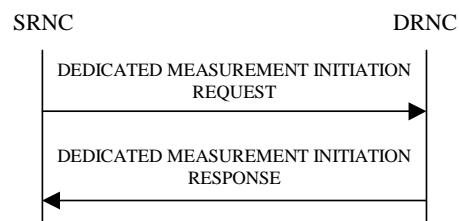
8.3.11.2 Successful Operation

Figure 20: Dedicated Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the SRNC to the DRNC.

Upon reception, the DRNC shall initiate the requested dedicated measurement according to the parameters given in the request.

If the Dedicated Measurement Object Type is indicated as being "RL"jn the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the indicated Radio Links.

 [FDD - If the Dedicated Measurement Object Type is indicated as being "RLS" jn the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the indicated Radio Link Sets.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" jn the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all current and future Radio Links within the UE Context.]

[TDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" jn the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for one existing DPCH per CCTrCH in each used time slot of current and future Radio Links within the UE Context, provided the measurement type is applicable to the respective DPCH.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RLS" jn the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the existing and future Radio Link Sets within the UE Context.]

[TDD – If the *DPCH ID* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually. If no *DPCH ID* IE is provided within the RL Information the measurement request shall apply for one existing DPCH per CCTrCH in each used time slot of the Radio Link, provided the measurement type is applicable to this DPCH.]

If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the DEDICATED MEASUREMENT REPORT message or in the DEDICATED MEASUREMENT RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand". The reported CFN shall be the CFN at the time when the dedicated measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26].

Report characteristics

The *Report Characteristics* IE indicates how the reporting of the dedicated measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *CFN* IE is not provided, the DRNS shall report the measurement result immediately. If the *CFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26].

If the *Report Characteristics* IE is set to "Periodic", the DRNS shall periodically initiate the Dedicated Measurement Report procedure for this measurement, with the requested report periodicity. If the *CFN* IE is provided, it indicates the frame for which the first measurement value of a periodic reporting shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26].

If the *Report Characteristics* IE is set to "Event A", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time. . After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event D", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time. . After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the falling time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event E", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided the DRNS shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the DRNS shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the DRNS shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided the DRNS shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the DRNS shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. . If the *Measurement Threshold 2* IE is not present, the DRNS shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is not set to "On –Demand", the DRNS is required to perform reporting for a dedicated measurement object, in accordance with the conditions provided in the DEDICATED MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no dedicated measurement object(s) for which a measurement is defined exists any more the DRNS shall terminate the measurement locally without reporting this to the SRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the DRNS shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

Higher layer filtering

The *Measurement Filter Coefficient* IE indicates how filtering of the dedicated measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

F_n is the updated filtered measurement result

F_{n-1} is the old filtered measurement result

M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the DEDICATED MEASUREMENT INITIATION RESPONSE, DEDICATED MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn).

$a = 1/2^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present, *a* shall be set to 1 (no filtering)

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

Response message
If the DRNS was able to initiate the measurement requested by the SRNS it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement Id that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message.

Only in the case where the *Report Characteristics* IE is set to "On Demand", the DEDICATED MEASUREMENT INITIATION RESPONSE message shall contain the measurement result. In this case also the *Dedicated Measurement Object* IE shall be included if it was included in the DEDICATED MEASUREMENT INITIATION REQUEST message.

8.3.11.3   Unsuccessful Operation
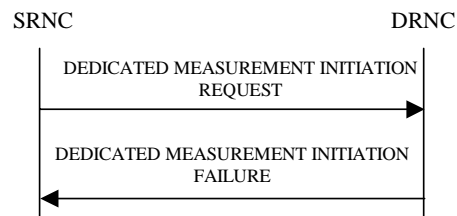
Figure 21: Dedicated Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated for one of the RL/RLS, the DRNC shall send a DEDICATED MEASUREMENT INITIATION FAILURE message. The message shall include the same Measurement Id that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

If the DEDICATED MEASUREMENT INITIATION REQUEST message includes the *Partial Reporting Indicator* IE, the DRNS shall, if partial reporting is supported, separate the unsuccessful measurement initiations from the successful measurement initiations. For the successful measurement initiations on a RL or an RLS, the DRNS shall include the *Successful RL Information* IE or the *Successful RL Set Information* IE for the concerned RL or RLS if the R*eport Characteristics* IE in the DEDICATED MEASUREMENT INITIATION REQUEST message was set to 'On-Demand'. For the unsuccessful measurement initiations, the DRNS shall include the *Individual Cause* IE set to an appropriate value if it differs from the value of the *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

-    Measurement not Supported For The Object

-    Measurement Temporarily not Available

Miscellaneous Causes:

- Control Processing Overload

- HW Failure

8.3.11.4   Abnormal Conditions

The allowed combinations of the Dedicated Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the DRNS shall regard the Dedicated Measurement Initiation procedure as failed.

Table 4: Allowed Dedicated Measurement Type and Report Characteristics Type combinations

Dedicated Measurement Type	Report Characteristics Type								
	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification
SIR	X	X	X	X	X	X	X	X	
SIR Error	X	X	X	X	X	X	X	X	
Transmitted Code Power	X	X	X	X	X	X	X	X	
RSCP	X	X	X	X	X	X	X	X	
Rx Timing Deviation	X	X	X	X	X	X	X	X	
Round Trip Time	X	X	X	X	X	X	X	X	

If the Dedicated Measurement Type received in the *Dedicated Measurement Type* IE is not defined in ref. [11] or [14] to be measured on the Dedicated Measurement Object Type received in the DEDICATED MEASUREMENT INITIATION REQUEST message the DRNS shall regard the Dedicated Measurement Initiation procedure as failed.

