Title: **Agreed CRs (Release 4 and category A) to TS 25.331**

Source: **TSG-RAN WG2**

Agenda item: 7.2.4

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Version	Versio	Workite
R2-021402	agreed	25.331	1472		Rel-4	RRC connection release procedure in CELL_DCH state	F	4.4.0	4.5.0	TEI4
R2-021407	agreed	25.331	1477		Rel-5	Corrections in ASN.1 related to SRNS relocation	A	5.0.0	5.1.0	TEI4
R2-021405	agreed	25.331	1475		Rel-5	Correction to DL TM DCCH TF size for Default Configurations	A	5.0.0	5.1.0	TEI4
R2-021404	agreed	25.331	1474		Rel-4	Correction to DL TM DCCH TF size for Default Configurations	F	4.4.0	4.5.0	TEI4
R2-021403	agreed	25.331	1473		Rel-5	RRC connection release procedure in CELL_DCH state	A	5.0.0	5.1.0	TEI4
R2-021406	agreed	25.331	1476		Rel-4	Corrections in ASN.1 related to SRNS relocation	F	4.4.0	4.5.0	TEI4

CR-Form-v5.1

CHANGE REQUEST

⌘ **25.331 CR 1472** ⌘**rev** **-** ⌘ Current version: **4.4.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network ☐ Core Network ☐

Title: ⌘	RRC connection release procedure in CELL_DCH state	
Source: ⌘	TSG-RAN WG2	
Work item code: ⌘	TEI4	***Date:*** ⌘ 2002-05-17
Category: ⌘	**F**	***Release:*** ⌘ REL-4

Use *one* 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 *one* 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)

Reason for change: ⌘	There is a contradiction on the UE and UTRAN actions during the RRC connection release procedure in CELL_DCH state. When UTRAN receives the RRC CONNECTION RELEASE COMPLETE message, it releases the physical channel. However, as the specification says today, this would trigger recovery from radio link failure in the UE with a cell update procedure. The UE behaviour should be corrected to make sure the release procedure is as efficient as possible.
Summary of change: ⌘	In 8.1.4.5, it is stated that in case of radio link failure, the UE will instead of trigger a cell update procedure, it shall enter idle mode. **Impact analysis:** Impacted functionality: UE behaviour at RRC connection release in CELL_DCH state when radio link failure occurs. Note: The correction has a possible impact on test specifications intended for REL-4 UEs. Correction: The UE behaviour modified to go to idle mode when this occurs. Correction to a function where the specification included a contradiction. If the UE implements the change, a network that expects the old UE behaviour will anyway work and also gain from the UE change. UEs that do not implement the change should always work with a network, since a cell update for a UE, which does not have a UE context in UTRAN, should anyway be supported by UTRAN.
Consequences if ⌘	Unnecessary signalling and prolonged UE release.

not approved:		

Clauses affected:	⌘	8.1.4.5	
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘ 25.331 v5.0.0, CR 1473
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.

8.1.4.5 Cell re-selection or radio link failure

If the UE performs cell re-selection or the radio link failure criteria in subclause 8.5.6 is met at any time during the RRC connection release procedure and the UE has not yet entered idle mode, the UE shall:

> 1> if cell re-selection occurred (CELL_FACH state):

>> 2> perform a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection".

> 1> if radio link failure occurred (CELL_DCH state):

>> 2> ~~perform a cell update procedure according to subclause 8.3.1 using the cause "radio link failure".~~

>> 2> release all its radio resources;

>> 2> indicate the release of the established signalling connections (as stored in the variable ESTABLISHED_SIGNALLING_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED_RABS) to upper layers;

>> 2> clear the variable ESTABLISHED_SIGNALLING_CONNECTIONS;

>> 2> clear the variable ESTABLISHED_RABS;

>> 2> enter idle mode;

>> 2> perform the actions specified in subclause 8.5.2 when entering idle mode;

>> 2> and the procedure ends.

CR-Form-v5.1

CHANGE REQUEST

⌘   **25.331** CR **1473**   ⌘**rev** **-** ⌘   Current version: **5.0.0** ⌘

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

Proposed change affects: ⌘   (U)SIM ☐   ME/UE **X**   Radio Access Network ☐   Core Network ☐

Title: ⌘	RRC connection release procedure in CELL_DCH state	
Source: ⌘	TSG-RAN WG2	
Work item code: ⌘	TEI4	***Date:*** ⌘ 2002-05-17
Category: ⌘ **A**		***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)

Reason for change: ⌘	There is a contradiction on the UE and UTRAN actions during the RRC connection release procedure in CELL_DCH state. When UTRAN receives the RRC CONNECTION RELEASE COMPLETE message, it releases the physical channel. However, as the specification says today, this would trigger recovery from radio link failure in the UE with a cell update procedure. The UE behaviour should be corrected to make sure the release procedure is as efficient as possible.
Summary of change: ⌘	In 8.1.4.5, it is stated that in case of radio link failure, the UE will instead of trigger a cell update procedure, it shall enter idle mode.
Consequences if not approved: ⌘	Unnecessary signalling and prolonged UE release.

Clauses affected: ⌘	8.1.4.5

Other specs affected: ⌘	☐	Other core specifications ⌘	25.331 v4.4.0, CR 1472
	☐	Test specifications	
	☐	O&M Specifications	

Other comments: ⌘	

How to create CRs using this form:
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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.

8.1.4.5 Cell re-selection or radio link failure

If the UE performs cell re-selection or the radio link failure criteria in subclause 8.5.6 is met at any time during the RRC connection release procedure and the UE has not yet entered idle mode, the UE shall:

> 1> if cell re-selection occurred (CELL_FACH state):

>> 2> perform a cell update procedure according to subclause 8.3.1 using the cause "Cell reselection".

> 1> if radio link failure occurred (CELL_DCH state):

>> 2> ~~perform a cell update procedure according to subclause 8.3.1 using the cause "radio link failure".~~

>> 2> release all its radio resources;

>> 2> indicate the release of the established signalling connections (as stored in the variable ESTABLISHED_SIGNALLING_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED_RABS) to upper layers;

>> 2> clear the variable ESTABLISHED_SIGNALLING_CONNECTIONS;

>> 2> clear the variable ESTABLISHED_RABS;

>> 2> enter idle mode;

>> 2> perform the actions specified in subclause 8.5.2 when entering idle mode;

>> 2> and the procedure ends.

CR-Form-v5.1

CHANGE REQUEST

⌘   **25.331** CR **1474**   ⌘**rev** **-** ⌘   Current version: **4.4.0** ⌘

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

Proposed change affects: ⌘   (U)SIM ☐   ME/UE **X**   Radio Access Network **X**   Core Network ☐

Title: ⌘	Correction to the TF size for DL TM DCCH in Default Configurations	
Source: ⌘	TSG-RAN WG2	
Work item code: ⌘	TEI4	***Date:*** ⌘ 13th- May 2002
Category: ⌘ **F**		***Release:*** ⌘ REL-4

Use one 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 TR 21.900.

Use one 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)

Reason for change: ⌘	The size of the TF of the DL TM DCCH to be used for UL Speech Rate Control is erroneous. The RB identity for the RB used for DL TM DCCH is missing in some places.
Summary of change: ⌘	The above TF size is corrected to be 3 bits. The RB identity is added in some plces for DL TM DCCH.
Consequences if not approved: ⌘	Erroneous specification

Clauses affected: ⌘	13.7

Other specs affected: ⌘	☐ Other core specifications ⌘	25.331 v5.0.0, CR 1475
	☐ Test specifications	
	☐ 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:

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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.

13.7 Parameter values for default radio configurations

The UE shall support the use of the default radio configurations that are specified in the following.

NOTE 1: These configurations are based on [41] and cover a number of RAB and signalling connection configurations.

In the table that is used to specify the parameter values for these default configurations, the following principles are used:

- Optional IEs that are not used are omitted;

- In case no parameter value is specified in a column, this means the value given the previous (left side) column applies.

NOTE 2: If needed, signalling radio bearer RB4 is established after the completion of handover.

NOTE 3: For each default configuration, the value of FDD, 3.84 Mcps TDD and 1.28 Mcps TDD parameters are specified. All parameters apply to FDD, 3.84 Mcps TDD and 1.28 Mcps TDD modes, unless explicitly stated otherwise. It should be noted that in this respect default configurations differ from pre-defined configurations, which only include parameter values for one mode.

NOTE 4: The transport format sizes, indicated in the following table, concern the RLC PDU size, since all configurations concern dedicated channels. The transport block sizes indicated in TS 34.108 are different since these include the size of the MAC header.

[…]

Configuration	10.2/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling	7.4/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling
Ref 34.108	N/A	N/A
Default configuration identity	11	12
RB INFORMATION		
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7, RB8: 8	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5-RB7: TM	RB1: UM RB2- RB3: AM RB5-RB6: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5- RB7: N/A	RB1: N/A RB2- RB3: as below RB5- RB6: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A RB5- RB7: FALSE	RB1- RB3: N/A RB5- RB6: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5- RB7: TM RB8: TM	RB1: UM RB2- RB3: AM RB5- RB6: TM RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5- RB8: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5- RB8: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5- RB87: N/A	RB1: N/A RB2- RB3: as below RB5- RB76: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A RB5- RB87: FALSE	RB1- RB3: N/A RB5- RB76: FALSE
rb-MappingInfo		
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch

>>>transportChannelIdentity	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3,	RB1- RB3: 3 RB5: 1, RB6: 2
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A
>>rlc-SizeList	RB1- RB3: configured RB5- RB7: N/A	RB1- RB3: configured RB5- RB6: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5
>DL-logicalChannelMappingList		
>>Mapping option 1	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3, RB8: 5	RB1- RB3: 3 RB5: 1, RB6: 2, RB7:4
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5- RB8: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH		
UL-AddReconfTransChInfoList		
>Uplink transport channel type	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4	TrCH1: 1, TrCH2: 2, TrCH3: 3
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information		
>>>tf0/ tf0,1	TrCH1: (0x65) TrCH2: (0x 99) TrCH3: (0x 40, 1x40) TrCH4: (0x144, 1x144)	TrCH1: (0x61) TrCH2: (0x 87) TrCH3: (0x 144, 1x144)
>>>>rlcSize	BitMode	BitMode
>>>>>>sizeType	TrCH1: type 1: 65 TrCH2: type 1: 99 TrCH3: type 1: 40 TrCH4: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 61 TrCH2: type 1: 87 TrCH3: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1-2: Zero TrCH3-4: Zero, one	TrCH1-2: Zero TrCH3: Zero, one
>>>>logicalChannelList	All	All
>>>tf 1	TrCH1: (1x39) TrCH2: (1x 53) TrCH3- TrCH4: N/A	TrCH1: (1x39) TrCH2: (1x53) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>rlc-Size	TrCH1-2: BitMode	TrCH1-2: BitMode
>>>>>>sizeType	TrCH1: 1: 39 TrCH2: 1: 53	TrCH1: 1: 39 TrCH1: 1: 53
>>>>numberOfTbSizeList	TrCH1-2: One	TrCH1-2: One
>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>>tf 2	TrCH1: (1x42) TrCH2: (1x63) TrCH3- TrCH4: N/A	TrCH1: (1x42) TrCH2: (1x63) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode

>>>>>sizeType	TrCH1: type 1: 42 TrCH2: type 1: 63	TrCH1: type 1: 42 TrCH2: type 1: 63
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 3	TrCH1: (1x55) TrCH2: (1x76) TrCH3- TrCH4: N/A	TrCH1: (1x55) TrCH2: (1x76) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 55 TrCH2: type 1: 76	TrCH1: type 1: 55 TrCH2: type 1: 76
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 4	TrCH1: (1x58) TrCH2: (1x99) TrCH3- TrCH4: N/A	TrCH1: (1x58) TrCH2: (1x87) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 58 TrCH2: type 1: 99	TrCH1: type 1: 58 TrCH2: type 1: 87
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 5	TrCH1: (1x65) TrCH2- TrCH4: N/A	TrCH1: (1x61) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks	TrCH1: One	TrCH1: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 42	TrCH1: type 1: 42
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>semistaticTF-Information		
>>>tti	TrCH1- TrCH3: 20 TrCH4: 40	TrCH1- TrCH2: 20 TrCH3: 40
>>>channelCodingType	Convolutional	Convolutional
>>>>codingRate	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third	TrCH1- TrCH2: Third TrCH3: Third
>>>rateMatchingAttribute	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160
>>>crc-Size	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16
DL-AddReconfTransChInfoList		
>Downlink transport channel type	dch	dch
>dl-TransportChannelIdentity		
>tfs-SignallingMode	Independent <Only tf0 on TrCH1 and tf0/tf1 on TrCH5 are different and shown below>	Independent <Only tf0 on TrCH1 and tf0/tf1 on TrCH4 are different and shown below>
>>transportFormatSet		
>>>dynamicTF-information		