If the *CFN* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic" or "On Demand", the DRNS shall regard the Dedicated Measurement Initiation procedure as failed.

8.3.12   Dedicated Measurement Reporting

8.3.12.1   General

This procedure is used by the DRNS to report results of the successfully initiated measurements requested by the SRNS with the Dedicated Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Dedicated Measurement Reporting procedure at any time after establishing a Radio Link.

8.3.12.2   Successful Operation

SRNC   DRNC

DEDICATED MEASUREMENT REPORT
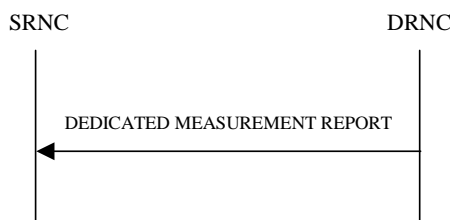
Figure 22: Dedicated Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the DRNS shall initiate the Dedicated Measurement Reporting procedure. If the measurement was initiated (by the Dedicated Measurement Initiation procedure) for multiple dedicated measurement objects, the DRNC may include dedicated measurement values in the *Dedicated Measurement Value Information* IE for multiple objects in the DEDICATED MEASUREMENT REPORT message.

The *Measurement Id* IE shall be set to the Measurement Id provided by the SRNC when initiating the measurement with the Dedicated Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement specified in ref. [23] and [24], the Measurement not available shall be reported in the *Dedicated Measurement Value Information* IE.

8.3.12.3   Abnormal Conditions

-

8.3.14 Dedicated Measurement Failure

8.3.14.1 General

This procedure is used by the DRNS to notify the SRNS that a measurement previously requested by the Dedicated Measurement Initiation procedure can no longer be reported. When partial reporting is allowed and supported, this procedure shall be used to report that measurement for one or more RL/RLS can no longer be reported.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Dedicated Measurement Failure procedure at any time after establishing a Radio Link.

8.3.14.2 Successful Operation
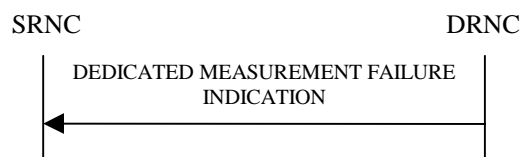
Figure 24: Dedicated Measurement Failure procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT FAILURE INDICATION message, sent from the DRNC to the SRNC, to inform the SRNC that a previously requested dedicated measurement can no longer be reported. The DRNC has locally terminated the indicated measurement.

The DRNS shall include *Unsuccessful RL Information* IE or the *Unsuccessful RL Set Information* IE for the concerned RL or RLS if partial reporting is allowed and it is supported. The DRNS shall include the *Individual Cause* IE set to an appropriate value if it differs from the value of the *Cause* IE

Typical cause values are:

Miscellaneous Causes:

- Control Processing Overload

- HW Failure

- O&M Intervention

8.3.14.3 Abnormal Conditions

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9.1.28   DEDICATED MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement Id	M		9.2.1.37		YES	reject
CHOICE *Dedicated Measurement Object Type*	M				YES	reject
>*RL*					–	
>>**RL Information**		*1..<maxnoofRLs>*			EACH	ignore
>>>RL-ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	
>*RLS*				FDD only	–	
>>**RL Set Information**		*1..<maxnoofRLSets>*			EACH	reject
>>>RL-Set-ID	M		9.2.2.35		–	
>*ALL RL*			NULL		–	
>*ALL RLS*			NULL	FDD only	–	
Dedicated Measurement Type	M		9.2.1.18		YES	reject
Measurement Filter Coefficient	O		9.2.1.36		YES	reject
Report Characteristics	M		9.2.1.48		YES	reject
CFN reporting indicator	M		FN reporting indicator 9.2.1.28A		YES	reject
CFN	O		9.2.1.9		YES	reject
Partial Reporting Indicator	O		9.2.1.X		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs a measurement can be started on.
maxnoofRLSets	Maximum number of individual RL Sets a measurement can be started on.

9.1.30   DEDICATED MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement Id	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
CHOICE *Dedicated Measurement Object Type*	O			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>*RL* or *ALL RL*					–	
>>Unsuccessful RL Information		*1..<maxno ofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Individual Cause	O		Cause 9.2.1.5		–	
>>Successful RL Information		*0..<maxno ofRLs-1>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	
>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>CFN	O		9.2.1.9	Dedicated Measurement Time Reference	–	
>*RLS* or *ALL RLS*				FDD only	–	
>>Unsuccessful RL Set Information		*1..<maxno ofRLSets>*			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>Individual Cause	O		Cause 9.2.1.5		–	
>>Successful RL Set Information		*0..<maxno ofRLSets-1>*			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>CFN	O		9.2.1.9	Dedicated Measurement Time Reference	–	

9.1.33 DEDICATED MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Measurement Id	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore
CHOICE *Dedicated Measurement Object Type*	O			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>*RL* or *ALL RL*					–	
>>**Unsuccessful RL Information**		1..<*maxnoof RLs*>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Individual Cause	O		Cause 9.2.1.5		–	
>*RLS* or *ALL RLS*				FDD only	–	
>>**Unsuccessful RL Set Information**		1..<*maxnoof RLSets*>			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>Individual Cause	O		Cause 9.2.1.5		–	

9.2.1 Common Parameters

Text removed

9.2.1.X Partial Reporting Indicator

This IE indicates if DRNS may report partially successful measurements.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Partial Reporting Indicator			ENUMERATED(partial reporting allowed)	

9.3 Message and Information Element Abstract Syntax (with ASN.1)

9.3.3 PDU Definitions

```
-- **************************************************************
--
-- PDU definitions for RNSAP.
--
-- **************************************************************

RNSAP-PDU-Contents {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    Active-Pattern-Sequence-Information,
    AllocationRetentionPriority,
    AllowedQueuingTime,
```

```
    Neighbouring-UMTS-CellInformation,
    NeighbouringTDDCellMeasurementInformationLCR,
    NrOfDLchannelisationcodes,
    PagingCause,
    PagingRecordType,
    PartialReportingIndicator,
    PDSCHCodeMapping,
    PayloadCRC-PresenceIndicator,
    PCCPCH-Power,
    PC-Preamble,
    Permanent-NAS-UE-Identity,
    PowerAdjustmentType,
    PowerOffset,
```

```
        PrimaryCCPCH-RSCP,
```

Text removed

```
        maxNoOfDSCHs,
        maxNoOfUSCHs,
        maxNrOfCCTrCHs,
        maxNrOfDCHs,
        maxNrOfTS,
        maxNrOfDPCHs,
        maxNrOfRLs,
        maxNrOfRLSets,
        maxNrOfRLSets-1,
        maxNrOfRLs-1,
        maxNrOfRLs-2,
        maxNrOfULTs,
        maxNrOfDLTs,
        maxResetContext,
        maxNoOfDSCHsLCR,
        maxNoOfUSCHsLCR,
        maxNrOfCCTrCHsLCR,
        maxNrOfTsLCR,
        maxNrOfDLTsLCR,
        maxNrOfULTsLCR,
        maxNrOfDPCHsLCR,
        maxNrOfLCRTDDNeighboursPerRNC,
        maxNrOfMeasNCell,
        maxNrOfMACdFlows,
```