>>>>tf0/ tf0,1	TrCH1: (1x0) TrCH5: (0x**3**~~7~~, 1x**3**~~7~~)	TrCH1: (1x0) TrCH4: (0x**3**~~7~~, 1x**3**~~7~~)
>>>>rlcSize	BitMode	bitMode
>>>>>sizeType	TrCH1: type 1: 0 TrCH5: type 1: **3**~~7~~	TrCH1: type 1: 0 TrCH4: type 1: **3**~~7~~
>>>>numberOfTbSizeList	TrCH1: One TrCH5: Zero, one	TrCH1: One TrCH4: Zero, one
>>>>logicalChannelList	All	All
>>>semistaticTF-Information	same as UL except for TrCH5	same as DL except for TrCH4
>>>>tti	TrCH5: 20	TrCH4: 20
>>>>channelCodingType	Convolutional	Convolutional
>>>>>codingRate	TrCH5: Third	TrCH4: Third
>>>>rateMatchingAttribute	TrCH5: 200	TrCH4: 200
>>>>crc-Size	TrCH5: 12	TrCH4: 12
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4,	TrCH1: 1, TrCH2: 2, TrCH3: 3
>dch-QualityTarget		
>>bler-QualityValue	TrCH1: 7×10^{-3} TrCH2- TrCH5: Absent	TrCH1: 7×10^{-3} TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON		
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFC list		
>>>>>>TFC 1	(TF0, TF0, TF0, TF0)	(TF0, TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 2	(TF1, TF0, TF0, TF0)	(TF1, TF0, TF0)
>>>>>>>ctfc	1	1
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A
>>>>>>>>βd	N/A	N/A
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 3	(TF2, TF1, TF0, TF0)	(TF2, TF1, TF0)
>>>>>>>ctfc	8	8
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 4	(TF3, TF2, TF0, TF0)	(TF3, TF2, TF0)
>>>>>>>ctfc	15	15
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0

>>>>>>TFC 5	(TF4, TF3, TF0, TF0)	(TF4, TF3, TF0)
>>>>>>>ctfc	22	22
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 6	(TF5, TF4, TF1, TF0)	(TF5, TF4, TF0)
>>>>>>>ctfc	59	29
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 7	(TF0, TF0, TF0, TF1)	(TF0, TF0, TF1)
>>>>>>>ctfc	60	30
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 8	(TF1, TF0, TF0, TF1)	(TF1, TF0, TF1)
>>>>>>>ctfc	61	31
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 9	(TF2, TF1, TF0, TF1)	(TF2, TF1, TF1)
>>>>>>>ctfc	68	38
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>referenceTFCId		
>>>>>>TFC 10	(TF3, TF2, TF0, TF1)	(TF3, TF2, TF1)
>>>>>>>ctfc	75	45
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 11	(TF4, TF3, TF0, TF1)	(TF4, TF3, TF1)
>>>>>>>ctfc	82	52
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>referenceTFCId		
>>>>>>TFC 12	(TF5, TF4, TF1, TF1)	(TF5, TF4, TF1)
>>>>>>>ctfc	97	59
>>>>>>>gainFactorInformation	signalled	signalled
>>>>>>>>βc (FDD only)	11	11
>>>>>>>>βd	15	15
>>>>>>>>referenceTFCId		
> TFC subset list		
>>TFC subset 1	(speech rate 10.2)	(speech rate 7.4)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC6, TFC12)	(TFC1, TFC2, TFC7, TFC8, TFC6, TFC12)
>>TFC subset 2	(speech rate 6.7)	(speech rate 6.7)

>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC5, TFC11)	(TFC1, TFC2, TFC7, TFC8, TFC5, TFC11)
>>TFC subset 3	(speech rate 5.9)	(speech rate 5.9)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC4, TFC10)	(TFC1, TFC2, TFC7, TFC8, TFC4, TFC10)
>>TFC subset 4	(speech rate 4.75)	(speech rate 4.75)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC3, TFC9)	(TFC1, TFC2, TFC7, TFC8, TFC3, TFC9)
dl-CommonTransChInfo		
>tfcs-SignallingMode	Independent	Independent
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>dl-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFCS list		
>>>>>>TFC 1	(TF0, TF0, TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>TFC 2	(TF1, TF0, TF0, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1
>>>>>>TFC 3	(TF2, TF1, TF0, TF0, TF0)	(TF2, TF1, TF0, TF0)
>>>>>>>ctfc	8	8
>>>>>>TFC 4	(TF3, TF2, TF0, TF0, TF0)	(TF3, TF2, TF0, TF0)
>>>>>>>ctfc	15	15
>>>>>>TFC 5	(TF4, TF3, TF0, TF0, TF0)	(TF4, TF3, TF0, TF0)
>>>>>>>ctfc	22	22
>>>>>>TFC 6	(TF5, TF4, TF1, TF0, TF0)	(TF5, TF4, TF0, TF0)
>>>>>>>ctfc	59	29
>>>>>>TFC 7	(TF0, TF0, TF0, TF1, TF0)	(TF0, TF0, TF1, TF0)
>>>>>>>ctfc	60	30
>>>>>>TFC 8	(TF1, TF0, TF0, TF1, TF0)	(TF1, TF0, TF1, TF0)
>>>>>>>ctfc	61	31
>>>>>>TFC 9	(TF2, TF1, TF0, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc	68	37
>>>>>>TFC 10	(TF3, TF2, TF0, TF1, TF0)	(TF3, TF2, TF1, TF0)
>>>>>>>ctfc	75	55
>>>>>>TFC 11	(TF4, TF3, TF0, TF1, TF0)	(TF4, TF3, TF1, TF0)
>>>>>>>ctfc	82	52
>>>>>>TFC 12	(TF5, TF4, TF1, TF1, TF0)	(TF5, TF4, TF1, TF0)
>>>>>>>ctfc	119	59
>>>>>>TFC 13	(TF0, TF0, TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc	120	60

>>>>>>TFC 14	(TF1, TF0, TF0, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc	121	61
>>>>>>TFC 15	(TF2, TF1, TF0, TF0, TF1)	(TF2, TF1, TF0, TF1)
>>>>>>>ctfc	128	68
>>>>>>TFC 16	(TF3, TF2, TF0, TF0, TF1)	(TF3, TF2, TF0, TF1)
>>>>>>>ctfc	135	75
>>>>>>TFC 17	(TF4, TF3, TF0, TF0, TF1)	(TF4, TF3, TF0, TF1)
>>>>>>>ctfc	152	82
>>>>>>TFC 18	(TF5, TF4, TF1, TF0, TF1)	(TF5, TF4, TF0, TF1)
>>>>>>>ctfc	189	89
>>>>>>TFC 19	(TF0, TF0, TF0, TF1, TF1)	(TF0, TF0, TF1, TF1)
>>>>>>>ctfc	180	90
>>>>>>TFC 20	(TF1, TF0, TF0, TF1, TF1)	(TF1, TF0, TF1, TF1)
>>>>>>>ctfc	181	91
>>>>>>TFC 21	(TF2, TF1, TF0, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>>>ctfc	188	98
>>>>>>TFC 22	(TF3, TF2, TF0, TF1, TF1)	(TF3, TF2, TF1, TF1)
>>>>>>>ctfc	195	105
>>>>>>TFC 23	(TF4, TF3, TF0, TF1, TF1)	(TF4, TF3, TF1, TF1)
>>>>>>>ctfc	239	112
>>>>>>TFC 24	(TF5, TF4, TF1, TF1, TF1)	(TF5, TF4, TF1, TF1)
>>>>>>>ctfc	218	119
PhyCH INFORMATION FDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>powerControlAlgorithm	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1
>tfci-Existence	TRUE	TRUE
>puncturingLimit	0.88	0.88
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>spreadingFactor	128	128
>>pilotBits	4	4
>>positionFixed	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>dpch-ConstantValue	-20	-20
>commonTimeslotInfo		
>>secondInterleavingMode	frameRelated	frameRelated
>>tfci-Coding	16	16
>>puncturingLimit	0.60	0.60
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		

>>>secondInterleavingMode	frameRelated	frameRelated
>>>tfci-Coding	16	16
>>>puncturingLimit	0.60	0.60
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD		
UL-DPCH-InfoPredef		
>commonTimeslotInfo		
>>secondInterleavingMode	frame Related	frame Related
>>tfci-Coding	16	16
>>puncturingLimit	0.64	0.64
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMode	frame Related	frame Related
>>>tfci-Coding	16	16
>>>puncturingLimit	0.64	0.64
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1

CR-Form-v5.1

CHANGE REQUEST

| ⌘ | **25.331** CR **1475** | ⌘**rev** | **-** | ⌘ | Current version: | **5.0.0** | ⌘ |

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

Proposed change affects: ⌘   (U)SIM ☐   ME/UE **X**   Radio Access Network **X**   Core Network ☐

Title:	⌘	Correction to the TF size for DL TM DCCH in Default Configurations

Source:	⌘	TSG-RAN WG2

Work item code:	⌘	TEI4	*Date:* ⌘	13th- May 2002

Category:	⌘	**A**	*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)

Reason for change:	⌘	The size of the TF of the DL TM DCCH to be used for UL Speech Rate Control is erroneous. The RB identity for the RB used for DL TM DCCH is missing in some places.

Summary of change:	⌘	The above TF size is corrected to be 3 bits. The RB identity is added in some plces for DL TM DCCH.

Consequences if not approved:	⌘	Erroneous specification

Clauses affected:	⌘	13.7

Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v4.4.0, CR 1474

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.

13.7   Parameter values for default radio configurations

[…]

Configuration	10.2/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling	7.4/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling
Ref 34.108	N/A	N/A
Default configuration identity	11	12
RB INFORMATION		
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7, RB8: 8	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5-RB7: TM	RB1: UM RB2- RB3: AM RB5-RB6: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5- RB7: N/A	RB1: N/A RB2- RB3: as below RB5- RB6: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A RB5- RB7: FALSE	RB1- RB3: N/A RB5- RB6: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5- RB7: TM RB8: TM	RB1: UM RB2- RB3: AM RB5- RB6: TM RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5- RB8: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5- RB8: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5- RB87: N/A	RB1: N/A RB2- RB3: as below RB5- RB76: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A RB5- RB87: FALSE	RB1- RB3: N/A RB5- RB76: FALSE
rb-MappingInfo		
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch

>>>transportChannelIdentity	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3,	RB1- RB3: 3 RB5: 1, RB6: 2
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A
>>rlc-SizeList	RB1- RB3: configured RB5- RB7: N/A	RB1- RB3: configured RB5- RB6: N/A
>>mac- LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5
>DL- logicalChannelMappingList		
>>Mapping option 1	One mapping option	One mapping option
>>>dl- TransportChannelType	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3, RB8: 5	RB1- RB3: 3 RB5: 1, RB6: 2, RB7:4
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5- RB8: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH		
UL- AddReconfTransChInfoList		
>Uplink transport channel type	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4	TrCH1: 1, TrCH2: 2, TrCH3: 3
>transportFormatSet	DedicatedTransChT FS	DedicatedTransChT FS
>>dynamicTF-information		
>>>tf0/ tf0,1	TrCH1: (0x65) TrCH2: (0x 99) TrCH3: (0x 40, 1x40) TrCH4: (0x144, 1x144)	TrCH1: (0x61) TrCH2: (0x 87) TrCH3: (0x 144, 1x144)
>>>>rlcSize	BitMode	BitMode
>>>>>sizeType	TrCH1: type 1: 65 TrCH2: type 1: 99 TrCH3: type 1: 40 TrCH4: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 61 TrCH2: type 1: 87 TrCH3: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1-2: Zero TrCH3-4: Zero, one	TrCH1-2: Zero TrCH3: Zero, one
>>>>logicalChannelList	All	All
>>>tf 1	TrCH1: (1x39) TrCH2: (1x 53) TrCH3- TrCH4: N/A	TrCH1: (1x39) TrCH2: (1x53) TrCH3: N/A
>>>>numberOfTransportBl ocks	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>rlc-Size	TrCH1-2: BitMode	TrCH1-2: BitMode
>>>>>sizeType	TrCH1: 1: 39 TrCH2: 1: 53	TrCH1: 1: 39 TrCH1: 1: 53
>>>>numberOfTbSizeList	TrCH1-2: One	TrCH1-2: One
>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>>tf 2	TrCH1: (1x42) TrCH2: (1x63) TrCH3- TrCH4: N/A	TrCH1: (1x42) TrCH2: (1x63) TrCH3: N/A
>>>>numberOfTransportBl ocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode

>>>>>sizeType	TrCH1: type 1: 42 TrCH2: type 1: 63	TrCH1: type 1: 42 TrCH2: type 1: 63
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 3	TrCH1: (1x55) TrCH2: (1x76) TrCH3- TrCH4: N/A	TrCH1: (1x55) TrCH2: (1x76) TrCH3: N/A
>>>>numberOfTransportBl ocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 55 TrCH2: type 1: 76	TrCH1: type 1: 55 TrCH2: type 1: 76
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 4	TrCH1: (1x58) TrCH2: (1x99) TrCH3- TrCH4: N/A	TrCH1: (1x58) TrCH2: (1x87) TrCH3: N/A
>>>>numberOfTransportBl ocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 58 TrCH2: type 1: 99	TrCH1: type 1: 58 TrCH2: type 1: 87
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 5	TrCH1: (1x65) TrCH2- TrCH4: N/A	TrCH1: (1x61) TrCH2- TrCH4: N/A
>>>>numberOfTransportBl ocks	TrCH1: One	TrCH1: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 42	TrCH1: type 1: 42
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>semistaticTF-Information		
>>>tti	TrCH1- TrCH3: 20 TrCH4: 40	TrCH1- TrCH2: 20 TrCH3: 40
>>>channelCodingType	Convolutional	Convolutional
>>>>codingRate	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third	TrCH1- TrCH2: Third TrCH3: Third
>>>rateMatchingAttribute	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160
>>>crc-Size	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16
DL-AddReconfTransChInfoList		
>Downlink transport channel type	dch	dch
>dl-TransportChannelIdentity		
>tfs-SignallingMode	Independent <Only tf0 on TrCH1 and tf0/tf1 on TrCH5 are different and shown below>	Independent <Only tf0 on TrCH1 and tf0/tf1 on TrCH4 are different and shown below>
>>transportFormatSet		
>>>dynamicTF-information		

>>>>tf0/ tf0,1	TrCH1: (1x0) TrCH5: (0x37, 1x37)	TrCH1: (1x0) TrCH4: (0x37, 1x37)
>>>>rlcSize	BitMode	bitMode
>>>>>sizeType	TrCH1: type 1: 0 TrCH5: type 1: 37	TrCH1: type 1: 0 TrCH4: type 1: 37
>>>>numberOfTbSizeList	TrCH1: One TrCH5: Zero, one	TrCH1: One TrCH4: Zero, one
>>>>logicalChannelList	All	All
>>>semistaticTF-Information	same as UL except for TrCH5	same as DL except for TrCH4
>>>>tti	TrCH5: 20	TrCH4: 20
>>>>channelCodingType	Convolutional	Convolutional
>>>>>codingRate	TrCH5: Third	TrCH4: Third
>>>>rateMatchingAttribute	TrCH5: 200	TrCH4: 200
>>>>crc-Size	TrCH5: 12	TrCH4: 12
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4,	TrCH1: 1, TrCH2: 2, TrCH3: 3
>dch-QualityTarget		
>>bler-QualityValue	TrCH1: $7x10^{-3}$ TrCH2- TrCH5: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON		
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFC list		
>>>>>>TFC 1	(TF0, TF0, TF0, TF0)	(TF0, TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 2	(TF1, TF0, TF0, TF0)	(TF1, TF0, TF0)
>>>>>>>ctfc	1	1
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A
>>>>>>>>βd	N/A	N/A
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 3	(TF2, TF1, TF0, TF0)	(TF2, TF1, TF0)
>>>>>>>ctfc	8	8
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 4	(TF3, TF2, TF0, TF0)	(TF3, TF2, TF0)
>>>>>>>ctfc	15	15
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0

>>>>>>TFC 5	(TF4, TF3, TF0, TF0)	(TF4, TF3, TF0)
>>>>>>>ctfc	22	22
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 6	(TF5, TF4, TF1, TF0)	(TF5, TF4, TF0)
>>>>>>>ctfc	59	29
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 7	(TF0, TF0, TF0, TF1)	(TF0, TF0, TF1)
>>>>>>>ctfc	60	30
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 8	(TF1, TF0, TF0, TF1)	(TF1, TF0, TF1)
>>>>>>>ctfc	61	31
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 9	(TF2, TF1, TF0, TF1)	(TF2, TF1, TF1)
>>>>>>>ctfc	68	38
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>referenceTFCId		
>>>>>>TFC 10	(TF3, TF2, TF0, TF1)	(TF3, TF2, TF1)
>>>>>>>ctfc	75	45
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 11	(TF4, TF3, TF0, TF1)	(TF4, TF3, TF1)
>>>>>>>ctfc	82	52
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>referenceTFCId		
>>>>>>TFC 12	(TF5, TF4, TF1, TF1)	(TF5, TF4, TF1)
>>>>>>>ctfc	97	59
>>>>>>>gainFactorInformation	signalled	signalled
>>>>>>>>βc (FDD only)	11	11
>>>>>>>>βd	15	15
>>>>>>>>referenceTFCId		
> TFC subset list		
>>TFC subset 1	(speech rate 10.2)	(speech rate 7.4)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC6, TFC12)	(TFC1, TFC2, TFC7, TFC8, TFC6, TFC12)
>>TFC subset 2	(speech rate 6.7)	(speech rate 6.7)

>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC5, TFC11)	(TFC1, TFC2, TFC7, TFC8, TFC5, TFC11)
>>TFC subset 3	(speech rate 5.9)	(speech rate 5.9)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC4, TFC10)	(TFC1, TFC2, TFC7, TFC8, TFC4, TFC10)
>>TFC subset 4	(speech rate 4.75)	(speech rate 4.75)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC3, TFC9)	(TFC1, TFC2, TFC7, TFC8, TFC3, TFC9)
dl-CommonTransChInfo		
>tfcs-SignallingMode	Independent	Independent
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>dl-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFCS list		
>>>>>>TFC 1	(TF0, TF0, TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>TFC 2	(TF1, TF0, TF0, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1
>>>>>>TFC 3	(TF2, TF1, TF0, TF0, TF0)	(TF2, TF1, TF0, TF0)
>>>>>>>ctfc	8	8
>>>>>>TFC 4	(TF3, TF2, TF0, TF0, TF0)	(TF3, TF2, TF0, TF0)
>>>>>>>ctfc	15	15
>>>>>>TFC 5	(TF4, TF3, TF0, TF0, TF0)	(TF4, TF3, TF0, TF0)
>>>>>>>ctfc	22	22
>>>>>>TFC 6	(TF5, TF4, TF1, TF0, TF0)	(TF5, TF4, TF0, TF0)
>>>>>>>ctfc	59	29
>>>>>>TFC 7	(TF0, TF0, TF0, TF1, TF0)	(TF0, TF0, TF1, TF0)
>>>>>>>ctfc	60	30
>>>>>>TFC 8	(TF1, TF0, TF0, TF1, TF0)	(TF1, TF0, TF1, TF0)
>>>>>>>ctfc	61	31
>>>>>>TFC 9	(TF2, TF1, TF0, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc	68	37
>>>>>>TFC 10	(TF3, TF2, TF0, TF1, TF0)	(TF3, TF2, TF1, TF0)
>>>>>>>ctfc	75	55
>>>>>>TFC 11	(TF4, TF3, TF0, TF1, TF0)	(TF4, TF3, TF1, TF0)
>>>>>>>ctfc	82	52
>>>>>>TFC 12	(TF5, TF4, TF1, TF1, TF0)	(TF5, TF4, TF1, TF0)
>>>>>>>ctfc	119	59
>>>>>>TFC 13	(TF0, TF0, TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc	120	60

>>>>>>TFC 14	(TF1, TF0, TF0, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc	121	61
>>>>>>TFC 15	(TF2, TF1, TF0, TF0, TF1)	(TF2, TF1, TF0, TF1)
>>>>>>>ctfc	128	68
>>>>>>TFC 16	(TF3, TF2, TF0, TF0, TF1)	(TF3, TF2, TF0, TF1)
>>>>>>>ctfc	135	75
>>>>>>TFC 17	(TF4, TF3, TF0, TF0, TF1)	(TF4, TF3, TF0, TF1)
>>>>>>>ctfc	152	82
>>>>>>TFC 18	(TF5, TF4, TF1, TF0, TF1)	(TF5, TF4, TF0, TF1)
>>>>>>>ctfc	189	89
>>>>>>TFC 19	(TF0, TF0, TF0, TF1, TF1)	(TF0, TF0, TF1, TF1)
>>>>>>>ctfc	180	90
>>>>>>TFC 20	(TF1, TF0, TF0, TF1, TF1)	(TF1, TF0, TF1, TF1)
>>>>>>>ctfc	181	91
>>>>>>TFC 21	(TF2, TF1, TF0, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>>>ctfc	188	98
>>>>>>TFC 22	(TF3, TF2, TF0, TF1, TF1)	(TF3, TF2, TF1, TF1)
>>>>>>>ctfc	195	105
>>>>>>TFC 23	(TF4, TF3, TF0, TF1, TF1)	(TF4, TF3, TF1, TF1)
>>>>>>>ctfc	239	112
>>>>>>TFC 24	(TF5, TF4, TF1, TF1, TF1)	(TF5, TF4, TF1, TF1)
>>>>>>>ctfc	218	119
PhyCH INFORMATION FDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>powerControlAlgorithm	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1
>tfci-Existence	TRUE	TRUE
>puncturingLimit	0.88	0.88
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>spreadingFactor	128	128
>>pilotBits	4	4
>>positionFixed	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>dpch-ConstantValue	-20	-20
>commonTimeslotInfo		
>>secondInterleavingMode	frameRelated	frameRelated
>>tfci-Coding	16	16
>>puncturingLimit	0.60	0.60
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		

>>>secondInterleavingMode	frameRelated	frameRelated
>>>tfci-Coding	16	16
>>>puncturingLimit	0.60	0.60
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD		
UL-DPCH-InfoPredef		
>commonTimeslotInfo		
>>secondInterleavingMode	frame Related	frame Related
>>tfci-Coding	16	16
>>puncturingLimit	0.64	0.64
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMode	frame Related	frame Related
>>>tfci-Coding	16	16
>>>puncturingLimit	0.64	0.64
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** CR **1476** ⌘**rev** **-** ⌘ Current version: **4.4.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title: ⌘	Corrections in ASN.1 related to SRNS relocation	
Source: ⌘	TSG-RAN WG2	
Work item code: ⌘	TEI4	***Date:*** ⌘ 10 May 2002
Category: ⌘ **F**		***Release:*** ⌘ REL-4

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)*

Reason for change: ⌘	"Downlink counter synchronisation info" IE is used to inform UE about SRNS relocation. This is clearly specified in Chapter 8. In Rel-4 and Rel-5 ASN.1 "DL-CounterSynchronisationInfo" has been erroneously replaced by "RB-WithPDCP-InfoList" in several RRC messages that are used in SRNS relocation.
Summary of change: ⌘	"RB-WithPDCP-InfoList" is changed back to "DL-CounterSynchronisationInfo" in Rel-4 and Rel-5. "DL-CounterSynchronisationInfo" contains "RB-WithPDCP-InfoList" hence no functionality is lost in this change. This correction makes Rel-4 and Rel-5 consistent with Rel'99.
Consequences if not approved: ⌘	Potential failure of SRNS relocation in Rel-4 and Rel-5.

Clauses affected: ⌘	11.2
Other specs affected: ⌘	☐ Other core specifications ⌘ 25.331 v5.0.0, CR 1477 ☐ Test specifications ☐ 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/3G_Specs/CRs.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.