Text removed

```
        id-DL-PowerBalancing-Information,
        id-DL-PowerBalancing-ActivationIndicator,
        id-DL-PowerBalancing-UpdatedIndicator,
        id-DL-ReferencePowerInformation,
        id-DLReferencePower,
        id-DLReferencePowerList-DL-PC-Rqst,
        id-DL-ReferencePowerInformation-DL-PC-Rqst,
        id-DRXCycleLengthCoefficient,
        id-DedicatedMeasurementObjectType-DM-Fail,
        id-DedicatedMeasurementObjectType-DM-Fail-Ind,
        id-DedicatedMeasurementObjectType-DM-Rprt,
        id-DedicatedMeasurementObjectType-DM-Rqst,
        id-DedicatedMeasurementObjectType-DM-Rsp,
        id-DedicatedMeasurementType,
        id-DelayedActivation,
        id-DelayedActivationList-RL-ActivationCmdFDD,
        id-DelayedActivationList-RL-ActivationCmdTDD,
        id-DelayedActivationInformation-RL-ActivationCmdFDD,
```

```
id-DelayedActivationInformation-RL-ActivationCmdTDD,
id-DPC-Mode,
id-DPC-Mode-Change-SupportIndicator,
id-DSCHs-to-Add-FDD,
id-DSCHs-to-Add-TDD,
id-DSCH-DeleteList-RL-ReconfPrepTDD,
id-DSCH-Delete-RL-ReconfPrepFDD,
id-DSCH-FDD-Information,
id-DSCH-InformationListIE-RL-AdditionRspTDD,
id-DSCH-InformationListIEs-RL-SetupRspTDD,
id-DSCH-TDD-Information,
id-DSCH-FDD-InformationResponse,
id-DSCH-ModifyList-RL-ReconfPrepTDD,
id-DSCH-Modify-RL-ReconfPrepFDD,
id-DSCH-RNTI,
id-DSCHsToBeAddedOrModified-FDD,
id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
id-EnhancedDSCHPC,
id-EnhancedDSCHPCIndicator,
id-Enhanced-PrimaryCPICH-EcNo,
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD,
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD,
id-GA-Cell,
id-GA-CellAdditionalShapes,
id-HCS-Prio,
id-HSDSCH-FDD-Information,
id-HSDSCH-FDD-Information-Response,
id-HSDSCH-FDD-Information-to-Add,
id-HSDSCH-FDD-Information-to-Delete,
id-HSDSCH-Information-to-Modify,
id-HSDSCH-RNTI,
id-HSDSCH-TDD-Information,
id-HSDSCH-TDD-Information-Response,
id-HSDSCH-TDD-Information-Response-LCR,
id-HSDSCH-TDD-Information-to-Add,
id-HSDSCH-TDD-Information-to-Delete,
id-HSPDSCH-RL-ID,
id-IMSI,
id-InformationExchangeID,
id-InformationExchangeObjectType-InfEx-Rprt,
id-InformationExchangeObjectType-InfEx-Rqst,
id-InformationExchangeObjectType-InfEx-Rsp,
id-InformationReportCharacteristics,
id-InformationType,
id-InnerLoopDLPCStatus,
id-SplitType,
id-LengthOfTFCI2,
id-L3-Information,
id-AdjustmentPeriod,
id-MaxAdjustmentStep,
id-MeasurementFilterCoefficient,
id-MeasurementID,
id-PagingArea-PagingRqst,
```

```
    id-PartialReportingIndicator,
    id-PDSCH-RL-ID,
    id-Permanent-NAS-UE-Identity,
    id-FACH-FlowControlInformation,
    id-PowerAdjustmentType,
    id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
    id-PropagationDelay,
    id-Qth-Parameter,
    id-RANAP-RelocationInformation,
    id-ResetIndicator,
    id-RL-Information-PhyChReconfRqstFDD,
    id-RL-Information-PhyChReconfRqstTDD,
    id-RL-Information-RL-AdditionRqstFDD,
    id-RL-Information-RL-AdditionRqstTDD,
    id-RL-Information-RL-DeletionRqst,
    id-RL-Information-RL-FailureInd,
    id-RL-Information-RL-ReconfPrepFDD,
    id-RL-Information-RL-RestoreInd,
    id-RL-Information-RL-SetupRqstFDD,
    id-RL-Information-RL-SetupRqstTDD,
    id-RL-InformationItem-RL-CongestInd,
    id-RL-InformationItem-DM-Rprt,
    id-RL-InformationItem-DM-Rqst,
    id-RL-InformationItem-DM-Rsp,
    id-RL-InformationItem-RL-PreemptRequiredInd,
    id-RL-InformationItem-RL-SetupRqstFDD,
    id-RL-InformationList-RL-CongestInd,
    id-RL-InformationList-RL-AdditionRqstFDD,
    id-RL-InformationList-RL-DeletionRqst,
    id-RL-InformationList-RL-PreemptRequiredInd,
    id-RL-InformationList-RL-ReconfPrepFDD,
    id-RL-InformationResponse-RL-AdditionRspTDD,
    id-RL-InformationResponse-RL-ReconfReadyTDD,
    id-RL-InformationResponse-RL-ReconfRspTDD,
    id-RL-InformationResponse-RL-SetupRspTDD,
    id-RL-InformationResponseItem-RL-AdditionRspFDD,
    id-RL-InformationResponseItem-RL-ReconfReadyFDD,
    id-RL-InformationResponseItem-RL-ReconfRspFDD,
    id-RL-InformationResponseItem-RL-SetupRspFDD,
    id-RL-InformationResponseList-RL-AdditionRspFDD,
    id-RL-InformationResponseList-RL-ReconfReadyFDD,
    id-RL-InformationResponseList-RL-ReconfRspFDD,
    id-RL-InformationResponseList-RL-SetupRspFDD,
    id-RL-ReconfigurationFailure-RL-ReconfFail,
    id-RL-ReconfigurationReadyTDD-RL-Information,
    id-RL-ReconfigurationRequestFDD-RL-InformationList,
    id-RL-ReconfigurationRequestFDD-RL-Information-IEs,
    id-RL-ReconfigurationRequestTDD-RL-Information,
    id-RL-Specific-DCH-Info,
    id-RL-Set-InformationItem-DM-Rprt,
    id-RL-Set-InformationItem-DM-Rqst,
    id-RL-Set-InformationItem-DM-Rsp,
    id-RL-Set-Information-RL-FailureInd,
```

```
	id-RL-Set-Information-RL-RestoreInd,
	id-RL-Set-Successful-InformationItem-DM-Fail,
	id-RL-Set-Unsuccessful-InformationItem-DM-Fail,
	id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind,
	id-RL-Successful-InformationItem-DM-Fail,
	id-RL-Unsuccessful-InformationItem-DM-Fail,
	id-RL-Unsuccessful-InformationItem-DM-Fail-Ind,
	id-ReportCharacteristics,
	id-Reporting-Object-RL-FailureInd,
	id-Reporing-Object-RL-RestoreInd,
	id-RNC-ID,
	id-RxTimingDeviationForTA,
	id-S-RNTI,
```

Text removed

```
-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION REQUEST
--
-- **************************************************************

DedicatedMeasurementInitiationRequest ::= SEQUENCE {
	protocolIEs			ProtocolIE-Container		{{DedicatedMeasurementInitiationRequest-IEs}},
	protocolExtensions		ProtocolExtensionContainer	{{DedicatedMeasurementInitiationRequest-Extensions}}	OPTIONAL,
	...
}

DedicatedMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
	{ ID id-MeasurementID				CRITICALITY reject	TYPE MeasurementID				PRESENCE mandatory	} |
	{ ID id-DedicatedMeasurementObjectType-DM-Rqst	CRITICALITY reject	TYPE DedicatedMeasurementObjectType-DM-Rqst	PRESENCE mandatory	} |
	-- This IE represents both the Dedicated Measurement Object Type IE and the choice based on the Dedicated Measurement Object Type
	-- as described in the tabular message format in subclause 9.1.
	{ ID id-DedicatedMeasurementType		CRITICALITY reject	TYPE DedicatedMeasurementType			PRESENCE mandatory	} |
	{ ID id-MeasurementFilterCoefficient		CRITICALITY reject	TYPE MeasurementFilterCoefficient		PRESENCE optional	} |
	{ ID id-ReportCharacteristics			CRITICALITY reject	TYPE ReportCharacteristics			PRESENCE mandatory	} |
	{ ID id-CFNReportingIndicator			CRITICALITY reject	TYPE FNReportingIndicator			PRESENCE mandatory	} |
	{ ID id-CFN					CRITICALITY reject	TYPE CFN					PRESENCE optional	},
	...
}

DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
	rL			RL-DM-Rqst,
	rLS			RL-Set-DM-Rqst,
	allRL			All-RL-DM-Rqst,
	allRLS			All-RL-Set-DM-Rqst,
	...
}

RL-DM-Rqst ::= SEQUENCE {
	rL-InformationList-DM-Rqst		RL-InformationList-DM-Rqst,
```

```
    iE-Extensions                   ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
}

RLItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


RL-InformationList-DM-Rqst             ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rqst-IEs} }

RL-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rqst        CRITICALITY reject   TYPE RL-InformationItem-DM-Rqst        PRESENCE mandatory   }
}

RL-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-ID             RL-ID,
    dPCH-ID           DPCH-ID           OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


RL-Set-DM-Rqst ::= SEQUENCE {
    rL-Set-InformationList-DM-Rqst    RL-Set-InformationList-DM-Rqst,
    iE-Extensions                   ProtocolExtensionContainer { { RL-SetItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


RL-Set-InformationList-DM-Rqst               ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rqst-
IEs} }

RL-Set-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rqst    CRITICALITY ignore   TYPE RL-Set-InformationItem-DM-Rqst        PRESENCE mandatory   }
}

RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-Set-ID         RL-Set-ID,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

All-RL-DM-Rqst ::= NULL
```

```
All-RL-Set-DM-Rqst ::= NULL

DedicatedMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-PartialReportingIndicator          CRITICALITY ignore          EXTENSION PartialReportingIndicator
      PRESENCE optional    },
    ...
}
```