11.2 PDU definitions

```
--****************************************************************
--
-- TABULAR: The message type and integrity check info are not
-- visible in this module as they are defined in the class module.
-- Also, all FDD/TDD specific choices have the FDD option first
-- and TDD second, just for consistency.
--
--****************************************************************

PDU-definitions DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

IMPORTS

-- Core Network IEs :
    CN-DomainIdentity,
    CN-InformationInfo,
    CN-InformationInfoFull,
    NAS-Message,
    PagingRecordTypeID,
-- UTRAN Mobility IEs :
    CellIdentity,
    CellIdentity-PerRL-List,
    URA-Identity,
-- User Equipment IEs :
    ActivationTime,
    C-RNTI,
    CapabilityUpdateRequirement,
    CapabilityUpdateRequirement-r4,
    CapabilityUpdateRequirement-r4-ext,
    CellUpdateCause,
    CipheringAlgorithm,
    CipheringModeInfo,
    DSCH-RNTI,
    EstablishmentCause,
    FailureCauseWithProtErr,
    FailureCauseWithProtErrTrId,
    InitialUE-Identity,
    IntegrityProtActivationInfo,
    IntegrityProtectionModeInfo,
    N-308,
    PagingCause,
    PagingRecordList,
    ProtocolErrorIndicator,
    ProtocolErrorIndicatorWithMoreInfo,
    Rb-timer-indicator,
    RedirectionInfo,
    RejectionCause,
    ReleaseCause,
    RRC-StateIndicator,
    RRC-TransactionIdentifier,
    SecurityCapability,
    START-Value,
    STARTList,
    U-RNTI,
    U-RNTI-Short,
    UE-RadioAccessCapability,
    UE-RadioAccessCapability-r4-ext,
    UE-RadioAccessCapability-v370ext,
    UE-RadioAccessCapability-v380ext,
    UE-RadioAccessCapability-v3a0ext,
    UE-RadioAccessCapability-v4xyext,
    DL-PhysChCapabilityFDD-v380ext,
    UE-ConnTimersAndConstants,
    UE-ConnTimersAndConstants-v3a0ext,
    UE-SecurityInformation,
    URA-UpdateCause,
```

```
        UTRAN-DRX-CycleLengthCoefficient,
        WaitTime,
-- Radio Bearer IEs :
        DefaultConfigIdentity,
        DefaultConfigMode,
        DL-CounterSynchronisationInfo,
        PredefinedConfigIdentity,
        PredefinedConfigStatusList,
        RAB-Info,
        RAB-Info-Post,
        RAB-InformationList,
        RAB-InformationReconfigList,
        RAB-InformationSetupList,
        RAB-InformationSetupList-r4,
        RB-ActivationTimeInfoList,
        RB-COUNT-C-InformationList,
        RB-COUNT-C-MSB-InformationList,
        RB-IdentityList,
        RB-InformationAffectedList,
        RB-InformationReconfigList,
        RB-InformationReconfigList-r4,
        RB-InformationReleaseList,
        RB-WithPDCP-InfoList,   SRB-InformationSetupList,
        SRB-InformationSetupList2,
        UL-CounterSynchronisationInfo,
-- Transport Channel IEs:
        CPCH-SetID,
        DL-AddReconfTransChInfo2List,
        DL-AddReconfTransChInfoList,
        DL-AddReconfTransChInfoList-r4,
        DL-CommonTransChInfo,
        DL-CommonTransChInfo-r4,
        DL-DeletedTransChInfoList,
        DRAC-StaticInformationList,
        TFC-Subset,
        TFCS-Identity,
        UL-AddReconfTransChInfoList,
        UL-CommonTransChInfo,
        UL-CommonTransChInfo-r4,
        UL-DeletedTransChInfoList,
-- Physical Channel IEs :
        Alpha,
        CCTrCH-PowerControlInfo,
        CCTrCH-PowerControlInfo-r4,
        ConstantValue,
        ConstantValueTdd,
        CPCH-SetInfo,
        DL-CommonInformation,
        DL-CommonInformation-r4,
        DL-CommonInformationPost,
        DL-InformationPerRL,
        DL-InformationPerRL-List,
        DL-InformationPerRL-List-r4,
        DL-InformationPerRL-ListPostFDD,
        DL-InformationPerRL-PostTDD,
        DL-InformationPerRL-PostTDD-LCR-r4,
        DL-PDSCH-Information,
        DPCH-CompressedModeStatusInfo,
        FrequencyInfo,
        FrequencyInfoFDD,
        FrequencyInfoTDD,
        MaxAllowedUL-TX-Power,
        OpenLoopPowerControl-IPDL-TDD-r4,
        PDSCH-CapacityAllocationInfo,
        PDSCH-CapacityAllocationInfo-r4,
        PDSCH-Identity,
        PrimaryCCPCH-TX-Power,
        PUSCH-CapacityAllocationInfo,
        PUSCH-CapacityAllocationInfo-r4,
        PUSCH-Identity,
        RL-AdditionInformationList,
        RL-RemovalInformationList,
        SpecialBurstScheduling,
        SSDT-Information,
        TFC-ControlDuration,
        SSDT-UL-r4,
        TimeslotList,
        TimeslotList-r4,
```

```
        TX-DiversityMode,
        UL-ChannelRequirement,
        UL-ChannelRequirement-r4,
        UL-ChannelRequirementWithCPCH-SetID,
        UL-ChannelRequirementWithCPCH-SetID-r4,
        UL-DPCH-Info,
        UL-DPCH-Info-r4,
        UL-DPCH-InfoPostFDD,
        UL-DPCH-InfoPostTDD,
        UL-DPCH-InfoPostTDD-LCR-r4,
        UL-SynchronisationParameters-r4,
        UL-TimingAdvance,
        UL-TimingAdvanceControl,
        UL-TimingAdvanceControl-r4,
-- Measurement IEs :
        AdditionalMeasurementID-List,
        Frequency-Band,
        EventResults,
        InterFreqEventResults-LCR-r4-ext,
        InterRAT-TargetCellDescription,
        MeasuredResults,
        MeasuredResults-v390ext,
        MeasuredResultsList,
        MeasuredResultsList-LCR-r4-ext,
        MeasuredResultsOnRACH,
        MeasurementCommand,
        MeasurementCommand-r4,
        MeasurementIdentity,
        MeasurementReportingMode,
        PrimaryCCPCH-RSCP,
        SFN-Offset-Validity,
        TimeslotListWithISCP,
        TrafficVolumeMeasuredResultsList,
        UE-Positioning-GPS-AssistanceData,
        UE-Positioning-Measurement-v390ext,
        UE-Positioning-OTDOA-AssistanceData,
        UE-Positioning-OTDOA-AssistanceData-r4ext,
        UE-Positioning-OTDOA-AssistanceData-UEB,
        UE-Positioning-IPDL-Parameters-TDD-r4-ext,
-- Other IEs :
        BCCH-ModificationInfo,
        CDMA2000-MessageList,
        GSM-MessageList,
        InterRAT-ChangeFailureCause,
        InterRAT-HO-FailureCause,
        InterRAT-UE-RadioAccessCapabilityList,
        InterRAT-UE-SecurityCapList,
        IntraDomainNasNodeSelector,
        ProtocolErrorMoreInformation,
        Rplmn-Information,
        Rplmn-Information-r4,
        SegCount,
        SegmentIndex,
        SFN-Prime,
        SIB-Data-fixed,
        SIB-Data-variable,
        SIB-Type
FROM InformationElements

    maxSIBperMsg
FROM Constant-definitions;

-- **************************************************
--
-- ACTIVE SET UPDATE (FDD only)
--
-- **************************************************

ActiveSetUpdate ::= CHOICE {
    r3                              SEQUENCE {
        activeSetUpdate-r3              ActiveSetUpdate-r3-IEs,
        v4xyNonCriticalExtensions      SEQUENCE {
            activeSetUpdate-v4xyext    ActiveSetUpdate-v4xyext-IEs,
            nonCriticalExtensions          SEQUENCE {} OPTIONAL
        } OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier      RRC-TransactionIdentifier,
        criticalExtensions             SEQUENCE {}
```

```
    }
}

ActiveSetUpdate-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
        integrityProtectionModeInfo      IntegrityProtectionModeInfo            OPTIONAL,
        cipheringModeInfo                CipheringModeInfo                      OPTIONAL,
        activationTime                   ActivationTime                         OPTIONAL,
        newU-RNTI                        U-RNTI                                 OPTIONAL,
    -- Core network IEs
        cn-InformationInfo               CN-InformationInfo                     OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo    DL-CounterSynchronisationInfo          OPTIONAL,
    -- Physical IEs
        maxAllowedUL-TX-Power            MaxAllowedUL-TX-Power                  OPTIONAL,
        rl-AdditionInformationList       RL-AdditionInformationList             OPTIONAL,
        rl-RemovalInformationList        RL-RemovalInformationList              OPTIONAL,
        tx-DiversityMode                 TX-DiversityMode                       OPTIONAL,
        ssdt-Information                 SSDT-Information                       OPTIONAL
}

ActiveSetUpdate-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information. FDD only.
        ssdt-UL                          SSDT-UL-r4                             OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE RL-AdditionInformationList included in this message
        cell-id-PerRL-List               CellIdentity-PerRL-List                OPTIONAL
}


-- **************************************************
--
-- ACTIVE SET UPDATE COMPLETE (FDD only)
--
-- **************************************************

ActiveSetUpdateComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo       IntegrityProtActivationInfo            OPTIONAL,
    -- Radio bearer IEs
        rb-UL-CiphActivationTimeInfo     RB-ActivationTimeInfoList              OPTIONAL,
        ul-CounterSynchronisationInfo    UL-CounterSynchronisationInfo          OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions            SEQUENCE {} OPTIONAL
}

-- **************************************************
--
-- ACTIVE SET UPDATE FAILURE (FDD only)
--
-- **************************************************

ActiveSetUpdateFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
        failureCause                     FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions            SEQUENCE {} OPTIONAL
}

-- **************************************************
--
-- Assistance Data Delivery
--
-- **************************************************

AssistanceDataDelivery ::= CHOICE {
    r3                               SEQUENCE {
        assistanceDataDelivery-r3        AssistanceDataDelivery-r3-IEs,
        v3aoNonCriticalExetensions       SEQUENCE {
            assistanceDataDelivery-v3a0ext  AssistanceDataDelivery-v3a0ext,
            v4xyNonCriticalExtensions       SEQUENCE {
                assistanceDataDelivery-v4xyext
                                              AssistanceDataDelivery-v4xyext-IEs,
                nonCriticalExtensions           SEQUENCE {}                    OPTIONAL
```

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```
            }   OPTIONAL
        }   OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

AssistanceDataDelivery-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
    rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- Measurement Information Elements
    ue-positioning-GPS-AssistanceData           UE-Positioning-GPS-AssistanceData
    OPTIONAL,
    ue-positioning-OTDOA-AssistanceData-UEB     UE-Positioning-OTDOA-AssistanceData-UEB
    OPTIONAL
}

AssistanceDataDelivery-v3a0ext ::= SEQUENCE {
    sfn-Offset-Validity                 SFN-Offset-Validity     OPTIONAL
}

AssistanceDataDelivery-v4xyext-IEs ::= SEQUENCE {
    ue-Positioning-OTDOA-AssistanceData-r4ext   UE-Positioning-OTDOA-AssistanceData-r4ext   OPTIONAL
}

 -- **************************************************
--
-- CELL CHANGE ORDER FROM UTRAN
--
-- **************************************************

CellChangeOrderFromUTRAN ::= CHOICE {
    r3                              SEQUENCE {
        cellChangeOrderFromUTRAN-IEs        CellChangeOrderFromUTRAN-r3-IEs,
        nonCriticalExtensions               SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

CellChangeOrderFromUTRAN-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        -- dummy is not used in this version of the specification, it should
        -- not be sent and if received it should be ignored.
        dummy                           IntegrityProtectionModeInfo         OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        rab-InformationList             RAB-InformationList                 OPTIONAL,
        interRAT-TargetCellDescription  InterRAT-TargetCellDescription
}

-- **************************************************
--
-- CELL CHANGE ORDER FROM UTRAN FAILURE
--
-- **************************************************

CellChangeOrderFromUTRANFailure ::= CHOICE {
    r3                              SEQUENCE {
        cellChangeOrderFromUTRANFailure-r3
                                        CellChangeOrderFromUTRANFailure-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    -- dummy is not used in this version of the specification and it
    -- should be ignored.
    dummy                           SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

CellChangeOrderFromUTRANFailure-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
```

```
                    -- dummy is not used in this version of the specification, it should
                    -- not be sent and if received it should be ignored.
                    dummy                               IntegrityProtectionModeInfo         OPTIONAL,
                    interRAT-ChangeFailureCause         InterRAT-ChangeFailureCause
}

-- **************************************************
--
-- CELL UPDATE
--
-- **************************************************

CellUpdate ::= SEQUENCE {
    -- User equipment IEs
        u-RNTI                          U-RNTI,
        startList           STARTList,
        am-RLC-ErrorIndicationRb2-3or4      BOOLEAN,
        am-RLC-ErrorIndicationRb5orAbove    BOOLEAN,
        cellUpdateCause                     CellUpdateCause,
        -- TABULAR: RRC transaction identifier is nested in FailureCauseWithProtErrTrId
        failureCause                        FailureCauseWithProtErrTrId         OPTIONAL,
        rb-timer-indicator                  Rb-timer-indicator,
    -- Measurement IEs
        measuredResultsOnRACH               MeasuredResultsOnRACH               OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
}

-- **************************************************
--
-- CELL UPDATE CONFIRM
--
-- **************************************************

CellUpdateConfirm ::= CHOICE {
    r3                                  SEQUENCE {
        cellUpdateConfirm-r3                CellUpdateConfirm-r3-IEs,
        v3a0NonCriticalExtensions               SEQUENCE {
            cellUpdateConfirm-v3a0ext           CellUpdateConfirm-v3a0ext,
            v4xyNonCriticalExtensions               SEQUENCE {
                cellUpdateConfirm-v4xyext           CellUpdateConfirm-v4xyext-IEs,
                nonCriticalExtensions               SEQUENCE {} OPTIONAL
            }       OPTIONAL
        }       OPTIONAL
    },
    later-than-r3                       SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions                  CHOICE {
            r4                                  SEQUENCE {
                cellUpdateConfirm-r4                CellUpdateConfirm-r4-IEs,
                nonCriticalExtensions               SEQUENCE {}     OPTIONAL
            },
            criticalExtensions                  SEQUENCE {}
        }
    }
}

CellUpdateConfirm-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        new-U-RNTI                      U-RNTI                              OPTIONAL,
        new-C-RNTI                      C-RNTI                              OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
        rlc-Re-establishIndicatorRb2-3or4       BOOLEAN,
        rlc-Re-establishIndicatorRb5orAbove     BOOLEAN,
    -- CN information elements
        cn-InformationInfo              CN-InformationInfo                  OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
        rb-InformationReleaseList       RB-InformationReleaseList           OPTIONAL,
        rb-InformationReconfigList      RB-InformationReconfigList          OPTIONAL,
        rb-InformationAffectedList      RB-InformationAffectedList          OPTIONAL,
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,
```

```
    -- Transport channel IEs
        ul-CommonTransChInfo             UL-CommonTransChInfo              OPTIONAL,
        ul-deletedTransChInfoList        UL-DeletedTransChInfoList         OPTIONAL,
        ul-AddReconfTransChInfoList      UL-AddReconfTransChInfoList       OPTIONAL,
        modeSpecificTransChInfo          CHOICE {
            fdd                              SEQUENCE {
                cpch-SetID                       CPCH-SetID                    OPTIONAL,
                addReconfTransChDRAC-Info        DRAC-StaticInformationList OPTIONAL
            },
            tdd                          NULL
        },
        dl-CommonTransChInfo             DL-CommonTransChInfo              OPTIONAL,
        dl-DeletedTransChInfoList        DL-DeletedTransChInfoList         OPTIONAL,
        dl-AddReconfTransChInfoList      DL-AddReconfTransChInfoList       OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                    FrequencyInfo                    OPTIONAL,
        maxAllowedUL-TX-Power            MaxAllowedUL-TX-Power            OPTIONAL,
        ul-ChannelRequirement            UL-ChannelRequirement            OPTIONAL,
        modeSpecificPhysChInfo           CHOICE {
            fdd                              SEQUENCE {
                dl-PDSCH-Information              DL-PDSCH-Information       OPTIONAL
            },
            tdd                          NULL
        },
        dl-CommonInformation             DL-CommonInformation             OPTIONAL,
        dl-InformationPerRL-List         DL-InformationPerRL-List         OPTIONAL
}

CellUpdateConfirm-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI               DSCH-RNTI                               OPTIONAL
}

CellUpdateConfirm-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                          SSDT-UL-r4                       OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE DL-InformationPerRL-List included in this message
        cell-id-PerRL-List               CellIdentity-PerRL-List          OPTIONAL
}

CellUpdateConfirm-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo      IntegrityProtectionModeInfo      OPTIONAL,
        cipheringModeInfo                CipheringModeInfo                OPTIONAL,
        activationTime                   ActivationTime                   OPTIONAL,
        new-U-RNTI                       U-RNTI                           OPTIONAL,
        new-C-RNTI                       C-RNTI                           OPTIONAL,
        new-DSCH-RNTI                    DSCH-RNTI                        OPTIONAL,
        rrc-StateIndicator               RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff       UTRAN-DRX-CycleLengthCoefficient OPTIONAL,
        rlc-ResetIndicatorC-Plane        BOOLEAN,
        rlc-ResetIndicatorU-Plane        BOOLEAN,
    -- CN information elements
        cn-InformationInfo               CN-InformationInfo               OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                     URA-Identity                     OPTIONAL,
    -- Radio bearer IEs
        rb-InformationReleaseList        RB-InformationReleaseList        OPTIONAL,
        rb-InformationReconfigList       RB-InformationReconfigList-r4       OPTIONAL,
        rb-InformationAffectedList       RB-InformationAffectedList       OPTIONAL,
        dl-CounterSynchronisationInfo    DL-CounterSynchronisationInfo    OPTIONAL, rb-WithPDCP-
InfoList                RB-WithPDCP-InfoList             OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo             UL-CommonTransChInfo-r4          OPTIONAL,
        ul-deletedTransChInfoList        UL-DeletedTransChInfoList         OPTIONAL,
        ul-AddReconfTransChInfoList      UL-AddReconfTransChInfoList       OPTIONAL,
        modeSpecificTransChInfo          CHOICE {
            fdd                              SEQUENCE {
                cpch-SetID                       CPCH-SetID                    OPTIONAL,
                addReconfTransChDRAC-Info        DRAC-StaticInformationList OPTIONAL
            },
            tdd                          NULL
        },
        dl-CommonTransChInfo             DL-CommonTransChInfo-r4          OPTIONAL,
        dl-DeletedTransChInfoList        DL-DeletedTransChInfoList         OPTIONAL,
        dl-AddReconfTransChInfoList      DL-AddReconfTransChInfoList-r4   OPTIONAL,
```

```
     -- Physical channel IEs
        frequencyInfo                    FrequencyInfo                         OPTIONAL,
        maxAllowedUL-TX-Power            MaxAllowedUL-TX-Power                 OPTIONAL,
        ul-ChannelRequirement            UL-ChannelRequirement-r4              OPTIONAL,
        modeSpecificPhysChInfo           CHOICE {
            fdd                              SEQUENCE {
                dl-PDSCH-Information              DL-PDSCH-Information     OPTIONAL
            },
            tdd                          NULL
        },
        dl-CommonInformation             DL-CommonInformation-r4               OPTIONAL,
        dl-InformationPerRL-List         DL-InformationPerRL-List-r4           OPTIONAL
}


-- **************************************************
--
-- CELL UPDATE CONFIRM for CCCH
--
-- **************************************************

CellUpdateConfirm-CCCH ::= CHOICE {
    r3                               SEQUENCE {
        -- User equipment IEs
        u-RNTI                           U-RNTI,
        -- The rest of the message is identical to the one sent on DCCH.
        cellUpdateConfirm-r3             CellUpdateConfirm-r3-IEs,
        v4xyNonCriticalExtensions        SEQUENCE {
            cellUpdateConfirm-v4xyext        CellUpdateConfirm-v4xyext-IEs,
            nonCriticalExtensions            SEQUENCE {} OPTIONAL
        }   OPTIONAL
    },
    later-than-r3                    SEQUENCE {
        u-RNTI                           U-RNTI,
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
        criticalExtensions               CHOICE {
            r4                               SEQUENCE {
                -- The rest of the message is identical to the one sent on DCCH.
                cellUpdateConfirm-r4             CellUpdateConfirm-r4-IEs,
                nonCriticalExtensions            SEQUENCE {}     OPTIONAL
            },
            criticalExtensions               SEQUENCE {}
        }
    }
}


-- **************************************************
--
-- COUNTER CHECK
--
-- **************************************************

CounterCheck ::= CHOICE {
    r3                               SEQUENCE {
        counterCheck-r3                  CounterCheck-r3-IEs,
        nonCriticalExtensions            SEQUENCE {} OPTIONAL
    },
    later-than-r3                    SEQUENCE {
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
        criticalExtensions               SEQUENCE {}
    }
}

CounterCheck-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
    -- Radio bearer IEs
        rb-COUNT-C-MSB-InformationList  RB-COUNT-C-MSB-InformationList
}


-- **************************************************
--
-- COUNTER CHECK RESPONSE
--
-- **************************************************

CounterCheckResponse ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
```

```
    -- Radio bearer IEs
        rb-COUNT-C-InformationList     RB-COUNT-C-InformationList          OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions          SEQUENCE {} OPTIONAL
}

-- **************************************************
--
-- DOWNLINK DIRECT TRANSFER
--
-- **************************************************

DownlinkDirectTransfer ::= CHOICE {
    r3                              SEQUENCE {
        downlinkDirectTransfer-r3      DownlinkDirectTransfer-r3-IEs,
        nonCriticalExtensions          SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier      RRC-TransactionIdentifier,
        criticalExtensions             SEQUENCE {}
    }
}

DownlinkDirectTransfer-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier      RRC-TransactionIdentifier,
    -- Core network IEs
        cn-DomainIdentity              CN-DomainIdentity,
        nas-Message                    NAS-Message
}

-- **************************************************
--
-- HANDOVER TO UTRAN COMMAND
--
-- **************************************************


HandoverToUTRANCommand ::= CHOICE {
    r3                              SEQUENCE {
        handoverToUTRANCommand-r3      HandoverToUTRANCommand-r3-IEs,
        v4xyNonCriticalExtensions      SEQUENCE {
            handoverToUTRANCommand-v4xyext  HandoverToUTRANCommand-v4xyext-IEs,
            nonCriticalExtensions           SEQUENCE {} OPTIONAL
        }   OPTIONAL
    },
    criticalExtensions              CHOICE {
        r4                              SEQUENCE {
            handoverToUTRANCommand-r4      HandoverToUTRANCommand-r4-IEs,
            nonCriticalExtensions          SEQUENCE {}    OPTIONAL
        },
        criticalExtensions             SEQUENCE {}
    }
}

HandoverToUTRANCommand-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        new-U-RNTI                     U-RNTI-Short,
        -- dummy is not used in this version of specification, it should
        -- not be sent and if received it should be ignored.
        dummy                          ActivationTime                   OPTIONAL,
        cipheringAlgorithm             CipheringAlgorithm               OPTIONAL,
    -- Radio bearer IEs
    -- Specification mode information
        specificationMode              CHOICE {
            complete                       SEQUENCE {
                srb-InformationSetupList       SRB-InformationSetupList,
                rab-InformationSetupList       RAB-InformationSetupList          OPTIONAL,
                ul-CommonTransChInfo           UL-CommonTransChInfo,
                ul-AddReconfTransChInfoList    UL-AddReconfTransChInfoList,
                dl-CommonTransChInfo           DL-CommonTransChInfo,
                dl-AddReconfTransChInfoList    DL-AddReconfTransChInfoList,
                ul-DPCH-Info                   UL-DPCH-Info,
                modeSpecificInfo               CHOICE {
                    fdd                            SEQUENCE {
                        dl-PDSCH-Information            DL-PDSCH-Information OPTIONAL,
                        cpch-SetInfo                   CPCH-SetInfo         OPTIONAL
                    },
```

```
                    tdd                         NULL
                },
                dl-CommonInformation        DL-CommonInformation,
                dl-InformationPerRL-List    DL-InformationPerRL-List,
                frequencyInfo               FrequencyInfo
            },
            preconfiguration            SEQUENCE {
-- All IEs that include an FDD/TDD choice are split in two IEs for this message,
-- one for the FDD only elements and one for the TDD only elements, so that one
-- FDD/TDD choice in this level is sufficient.
                preConfigMode               CHOICE {
                    predefinedConfigIdentity    PredefinedConfigIdentity,
                    defaultConfig               SEQUENCE {
                        defaultConfigMode           DefaultConfigMode,
                        defaultConfigIdentity       DefaultConfigIdentity
                    }
                },
                rab-Info                    RAB-Info-Post    OPTIONAL,
                modeSpecificInfo            CHOICE {
                    fdd                         SEQUENCE {
                        ul-DPCH-Info                UL-DPCH-InfoPostFDD,
                        dl-CommonInformationPost    DL-CommonInformationPost,
                        dl-InformationPerRL-List    DL-InformationPerRL-ListPostFDD,
                        frequencyInfo               FrequencyInfoFDD
                    },
                    tdd                         SEQUENCE {
                        ul-DPCH-Info                UL-DPCH-InfoPostTDD,
                        dl-CommonInformationPost    DL-CommonInformationPost,
                        dl-InformationPerRL         DL-InformationPerRL-PostTDD,
                        frequencyInfo               FrequencyInfoTDD,
                        primaryCCPCH-TX-Power       PrimaryCCPCH-TX-Power
                    }
                }
            }
        },
    -- Physical channel IEs
        maxAllowedUL-TX-Power       MaxAllowedUL-TX-Power
}