Text removed

```
-- **************************************************
--
-- DEDICATED MEASUREMENT INITIATION FAILURE
--
-- **************************************************

DedicatedMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs              ProtocolIE-Container          {{DedicatedMeasurementInitiationFailure-IEs}},
    protocolExtensions       ProtocolExtensionContainer   {{DedicatedMeasurementInitiationFailure-Extensions}}      OPTIONAL,
    ...
}

DedicatedMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID          CRITICALITY ignore  TYPE MeasurementID            PRESENCE mandatory  } |
    { ID id-Cause                  CRITICALITY ignore  TYPE Cause                    PRESENCE mandatory  } |
    { ID id-CriticalityDiagnostics CRITICALITY ignore  TYPE CriticalityDiagnostics   PRESENCE optional },
    ...
}

DedicatedMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DedicatedMeasurementObjectType-DM-Fail  CRITICALITY ignore  EXTENSION DedicatedMeasurementObjectType-DM-Fail  PRESENCE optional },
    ...
}

DedicatedMeasurementObjectType-DM-Fail ::= CHOICE {
    rL                RL-DM-Fail,
    rLS               RL-Set-DM-Fail,
    allRL             RL-DM-Fail,
    allRLS            RL-Set-DM-Fail,
    ...
}

RL-DM-Fail ::= SEQUENCE {
    rL-unsuccessful-InformationRespList-DM-Fail     RL-Unsuccessful-InformationRespList-DM-Fail,
    rL-successful-InformationRespList-DM-Fail       RL-Successful-InformationRespList-DM-Fail            OPTIONAL,
    iE-Extensions     ProtocolExtensionContainer { { RLItem-DM-Fail-ExtIEs} } OPTIONAL,
    ...
}
```

```
RLItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Fail ::= SEQUENCE {
    rL-Set-unsuccessful-InformationRespList-DM-Fail     RL-Set-Unsuccessful-InformationRespList-DM-Fail,
    rL-Set-successful-InformationRespList-DM-Fail       RL-Set-Successful-InformationRespList-DM-Fail       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { RL-SetItem-DM-Fail-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Unsuccessful-InformationRespList-DM-Fail         ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container  { {RL-Unsuccessful-
InformationResp-DM-Fail-IEs} }

RL-Unsuccessful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Unsuccessful-InformationItem-DM-Fail     CRITICALITY ignore   TYPE RL-Unsuccessful-InformationItem-DM-Fail     PRESENCE mandatory }
}

RL-Unsuccessful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-ID                       RL-ID,
    individualcause             Cause OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
    ...
}

RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Successful-InformationRespList-DM-Fail           ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Successful-
InformationResp-DM-Fail-IEs} }

RL-Successful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Successful-InformationItem-DM-Fail       CRITICALITY ignore   TYPE RL-Successful-InformationItem-DM-Fail       PRESENCE mandatory }
}

RL-Successful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-ID,                      RL-ID,
    dPCH-ID                     DPCH-ID                 OPTIONAL,
    dedicatedMeasurementValue   DedicatedMeasurementValue,
    cFN                         CFN                     OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {RL-Successful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
    ...
}

RL-Successful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

RL-Set-Unsuccessful-InformationRespList-DM-Fail            ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-IEs} }

RL-Set-Unsuccessful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Unsuccessful-InformationItem-DM-Fail      CRITICALITY ignore   TYPE RL-Set-Unsuccessful-InformationItem-DM-Fail      PRESENCE
mandatory   }
}

RL-Set-Unsuccessful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-Set-ID              RL-Set-ID,
    individualcause              Cause OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-Successful-InformationRespList-DM-Fail            ::= SEQUENCE (SIZE (1..maxNrOfRLSets-1)) OF ProtocolIE-Single-Container { {RL-Set-
Successful-InformationResp-DM-Fail-IEs} }

RL-Set-Successful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Successful-InformationItem-DM-Fail      CRITICALITY ignore   TYPE RL-Set-Successful-InformationItem-DM-Fail      PRESENCE mandatory
}

RL-Set-Successful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-Set-ID              RL-Set-ID,
    dedicatedMeasurementValue              DedicatedMeasurementValue,
    cFN              CFN              OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { {RL-Set-Successful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Successful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

Text removed