HandoverToUTRANCommand-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                     SSDT-UL-r4                      OPTIONAL,
        cell-id                     CellIdentity                   OPTIONAL
}

HandoverToUTRANCommand-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        new-U-RNTI                  U-RNTI-Short,
        cipheringAlgorithm          CipheringAlgorithm             OPTIONAL,
    -- Radio bearer IEs
        rab-Info                    RAB-Info-Post,
    -- Specification mode information
        specificationMode           CHOICE {
            complete                    SEQUENCE {
                srb-InformationSetupList    SRB-InformationSetupList,
                rab-InformationSetupList    RAB-InformationSetupList-r4      OPTIONAL,
                ul-CommonTransChInfo        UL-CommonTransChInfo,
                ul-AddReconfTransChInfoList UL-AddReconfTransChInfoList,
                dl-CommonTransChInfo        DL-CommonTransChInfo,
                dl-AddReconfTransChInfoList DL-AddReconfTransChInfoList,
                ul-DPCH-Info                UL-DPCH-Info-r4,
                modeSpecificInfo            CHOICE {
                    fdd                         SEQUENCE {
                        dl-PDSCH-Information         DL-PDSCH-Information OPTIONAL,
                        cpch-SetInfo                CPCH-SetInfo         OPTIONAL
                    },
                    tdd                         NULL
                },
                dl-CommonInformation        DL-CommonInformation-r4,
                dl-InformationPerRL-List    DL-InformationPerRL-List-r4,
                frequencyInfo               FrequencyInfo
            },
            preconfiguration            SEQUENCE {
-- All IEs that include an FDD/TDD choice are split in two IEs for this message,
-- one for the FDD only elements and one for the TDD only elements, so that one
```

```
-- FDD/TDD choice in this level is sufficient.
                predefinedConfigIdentity      PredefinedConfigIdentity,
                rab-Info                      RAB-Info-Post         OPTIONAL,
                modeSpecificInfo              CHOICE {
                    fdd                               SEQUENCE {
                        ul-DPCH-Info                      UL-DPCH-InfoPostFDD,
                        dl-CommonInformationPost          DL-CommonInformationPost,
                        dl-InformationPerRL-List          DL-InformationPerRL-ListPostFDD,
                        frequencyInfo                     FrequencyInfoFDD
                    },
                    tdd                               CHOICE {
                        tdd384                            SEQUENCE {
                            ul-DPCH-Info                      UL-DPCH-InfoPostTDD,
                            dl-InformationPerRL               DL-InformationPerRL-PostTDD,
                            frequencyInfo                     FrequencyInfoTDD,
                            primaryCCPCH-TX-Power             PrimaryCCPCH-TX-Power
                        },
                        tdd128                            SEQUENCE {
                            ul-DPCH-Info                      UL-DPCH-InfoPostTDD-LCR-r4,
                            dl-InformationPerRL               DL-InformationPerRL-PostTDD-LCR-r4,
                            frequencyInfo                     FrequencyInfoTDD,
                            primaryCCPCH-TX-Power             PrimaryCCPCH-TX-Power
                        }
                    }
                }
            }
        },
    -- Physical channel IEs
        maxAllowedUL-TX-Power         MaxAllowedUL-TX-Power
}

-- **************************************************
--
-- HANDOVER TO UTRAN COMPLETE
--
-- **************************************************

HandoverToUTRANComplete ::= SEQUENCE {
    --TABULAR: Integrity protection shall not be performed on this message.
    -- User equipment IEs
    -- TABULAR: startList is conditional on history.
        startList                     STARTList                             OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime        ActivationTime                        OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions         SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- INITIAL DIRECT TRANSFER
--
-- **************************************************

InitialDirectTransfer ::= SEQUENCE {
    -- Core network IEs
        cn-DomainIdentity             CN-DomainIdentity,
        intraDomainNasNodeSelector    IntraDomainNasNodeSelector,
        nas-Message                   NAS-Message,
    -- Measurement IEs
        measuredResultsOnRACH         MeasuredResultsOnRACH                 OPTIONAL,
        v3a0NonCriticalExtensions     SEQUENCE {
        initialDirectTransfer-v3a0ext   InitialDirectTransfer-v3a0ext,
        -- Extension mechanism for non- release99 information
            nonCriticalExtensions         SEQUENCE {}     OPTIONAL
        }       OPTIONAL
}

InitialDirectTransfer-v3a0ext ::= SEQUENCE {
    -- start-value shall always be included in this version of the protocol
    start-Value                       START-Value                           OPTIONAL
}


-- **************************************************
--
-- HANDOVER FROM UTRAN COMMAND
--
```

```
-- **************************************************

HandoverFromUTRANCommand-GSM ::= CHOICE {
    r3                              SEQUENCE {
        handoverFromUTRANCommand-GSM-r3
                                        HandoverFromUTRANCommand-GSM-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

HandoverFromUTRANCommand-GSM-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        activationTime                  ActivationTime                      OPTIONAL,
    -- Radio bearer IEs
        toHandover-Info                 RAB-Info                            OPTIONAL,
    -- Measurement IEs
        frequency-band                  Frequency-Band,
    -- Other IEs
        gsm-message                     CHOICE {
            -- In the single-GSM-Message case, what follows the basic production is a variable
            -- length bit string with no length field, containing the GSM message including GSM
            -- padding up to end of container, to be analysed according to GSM specifications
            single-GSM-Message              SEQUENCE {},
            gsm-MessageList                 SEQUENCE {
                gsm-Messages                    GSM-MessageList
            }
        }
}

HandoverFromUTRANCommand-CDMA2000 ::= CHOICE {
    r3                              SEQUENCE {
        handoverFromUTRANCommand-CDMA2000-r3
                                        HandoverFromUTRANCommand-CDMA2000-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

HandoverFromUTRANCommand-CDMA2000-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        activationTime                  ActivationTime                      OPTIONAL,
    -- Radio bearer IEs
        toHandover-Info                 RAB-Info                            OPTIONAL,
    -- Other IEs
        cdma2000-MessageList            CDMA2000-MessageList
}

-- **************************************************
--
-- HANDOVER FROM UTRAN FAILURE
--
-- **************************************************

HandoverFromUTRANFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- Other IEs
        interRAT-HO-FailureCause        InterRAT-HO-FailureCause            OPTIONAL,
        interRATMessage                 CHOICE {
            gsm                             SEQUENCE {
                gsm-MessageList                 GSM-MessageList
            },
            cdma2000                        SEQUENCE {
                cdma2000-MessageList            CDMA2000-MessageList
            }
        }                   OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}
```

```
-- **************************************************
--
-- INTER RAT HANDOVER INFO
--
-- **************************************************

InterRATHandoverInfo ::= SEQUENCE {
    -- This structure is defined for historical reasons, backward compatibility with 04.18
    predefinedConfigStatusList      CHOICE {
        absent                          NULL,
        present                         PredefinedConfigStatusList
    },
    uE-SecurityInformation          CHOICE {
        absent                          NULL,
        present                         UE-SecurityInformation
    },
    ue-CapabilityContainer          CHOICE {
        absent                          NULL,
        -- present is an octet aligned string containing IE UE-RadioAccessCapabilityInfo
        present                         OCTET STRING (SIZE (0..63))
    },
    -- Non critical extensions
    v390NonCriticalExtensions       CHOICE {
        absent                          NULL,
        present                         SEQUENCE {
            interRATHandoverInfo-v390ext    InterRATHandoverInfo-v390ext-IEs,
            v3a0NonCriticalExtensions       SEQUENCE {
                interRATHandoverInfo-v3a0ext    InterRATHandoverInfo-v3a0ext,
                v4xyNonCriticalExtensions       SEQUENCE {
                    interRATHandoverInfo-v4xyext    InterRATHandoverInfo-v4xyext-IEs,
                    -- Reserved for future non critical extension
                    nonCriticalExtensions           SEQUENCE {} OPTIONAL
                } OPTIONAL
            } OPTIONAL
        }
    }
}

InterRATHandoverInfo-v390ext-IEs ::= SEQUENCE {
    -- User equipment IEs
    ue-RadioAccessCapability-v380ext    UE-RadioAccessCapability-v380ext        OPTIONAL,
    dl-PhysChCapabilityFDD-v380ext      DL-PhysChCapabilityFDD-v380ext
}

InterRATHandoverInfo-v3a0ext ::= SEQUENCE {
    -- User equipment IEs
    ue-RadioAccessCapability-v3a0ext    UE-RadioAccessCapability-v3a0ext        OPTIONAL
}

InterRATHandoverInfo-v4xyext-IEs ::= SEQUENCE {
    -- User equipment IEs
    ue-RadioAccessCapability-v4xyext    UE-RadioAccessCapability-v4xyext
}

-- **************************************************
--
-- MEASUREMENT CONTROL
--
-- **************************************************

MeasurementControl ::= CHOICE {
    r3                              SEQUENCE {
        measurementControl-r3           MeasurementControl-r3-IEs,
        v390nonCriticalExtensions       SEQUENCE {
            measurementControl-v390ext      MeasurementControl-v390ext,
            v3a0NonCriticalExtensions       SEQUENCE {
                measurementControl-v3a0ext      MeasurementControl-v3a0ext,
                v4xyNonCriticalExtensions       SEQUENCE{
                    measurementControl-v4xyext      MeasurementControl-v4xyext-IEs,
                    nonCriticalExtensions           SEQUENCE {}                      OPTIONAL
                }                       OPTIONAL
            }                       OPTIONAL
        }                       OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
```

```
        r4                              SEQUENCE {
            measurementControl-r4           MeasurementControl-r4-IEs,
            nonCriticalExtensions           SEQUENCE {}    OPTIONAL
        },
        criticalExtensions              SEQUENCE {}
    }
  }
}


MeasurementControl-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- Measurement IEs
        measurementIdentity     MeasurementIdentity,
        -- TABULAR: The measurement type is included in MeasurementCommand.
        measurementCommand              MeasurementCommand,
        measurementReportingMode        MeasurementReportingMode            OPTIONAL,
        additionalMeasurementList       AdditionalMeasurementID-List        OPTIONAL,
    -- Physical channel IEs
        dpch-CompressedModeStatusInfo   DPCH-CompressedModeStatusInfo       OPTIONAL
}

MeasurementControl-v4xyext-IEs ::= SEQUENCE {
    ue-Positioning-OTDOA-AssistanceData-r4ext   UE-Positioning-OTDOA-AssistanceData-r4ext   OPTIONAL
}

MeasurementControl-v390ext ::= SEQUENCE {
        ue-Positioning-Measurement-v390ext      UE-Positioning-Measurement-v390ext  OPTIONAL
}

MeasurementControl-v3a0ext ::= SEQUENCE {
    sfn-Offset-Validity             SFN-Offset-Validity     OPTIONAL
}

MeasurementControl-r4-IEs ::= SEQUENCE {
    -- Measurement IEs
        measurementIdentity     MeasurementIdentity,
        -- TABULAR: The measurement type is included in measurementCommand.
        measurementCommand              MeasurementCommand-r4,
        measurementReportingMode        MeasurementReportingMode            OPTIONAL,
        additionalMeasurementList       AdditionalMeasurementID-List        OPTIONAL,
    -- Physical channel IEs
        dpch-CompressedModeStatusInfo   DPCH-CompressedModeStatusInfo       OPTIONAL
}

-- **************************************************
--
-- MEASUREMENT CONTROL FAILURE
--
-- **************************************************

MeasurementControlFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- MEASUREMENT REPORT
--
-- **************************************************

MeasurementReport ::= SEQUENCE {
    -- Measurement IEs
        measurementIdentity     MeasurementIdentity,
        measuredResults                 MeasuredResults                     OPTIONAL,
        measuredResultsOnRACH           MeasuredResultsOnRACH               OPTIONAL,
        additionalMeasuredResults       MeasuredResultsList                 OPTIONAL,
        eventResults                    EventResults                        OPTIONAL,
    -- Non-critical extensions
        v390nonCriticalExtensions           SEQUENCE {
            measurementReport-v390ext       MeasurementReport-v390ext,
            v4xyNonCriticalExtensions       SEQUENCE {
                measurementReport-v4xyext       MeasurementReport-v4xyext-IEs,
                -- Extension mechanism for non-Rel4 information
```

```
                nonCriticalExtensions           SEQUENCE {}                    OPTIONAL
            }                             OPTIONAL
        }                         OPTIONAL
}

MeasurementReport-v390ext ::= SEQUENCE {
        measuredResults-v390ext         MeasuredResults-v390ext         OPTIONAL
}

MeasurementReport-v4xyext-IEs ::= SEQUENCE {
    interFreqEventResults-LCR         InterFreqEventResults-LCR-r4-ext      OPTIONAL,
    additionalMeasuredResults-LCR   MeasuredResultsList-LCR-r4-ext         OPTIONAL
}

 -- **************************************************
--
-- PAGING TYPE 1
--
-- **************************************************

PagingType1 ::= SEQUENCE {
    -- User equipment IEs
        pagingRecordList                PagingRecordList                OPTIONAL,
    -- Other IEs
        bcch-ModificationInfo           BCCH-ModificationInfo           OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- PAGING TYPE 2
--
-- **************************************************

PagingType2 ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        pagingCause                     PagingCause,
    -- Core network IEs
        cn-DomainIdentity               CN-DomainIdentity,
        pagingRecordTypeID              PagingRecordTypeID,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION
--
-- **************************************************

PhysicalChannelReconfiguration ::= CHOICE {
    r3                              SEQUENCE {
        physicalChannelReconfiguration-r3
                                        PhysicalChannelReconfiguration-r3-IEs,
        v3a0NonCriticalExtensions           SEQUENCE {
            physicalChannelReconfiguration-v3a0ext     PhysicalChannelReconfiguration-v3a0ext,
            v4xyNonCriticalExtenstions          SEQUENCE {
                physicalChannelReconfiguration-v4xyext
                                        PhysicalChannelReconfiguration-v4xyext-IEs,
                nonCriticalExtensions               SEQUENCE {} OPTIONAL
            } OPTIONAL
        } OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
        r4                              SEQUENCE {
            physicalChannelReconfiguration-r4
                                        PhysicalChannelReconfiguration-r4-IEs,
            nonCriticalExtensions           SEQUENCE {}    OPTIONAL
        },
        criticalExtensions              SEQUENCE {}
        }
    }
}
```

```
PhysicalChannelReconfiguration-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier     RRC-TransactionIdentifier,
        integrityProtectionModeInfo   IntegrityProtectionModeInfo     OPTIONAL,
        cipheringModeInfo             CipheringModeInfo               OPTIONAL,
        activationTime                ActivationTime                  OPTIONAL,
        new-U-RNTI                    U-RNTI                          OPTIONAL,
        new-C-RNTI                    C-RNTI                          OPTIONAL,
        rrc-StateIndicator            RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff    UTRAN-DRX-CycleLengthCoefficient OPTIONAL,
    -- Core network IEs
        cn-InformationInfo            CN-InformationInfo              OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                  URA-Identity                    OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo DL-CounterSynchronisationInfo   OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                 FrequencyInfo                   OPTIONAL,
        maxAllowedUL-TX-Power         MaxAllowedUL-TX-Power           OPTIONAL,
        -- TABULAR: UL-ChannelRequirementWithCPCH-SetID contains the choice
        -- between UL DPCH info, CPCH SET info and CPCH set ID.
        ul-ChannelRequirement         UL-ChannelRequirementWithCPCH-SetID   OPTIONAL,
        modeSpecificInfo              CHOICE {
            fdd                           SEQUENCE {
                dl-PDSCH-Information           DL-PDSCH-Information       OPTIONAL
            },
            tdd                           NULL
        },
        dl-CommonInformation          DL-CommonInformation            OPTIONAL,
        dl-InformationPerRL-List      DL-InformationPerRL-List        OPTIONAL
}

PhysicalChannelReconfiguration-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI                 DSCH-RNTI                           OPTIONAL
}

PhysicalChannelReconfiguration-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                       SSDT-UL-r4                      OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE DL-InformationPerRL-List included in this message
        cell-id-PerRL-List            CellIdentity-PerRL-List         OPTIONAL
}

PhysicalChannelReconfiguration-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo   IntegrityProtectionModeInfo     OPTIONAL,
        cipheringModeInfo             CipheringModeInfo               OPTIONAL,
        activationTime                ActivationTime                  OPTIONAL,
        new-U-RNTI                    U-RNTI                          OPTIONAL,
        new-C-RNTI                    C-RNTI                          OPTIONAL,
        new-DSCH-RNTI                 DSCH-RNTI                       OPTIONAL,
        rrc-StateIndicator            RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff    UTRAN-DRX-CycleLengthCoefficient OPTIONAL,
    -- Core network IEs
        cn-InformationInfo            CN-InformationInfo              OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                  URA-Identity                    OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo DL-CounterSynchronisationInfo   OPTIONAL,rb-WithPDCP-
InfoList                    RB-WithPDCP-InfoList            OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                 FrequencyInfo                   OPTIONAL,
        maxAllowedUL-TX-Power         MaxAllowedUL-TX-Power           OPTIONAL,
        -- TABULAR: UL-ChannelRequirementWithCPCH-SetID-r4 contains the choice
        -- between UL DPCH info, CPCH SET info and CPCH set ID.
        ul-ChannelRequirement         UL-ChannelRequirementWithCPCH-SetID-r4  OPTIONAL,
        modeSpecificInfo              CHOICE {
            fdd                           SEQUENCE {
                dl-PDSCH-Information           DL-PDSCH-Information       OPTIONAL
            },
            tdd                           NULL
        },
        dl-CommonInformation          DL-CommonInformation-r4         OPTIONAL,
        dl-InformationPerRL-List      DL-InformationPerRL-List-r4     OPTIONAL
}
```

```
-- **************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION COMPLETE
--
-- **************************************************

PhysicalChannelReconfigurationComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo        OPTIONAL,
        -- TABULAR: UL-TimingAdvance is applicable for TDD mode only.
        ul-TimingAdvance                UL-TimingAdvance                   OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime          ActivationTime                     OPTIONAL,
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList          OPTIONAL,
        ul-CounterSynchronisationInfo   UL-CounterSynchronisationInfo      OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION FAILURE
--
-- **************************************************

PhysicalChannelReconfigurationFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier          OPTIONAL,
        failureCause                    FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- PHYSICAL SHARED CHANNEL ALLOCATION (TDD only)
--
-- **************************************************

PhysicalSharedChannelAllocation ::= CHOICE {
    r3                              SEQUENCE {
        physicalSharedChannelAllocation-r3
                                        PhysicalSharedChannelAllocation-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        dsch-RNTI                       DSCH-RNTI                          OPTIONAL,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                physicalSharedChannelAllocation-r4
                                            PhysicalSharedChannelAllocation-r4-IEs,
                nonCriticalExtensions           SEQUENCE {}    OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
    }
}

PhysicalSharedChannelAllocation-r3-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- User equipment IEs
        dsch-RNTI                       DSCH-RNTI                          OPTIONAL,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- Physical channel IEs
        ul-TimingAdvance                UL-TimingAdvanceControl            OPTIONAL,
        pusch-CapacityAllocationInfo    PUSCH-CapacityAllocationInfo       OPTIONAL,
        pdsch-CapacityAllocationInfo    PDSCH-CapacityAllocationInfo       OPTIONAL,
        -- TABULAR: If the above value is not present, the default value "No Confirm"
        -- shall be used as specified in 10.2.25.
        confirmRequest                  ENUMERATED {
                                            confirmPDSCH, confirmPUSCH }   OPTIONAL,
        trafficVolumeReportRequest      INTEGER (0..255)                   OPTIONAL,
        iscpTimeslotList                TimeslotList                       OPTIONAL,
        requestPCCPCHRSCP               BOOLEAN
}
```

```
PhysicalSharedChannelAllocation-r4-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- Physical channel IEs
        ul-TimingAdvance              UL-TimingAdvanceControl-r4       OPTIONAL,
        pusch-CapacityAllocationInfo  PUSCH-CapacityAllocationInfo-r4  OPTIONAL,
        pdsch-CapacityAllocationInfo  PDSCH-CapacityAllocationInfo-r4  OPTIONAL,
        -- TABULAR: If confirmRequest is not present, the default value "No Confirm"
        -- shall be used as specified in 10.2.25.
        confirmRequest                ENUMERATED {
                                          confirmPDSCH, confirmPUSCH }  OPTIONAL,
        iscpTimeslotList              TimeslotList-r4                   OPTIONAL,
        requestPCCPCHRSCP             BOOLEAN
}

-- **************************************************
--
-- PUSCH CAPACITY REQUEST (TDD only)
--
-- **************************************************

PUSCHCapacityRequest ::= SEQUENCE {
    -- User equipment IEs
        dsch-RNTI                     DSCH-RNTI                         OPTIONAL,
    -- Measurement IEs
        trafficVolume                 TrafficVolumeMeasuredResultsList,
        timeslotListWithISCP          TimeslotListWithISCP              OPTIONAL,
        primaryCCPCH-RSCP             PrimaryCCPCH-RSCP                 OPTIONAL,
        allocationConfirmation        CHOICE {
            pdschConfirmation             PDSCH-Identity,
            puschConfirmation             PUSCH-Identity
        }                                                               OPTIONAL,
        protocolErrorIndicator        ProtocolErrorIndicatorWithMoreInfo,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions         SEQUENCE {} OPTIONAL
}

-- **************************************************
--
-- RADIO BEARER RECONFIGURATION
--
-- **************************************************

RadioBearerReconfiguration ::= CHOICE {
    r3                            SEQUENCE {
        radioBearerReconfiguration-r3  RadioBearerReconfiguration-r3-IEs,
        v3a0NonCriticalExtensions      SEQUENCE {
            radioBearerReconfiguration-v3a0ext  RadioBearerReconfiguration-v3a0ext,
            v4xyNonCriticalExtensions           SEQUENCE {
                radioBearerReconfiguration-v4xyext
                                             RadioBearerReconfiguration-v4xyext-IEs,
                nonCriticalExtensions             SEQUENCE {} OPTIONAL
            } OPTIONAL
        } OPTIONAL
    },
    later-than-r3                 SEQUENCE {
        rrc-TransactionIdentifier     RRC-TransactionIdentifier,
        criticalExtensions            CHOICE {
            r4                            SEQUENCE {
                radioBearerReconfiguration-r4  RadioBearerReconfiguration-r4-IEs,
                nonCriticalExtensions          SEQUENCE {}      OPTIONAL
            },
            criticalExtensions            SEQUENCE {}
        }
    }
}

RadioBearerReconfiguration-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier     RRC-TransactionIdentifier,
        integrityProtectionModeInfo   IntegrityProtectionModeInfo      OPTIONAL,
        cipheringModeInfo             CipheringModeInfo                OPTIONAL,
        activationTime                ActivationTime                   OPTIONAL,
        new-U-RNTI                    U-RNTI                           OPTIONAL,
        new-C-RNTI                    C-RNTI                           OPTIONAL,
        rrc-StateIndicator            RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff    UTRAN-DRX-CycleLengthCoefficient OPTIONAL,
    -- Core network IEs
```

```
        cn-InformationInfo              CN-InformationInfo              OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                    OPTIONAL,
    -- Radio bearer IEs
        rab-InformationReconfigList     RAB-InformationReconfigList      OPTIONAL,
        -- NOTE: IE rb-InformationReconfigList should be optional in later versions
        -- of this message
        rb-InformationReconfigList      RB-InformationReconfigList,
        rb-InformationAffectedList      RB-InformationAffectedList       OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo            OPTIONAL,
        ul-deletedTransChInfoList       UL-DeletedTransChInfoList        OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList       OPTIONAL,
        modeSpecificTransChInfo         CHOICE {
            fdd                             SEQUENCE {
                cpch-SetID                      CPCH-SetID                OPTIONAL,
                addReconfTransChDRAC-Info       DRAC-StaticInformationList  OPTIONAL
            },
            tdd                             NULL
        }                                                               OPTIONAL,
        dl-CommonTransChInfo            DL-CommonTransChInfo            OPTIONAL,
        dl-DeletedTransChInfoList       DL-DeletedTransChInfoList        OPTIONAL,
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfo2List      OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                   OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power           OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement           OPTIONAL,
        modeSpecificPhysChInfo          CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information       OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonInformation           DL-CommonInformation            OPTIONAL,
        -- NOTE: IE dl-InformationPerRL-List should be optional in later versions
        -- of this message
        dl-InformationPerRL-List        DL-InformationPerRL-List
}

RadioBearerReconfiguration-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI                   DSCH-RNTI                               OPTIONAL
}

RadioBearerReconfiguration-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                         SSDT-UL-r4                      OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE DL-InformationPerRL-List included in this message
        cell-id-PerRL-List              CellIdentity-PerRL-List         OPTIONAL
}