```
-- **************************************************
--
-- DEDICATED MEASUREMENT FAILURE INDICATION
--
-- **************************************************

DedicatedMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs              ProtocolIE-Container              {{DedicatedMeasurementFailureIndication-IEs}},
```

```
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementFailureIndication-Extensions}}      OPTIONAL,
    ...
}

DedicatedMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID          CRITICALITY ignore  TYPE MeasurementID           PRESENCE mandatory   }  |
    { ID id-Cause                  CRITICALITY ignore  TYPE Cause                   PRESENCE mandatory   },
    ...
}

DedicatedMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DedicatedMeasurementObjectType-DM-Fail-Ind  CRITICALITY ignore  EXTENSION DedicatedMeasurementObjectType-DM-Fail-Ind   PRESENCE optional
    },
    ...
}


DedicatedMeasurementObjectType-DM-Fail-Ind  ::= CHOICE {
    rL                  RL-DM-Fail-Ind,
    rLS                 RL-Set-DM-Fail-Ind,
    allRL               RL-DM-Fail-Ind,
    allRLS              RL-Set-DM-Fail-Ind,
    ...
}

RL-DM-Fail-Ind ::= SEQUENCE {
    rL-unsuccessful-InformationRespList-DM-Fail-Ind     RL-Unsuccessful-InformationRespList-DM-Fail-Ind,
    iE-Extensions               ProtocolExtensionContainer { { RLItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
    ...
}

RLItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Fail-Ind ::= SEQUENCE {
    rL-Set-unsuccessful-InformationRespList-DM-Fail-Ind     RL-Set-Unsuccessful-InformationRespList-DM-Fail-Ind,
    iE-Extensions               ProtocolExtensionContainer { { RL-SetItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
    ...
}

RL-SetItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Unsuccessful-InformationRespList-DM-Fail-Ind     ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
InformationResp-DM-Fail-Ind-IEs} }

RL-Unsuccessful-InformationResp-DM-Fail-Ind-IEs RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-RL-Unsuccessful-InformationItem-DM-Fail-Ind        CRITICALITY ignore   TYPE RL-Unsuccessful-InformationItem-DM-Fail-Ind        PRESENCE
mandatory  }
}

RL-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
    rL-ID                  RL-ID,
    individualcause        Cause OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
    ...
}

RL-Unsuccessful-InformationItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-Unsuccessful-InformationItem-InformationRespList-DM-Fail-Ind          ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-Ind-IEs} }

RL-Set-Unsuccessful-InformationResp-DM-Fail-Ind-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind        CRITICALITY ignore   TYPE RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind        PRESENCE
mandatory  }
}

RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
    rL-Set-ID              RL-Set-ID,
    individualcause        Cause OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind-Indns-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind-Indns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

9.3.4   Information Element Definitions

```
-- **************************************************************
--
-- Information Element Definitions
--
-- **************************************************************
```

Text removed

```
PagingRecordType ::= ENUMERATED {
    imsi-gsm-map,
```

```
        tmsi-gsm-map,
        p-tmsi-gsm-map,
        imsi-ds-41,
        tmsi-ds-41,
        ...
}
-- See in [16]

PartialReportingIndicator ::= ENUMERATED {
        partial-reporting-allowed
}

PayloadCRC-PresenceIndicator ::= ENUMERATED {
        crc-included,
        crc-not-included
}

PCCPCH-Power ::= INTEGER (-150..400,...)
-- PCCPCH-power = power * 10
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step 0.1dBm
```

Text removed

9.3.6   Constant Definitions

```
-- **************************************************************************
--
-- Constant definitions
--
-- **************************************************************************
```

Text removed

```
-- **************************************************************************
--
-- Lists
--
-- **************************************************************************
```

Text removed

```
maxCodeNumComp-1                    INTEGER ::= 255
maxRateMatching                     INTEGER ::= 256
maxNoCodeGroups                     INTEGER ::= 256
maxNoOfDSCHs                        INTEGER ::= 10
maxNoOfDSCHsLCR                     INTEGER ::= 10
maxNoOfRB                           INTEGER ::= 32
```

```
maxNoOfUSCHs                          INTEGER ::= 10
maxNoOfUSCHsLCR                       INTEGER ::= 10
maxNoTFCIGroups                       INTEGER ::= 256
maxNrOfTFCs                           INTEGER ::= 1024
maxNrOfTFs                            INTEGER ::= 32
maxNrOfCCTrCHs                        INTEGER ::= 16
maxNrOfCCTrCHsLCR                     INTEGER ::= 16
maxNrOfDCHs                           INTEGER ::= 128
maxNrOfDL-Codes                       INTEGER ::= 8
maxNrOfDPCHs                          INTEGER ::= 240
maxNrOfDPCHsLCR                       INTEGER ::= 240
maxNrOfErrors                         INTEGER ::= 256
maxNrOfMACcshSDU-Length               INTEGER ::= 16
maxNrOfPoints                         INTEGER ::= 15
maxNrOfRLs                            INTEGER ::= 16
maxNrOfRLSets                         INTEGER ::= maxNrOfRLs
maxNrOfRLSets-1                       INTEGER ::= 15   -- maxNrOfRLSets - 1
maxNrOfRLs-1                          INTEGER ::= 15   -- maxNrOfRLs - 1
maxNrOfRLs-2                          INTEGER ::= 14   -- maxNrOfRLs - 2
maxNrOfULTs                           INTEGER ::= 15
maxNrOfULTsLCR                        INTEGER ::= 6
maxNrOfDLTs                           INTEGER ::= 15
maxNrOfDLTsLCR                        INTEGER ::= 6
maxRNCinURA-1                         INTEGER ::= 15
maxTTI-Count                          INTEGER ::= 4
maxCTFC                               INTEGER ::= 16777215
maxNrOfNeighbouringRNCs               INTEGER ::= 10
maxNrOfFDDNeighboursPerRNC            INTEGER ::= 256
maxNrOfGSMNeighboursPerRNC            INTEGER ::= 256
maxNrOfTDDNeighboursPerRNC            INTEGER ::= 256
maxNrOfFACHs                          INTEGER ::= 8
maxNrOfLCRTDDNeighboursPerRNC         INTEGER ::= 256
maxFACHCountPlus1                     INTEGER ::= 10
maxIBSEG                              INTEGER ::= 16
maxNrOfSCCPCHs                        INTEGER ::= 8
maxNrOfTFCI1Combs                     INTEGER ::= 512
maxNrOfTFCI2Combs                     INTEGER ::= 1024
maxNrOfTFCI2Combs-1                   INTEGER ::= 1023
maxTGPS                               INTEGER ::= 6
maxNrOfTS                             INTEGER ::= 15
maxNrOfLevels                         INTEGER ::= 256
maxNoOfDSCHs-1                        INTEGER ::= 9
maxNrOfTsLCR                          INTEGER ::= 6
maxNoSat                              INTEGER ::= 16
maxNoGPSTypes                         INTEGER ::= 8
maxNrOfMeasNCell                      INTEGER ::= 96
maxNrOfMeasNCell-1                    INTEGER ::= 95   -- maxNrOfMeasNCell - 1
maxResetContext                       INTEGER ::= 250
maxNrOfHARQProc                       INTEGER ::= 8
maxNrOfHSSCCHCodes                    INTEGER ::= 4
maxNrOfMACdFlows                      INTEGER ::= 8
maxNrOfMACdFlows-1                    INTEGER ::= 7   -- maxNrOfMACdFlows - 1
maxNrOfPDUIndexes                     INTEGER ::= 8
```

```
maxNrOfPDUIndexes-1                                      INTEGER  ::= 7    -- maxNrOfPDUIndexes  - 1
maxNrOfPrioQueues                                        INTEGER  ::= 8    -- maxNrOfPrioQueues - 1
maxNrOfPrioQueues-1                                      INTEGER  ::= 7    -- maxNrOfPrioQueues - 1
```

Text removed

```
id-DL-DPCH-InformationItem-RL-AdditionRspTDD             ProtocolIE-ID ::= 63
id-DL-DPCH-InformationItem-RL-SetupRspTDD                ProtocolIE-ID ::= 64
id-DL-DPCH-TimingAdjustment                              ProtocolIE-ID ::= 278
id-DLReferencePower                                      ProtocolIE-ID ::= 67
id-DLReferencePowerList-DL-PC-Rqst                       ProtocolIE-ID ::= 68
id-DL-ReferencePowerInformation-DL-PC-Rqst               ProtocolIE-ID ::= 69
id-DPC-Mode                                              ProtocolIE-ID ::= 12
id-DRXCycleLengthCoefficient                             ProtocolIE-ID ::= 70
id-DedicatedMeasurementObjectType-DM-Fail-Ind            ProtocolIE-ID ::= 470
id-DedicatedMeasurementObjectType-DM-Fail                ProtocolIE-ID ::= 471
id-DedicatedMeasurementObjectType-DM-Rprt                ProtocolIE-ID ::= 71
id-DedicatedMeasurementObjectType-DM-Rqst                ProtocolIE-ID ::= 72
id-DedicatedMeasurementObjectType-DM-Rsp                 ProtocolIE-ID ::= 73
id-DedicatedMeasurementType                              ProtocolIE-ID ::= 74
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD     ProtocolIE-ID ::= 82
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD     ProtocolIE-ID ::= 83
id-Guaranteed-Rate-Information                           ProtocolIE-ID ::= 41
id-IMSI                                                  ProtocolIE-ID ::= 84
id-HCS-Prio                                              ProtocolIE-ID ::= 311
id-L3-Information                                        ProtocolIE-ID ::= 85
id-AdjustmentPeriod                                      ProtocolIE-ID ::= 90
id-MaxAdjustmentStep                                     ProtocolIE-ID ::= 91
id-MeasurementFilterCoefficient                          ProtocolIE-ID ::= 92
id-MessageStructure                                      ProtocolIE-ID ::= 57
id-MeasurementID                                         ProtocolIE-ID ::= 93
id-Neighbouring-GSM-CellInformation                      ProtocolIE-ID ::= 13
id-Neighbouring-UMTS-CellInformationItem                 ProtocolIE-ID ::= 95
id-NRT-Load-Information-Value                            ProtocolIE-ID ::= 305
id-NRT-Load-Information-Value-IncrDecrThres              ProtocolIE-ID ::= 306
id-PagingArea-PagingRqst                                 ProtocolIE-ID ::= 102
id-FACH-FlowControlInformation                           ProtocolIE-ID ::= 103
id-PartialReportingIndicator                             ProtocolIE-ID ::= 472
id-Permanent-NAS-UE-Identity                             ProtocolIE-ID ::= 17
id-PowerAdjustmentType                                   ProtocolIE-ID ::= 107
id-RANAP-RelocationInformation                           ProtocolIE-ID ::= 109
id-RL-Information-PhyChReconfRqstFDD                      ProtocolIE-ID ::= 110
id-RL-Information-PhyChReconfRqstTDD                      ProtocolIE-ID ::= 111
id-RL-Information-RL-AdditionRqstFDD                      ProtocolIE-ID ::= 112
id-RL-Information-RL-AdditionRqstTDD                      ProtocolIE-ID ::= 113
id-RL-Information-RL-DeletionRqst                         ProtocolIE-ID ::= 114
id-RL-Information-RL-FailureInd                           ProtocolIE-ID ::= 115
id-RL-Information-RL-ReconfPrepFDD                        ProtocolIE-ID ::= 116
id-RL-Information-RL-RestoreInd                           ProtocolIE-ID ::= 117
id-RL-Information-RL-SetupRqstFDD                         ProtocolIE-ID ::= 118
id-RL-Information-RL-SetupRqstTDD                         ProtocolIE-ID ::= 119
id-RL-InformationItem-RL-CongestInd                       ProtocolIE-ID ::= 55
id-RL-InformationItem-DM-Rprt                            ProtocolIE-ID ::= 120
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id-RL-InformationItem-DM-Rqst                                          ProtocolIE-ID ::= 121
id-RL-InformationItem-DM-Rsp                                           ProtocolIE-ID ::= 122
id-RL-InformationItem-RL-PreemptRequiredInd                           ProtocolIE-ID ::= 2
id-RL-InformationItem-RL-SetupRqstFDD                                  ProtocolIE-ID ::= 123
id-RL-InformationList-RL-CongestInd                                    ProtocolIE-ID ::= 56
id-RL-InformationList-RL-AdditionRqstFDD                               ProtocolIE-ID ::= 124
id-RL-InformationList-RL-DeletionRqst                                  ProtocolIE-ID ::= 125
id-RL-InformationList-RL-PreemptRequiredInd                           ProtocolIE-ID ::= 1
id-RL-InformationList-RL-ReconfPrepFDD                                 ProtocolIE-ID ::= 126
id-RL-InformationResponse-RL-AdditionRspTDD                           ProtocolIE-ID ::= 127
id-RL-InformationResponse-RL-ReconfReadyTDD                           ProtocolIE-ID ::= 128
id-RL-InformationResponse-RL-SetupRspTDD                              ProtocolIE-ID ::= 129
id-RL-InformationResponseItem-RL-AdditionRspFDD                       ProtocolIE-ID ::= 130
id-RL-InformationResponseItem-RL-ReconfReadyFDD                       ProtocolIE-ID ::= 131
id-RL-InformationResponseItem-RL-ReconfRspFDD                         ProtocolIE-ID ::= 132
id-RL-InformationResponseItem-RL-SetupRspFDD                          ProtocolIE-ID ::= 133
id-RL-InformationResponseList-RL-AdditionRspFDD                       ProtocolIE-ID ::= 134
id-RL-InformationResponseList-RL-ReconfReadyFDD                       ProtocolIE-ID ::= 135
id-RL-InformationResponseList-RL-ReconfRspFDD                         ProtocolIE-ID ::= 136
id-RL-InformationResponse-RL-ReconfRspTDD                             ProtocolIE-ID ::= 28
id-RL-InformationResponseList-RL-SetupRspFDD                          ProtocolIE-ID ::= 137
id-RL-ReconfigurationFailure-RL-ReconfFail                            ProtocolIE-ID ::= 141
id-RL-Set-InformationItem-DM-Rprt                                     ProtocolIE-ID ::= 143
id-RL-Set-InformationItem-DM-Rqst                                     ProtocolIE-ID ::= 144
id-RL-Set-InformationItem-DM-Rsp                                      ProtocolIE-ID ::= 145
id-RL-Set-Information-RL-FailureInd                                   ProtocolIE-ID ::= 146
id-RL-Set-Information-RL-RestoreInd                                   ProtocolIE-ID ::= 147
id-RL-Set-Successful-InformationItem-DM-Fail                         ProtocolIE-ID ::= 473
id-RL-Set-Unsuccessful-InformationItem-DM-Fail                       ProtocolIE-ID ::= 474
id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind                   ProtocolIE-ID ::= 475
id-RL-Set-Unsuccessful-InformationItem-DM-Fail                       ProtocolIE-ID ::= 476
id-RL-SuccessfulItem-InformationItem-DM-Fail                          ProtocolIE-ID ::= 477
id-RL-UnsuccessfulItem-InformationItem-DM-Fail                        ProtocolIE-ID ::= 477
id-RL-UnsuccessfulItem-InformationItem-DM-Fail-Ind                    ProtocolIE-ID ::= 478
id-ReportCharacteristics                                              ProtocolIE-ID ::= 152
id-Reporting-Object-RL-FailureInd                                     ProtocolIE-ID ::= 153
id-Reporing-Object-RL-RestoreInd                                      ProtocolIE-ID ::= 154
id-RT-Load-Value                                                      ProtocolIE-ID ::= 307
id-RT-Load-Value-IncrDecrThres                                        ProtocolIE-ID ::= 308
id-S-RNTI                                                             ProtocolIE-ID ::= 155
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