RadioBearerReconfiguration-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo     IntegrityProtectionModeInfo     OPTIONAL,
        cipheringModeInfo               CipheringModeInfo               OPTIONAL,
        activationTime                  ActivationTime                  OPTIONAL,
        new-U-RNTI                      U-RNTI                          OPTIONAL,
        new-C-RNTI                      C-RNTI                          OPTIONAL,
        new-DSCH-RNTI                   DSCH-RNTI                       OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo              OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                    OPTIONAL,
    -- Radio bearer IEs
        rab-InformationReconfigList     RAB-InformationReconfigList      OPTIONAL,
        rb-InformationReconfigList      RB-InformationReconfigList-r4    OPTIONAL,
        rb-InformationAffectedList      RB-InformationAffectedList       OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo-r4          OPTIONAL,
        ul-deletedTransChInfoList       UL-DeletedTransChInfoList        OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList       OPTIONAL,
        modeSpecificTransChInfo         CHOICE {
            fdd                             SEQUENCE {
                cpch-SetID                      CPCH-SetID                OPTIONAL,
```

```
            addReconfTransChDRAC-Info       DRAC-StaticInformationList  OPTIONAL
        },
        tdd                             NULL
    }                                                                   OPTIONAL,
        dl-CommonTransChInfo            DL-CommonTransChInfo-r4         OPTIONAL,
        dl-DeletedTransChInfoList       DL-DeletedTransChInfoList       OPTIONAL,
        dl-AddReconfTransChInfoList      DL-AddReconfTransChInfo2List    OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                   OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power           OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement-r4        OPTIONAL,
        modeSpecificPhysChInfo          CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information     OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonInformation            DL-CommonInformation-r4         OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List-r4     OPTIONAL
}


-- **************************************************
--
-- RADIO BEARER RECONFIGURATION COMPLETE
--
-- **************************************************

RadioBearerReconfigurationComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo     OPTIONAL,
        -- TABULAR: UL-TimingAdvance is applicable for TDD mode only.
        ul-TimingAdvance                UL-TimingAdvance                OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime          ActivationTime                  OPTIONAL,
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList       OPTIONAL,
        ul-CounterSynchronisationInfo   UL-CounterSynchronisationInfo   OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
}


-- **************************************************
--
-- RADIO BEARER RECONFIGURATION FAILURE
--
-- **************************************************

RadioBearerReconfigurationFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Radio bearer IEs
        potentiallySuccesfulBearerList  RB-IdentityList                 OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
}


-- **************************************************
--
-- RADIO BEARER RELEASE
--
-- **************************************************

RadioBearerRelease ::= CHOICE {
    r3                              SEQUENCE {
        radioBearerRelease-r3           RadioBearerRelease-r3-IEs,
        v3a0NonCriticalExtensions       SEQUENCE {
            radioBearerRelease-v3a0ext      RadioBearerRelease-v3a0ext,
            v4xyNonCriticalExtensions       SEQUENCE {
                radioBearerRelease-v4xyext      RadioBearerRelease-v4xyext-IEs,
                nonCriticalExtensions           SEQUENCE {} OPTIONAL
            } OPTIONAL
        } OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
```

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```
            radioBearerRelease-r4           RadioBearerRelease-r4-IEs,
            nonCriticalExtensions           SEQUENCE {}      OPTIONAL
        },
        criticalExtensions              SEQUENCE {}
    }
}

RadioBearerRelease-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
    rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
    cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
    activationTime                  ActivationTime                      OPTIONAL,
    new-U-RNTI                      U-RNTI                              OPTIONAL,
    new-C-RNTI                      C-RNTI                              OPTIONAL,
    rrc-StateIndicator              RRC-StateIndicator,
    utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
    -- Core network IEs
    cn-InformationInfo              CN-InformationInfo                  OPTIONAL,
    signallingConnectionRelIndication  CN-DomainIdentity                OPTIONAL,
    -- UTRAN mobility IEs
    ura-Identity                    URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
    rab-InformationReconfigList     RAB-InformationReconfigList         OPTIONAL,
    rb-InformationReleaseList       RB-InformationReleaseList,
    rb-InformationAffectedList      RB-InformationAffectedList          OPTIONAL,
    dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,
    -- Transport channel IEs
    ul-CommonTransChInfo            UL-CommonTransChInfo                OPTIONAL,
    ul-deletedTransChInfoList       UL-DeletedTransChInfoList           OPTIONAL,
    ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList         OPTIONAL,
    modeSpecificTransChInfo         CHOICE {
        fdd                             SEQUENCE {
            cpch-SetID                      CPCH-SetID                  OPTIONAL,
            addReconfTransChDRAC-Info       DRAC-StaticInformationList  OPTIONAL
        },
        tdd                             NULL
    }                                                                   OPTIONAL,
    dl-CommonTransChInfo            DL-CommonTransChInfo                OPTIONAL,
    dl-DeletedTransChInfoList       DL-DeletedTransChInfoList           OPTIONAL,
    dl-AddReconfTransChInfoList      DL-AddReconfTransChInfo2List        OPTIONAL,
    -- Physical channel IEs
    frequencyInfo                   FrequencyInfo                       OPTIONAL,
    maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power               OPTIONAL,
    ul-ChannelRequirement           UL-ChannelRequirement               OPTIONAL,
    modeSpecificPhysChInfo          CHOICE {
        fdd                             SEQUENCE {
            dl-PDSCH-Information             DL-PDSCH-Information         OPTIONAL
        },
        tdd                             NULL
    },
    dl-CommonInformation            DL-CommonInformation                OPTIONAL,
    dl-InformationPerRL-List        DL-InformationPerRL-List            OPTIONAL
}

RadioBearerRelease-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI                   DSCH-RNTI                           OPTIONAL
}

RadioBearerRelease-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
    -- IE ssdt-UL extends SSDT-Information, which is included in
    -- DL-CommonInformation. FDD only.
    ssdt-UL                         SSDT-UL-r4                          OPTIONAL,
    -- The order of the RLs in IE cell-id-PerRL-List is the same as
    --  in IE DL-InformationPerRL-List included in this message
    cell-id-PerRL-List              CellIdentity-PerRL-List             OPTIONAL
}

RadioBearerRelease-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
    integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
    cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
    activationTime                  ActivationTime                      OPTIONAL,
    new-U-RNTI                      U-RNTI                              OPTIONAL,
    new-C-RNTI                      C-RNTI                              OPTIONAL,
    new-DSCH-RNTI                   DSCH-RNTI                           OPTIONAL,
```

```
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient  OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo                OPTIONAL,
        signallingConnectionRelIndication  CN-DomainIdentity             OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                      OPTIONAL,
    -- Radio bearer IEs
        rab-InformationReconfigList     RAB-InformationReconfigList       OPTIONAL,
        rb-InformationReleaseList       RB-InformationReleaseList,
        rb-InformationAffectedList      RB-InformationAffectedList        OPTIONAL,
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo     OPTIONAL, rb-WithPDCP-
InfoList         RB-WithPDCP-InfoList                    OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo-r4           OPTIONAL,
        ul-deletedTransChInfoList       UL-DeletedTransChInfoList         OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList       OPTIONAL,
        modeSpecificTransChInfo         CHOICE {
            fdd                             SEQUENCE {
                cpch-SetID                      CPCH-SetID                OPTIONAL,
                addReconfTransChDRAC-Info       DRAC-StaticInformationList OPTIONAL
            },
            tdd                             NULL
        }                                                                 OPTIONAL,
        dl-CommonTransChInfo            DL-CommonTransChInfo-r4           OPTIONAL,
        dl-DeletedTransChInfoList       DL-DeletedTransChInfoList         OPTIONAL,
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfo2List      OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                     OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power             OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement-r4          OPTIONAL,
        modeSpecificPhysChInfo          CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information       OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonInformation            DL-CommonInformation-r4           OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List-r4       OPTIONAL
}

-- **************************************************
--
-- RADIO BEARER RELEASE COMPLETE
--
-- **************************************************

RadioBearerReleaseComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo       OPTIONAL,
        -- TABULAR: UL-TimingAdvance is applicable for TDD mode only.
        ul-TimingAdvance                UL-TimingAdvance                  OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime          ActivationTime                    OPTIONAL,
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList         OPTIONAL,
        ul-CounterSynchronisationInfo   UL-CounterSynchronisationInfo     OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- RADIO BEARER RELEASE FAILURE
--
-- **************************************************

RadioBearerReleaseFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Radio bearer IEs
        potentiallySuccesfulBearerList  RB-IdentityList                   OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

-- **************************************************
```

```
--
-- RADIO BEARER SETUP
--
-- **************************************************

RadioBearerSetup ::= CHOICE {
    r3                                  SEQUENCE {
        radioBearerSetup-r3             RadioBearerSetup-r3-IEs,
        v3a0NonCriticalExtensions       SEQUENCE {
            radioBearerSetup-v3a0ext        RadioBearerSetup-v3a0ext,
            v4xyNonCriticalExtensions       SEQUENCE {
                radioBearerSetup-v4xyext        RadioBearerSetup-v4xyext-IEs,
                nonCriticalExtensions           SEQUENCE {} OPTIONAL
            }   OPTIONAL
        }   OPTIONAL
    },
    later-than-r3                       SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                radioBearerSetup-r4             RadioBearerSetup-r4-IEs,
                nonCriticalExtensions           SEQUENCE {}     OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
    }
}

RadioBearerSetup-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        new-U-RNTI                      U-RNTI                              OPTIONAL,
        new-C-RNTI                      C-RNTI                              OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                        OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo                  OPTIONAL,
    -- Radio bearer IEs
        srb-InformationSetupList        SRB-InformationSetupList            OPTIONAL,
        rab-InformationSetupList        RAB-InformationSetupList            OPTIONAL,
        rb-InformationAffectedList      RB-InformationAffectedList          OPTIONAL,
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo                OPTIONAL,
        ul-deletedTransChInfoList       UL-DeletedTransChInfoList           OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList         OPTIONAL,
        modeSpecificTransChInfo         CHOICE {
            fdd                             SEQUENCE {
                cpch-SetID                      CPCH-SetID                  OPTIONAL,
                addReconfTransChDRAC-Info       DRAC-StaticInformationList  OPTIONAL
            },
            tdd                             NULL
        }                                                                   OPTIONAL,
        dl-CommonTransChInfo            DL-CommonTransChInfo                OPTIONAL,
        dl-DeletedTransChInfoList       DL-DeletedTransChInfoList           OPTIONAL,
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfoList         OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                       OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power               OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement               OPTIONAL,
        modeSpecificPhysChInfo          CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information         OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonInformation            DL-CommonInformation                OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List            OPTIONAL
}

RadioBearerSetup-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI                       DSCH-RNTI                                   OPTIONAL
}
```

```
RadioBearerSetup-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                           SSDT-UL-r4                        OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE DL-InformationPerRL-List included in this message
        cell-id-PerRL-List                CellIdentity-PerRL-List           OPTIONAL
}

RadioBearerSetup-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo    IntegrityProtectionModeInfo       OPTIONAL,
        cipheringModeInfo              CipheringModeInfo                 OPTIONAL,
        activationTime                 ActivationTime                    OPTIONAL,
        new-U-RNTI                     U-RNTI                            OPTIONAL,
        new-C-RNTI                     C-RNTI                            OPTIONAL,
        new-DSCH-RNTI                  DSCH-RNTI                         OPTIONAL,
        rrc-StateIndicator             RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff     UTRAN-DRX-CycleLengthCoefficient  OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                   URA-Identity                      OPTIONAL,
    -- Core network IEs
        cn-InformationInfo             CN-InformationInfo                OPTIONAL,
    -- Radio bearer IEs
        srb-InformationSetupList       SRB-InformationSetupList          OPTIONAL,
        rab-InformationSetupList       RAB-InformationSetupList-r4       OPTIONAL,
        rb-InformationAffectedList     RB-InformationAffectedList        OPTIONAL,
        dl-CounterSynchronisationInfo  DL-CounterSynchronisationInfo     OPTIONAL,~~rb-WithPDCP-~~
~~InfoList        RB-WithPDCP-InfoList              OPTIONAL,~~
    -- Transport channel IEs
        ul-CommonTransChInfo           UL-CommonTransChInfo-r4           OPTIONAL,
        ul-deletedTransChInfoList      UL-DeletedTransChInfoList         OPTIONAL,
        ul-AddReconfTransChInfoList    UL-AddReconfTransChInfoList       OPTIONAL,
        modeSpecificTransChInfo        CHOICE {
            fdd                            SEQUENCE {
                cpch-SetID                     CPCH-SetID                OPTIONAL,
                addReconfTransChDRAC-Info      DRAC-StaticInformationList OPTIONAL
            },
            tdd                            NULL
        }                                                                OPTIONAL,
        dl-CommonTransChInfo           DL-CommonTransChInfo-r4           OPTIONAL,
        dl-DeletedTransChInfoList      DL-DeletedTransChInfoList         OPTIONAL,
        dl-AddReconfTransChInfoList    DL-AddReconfTransChInfoList-r4    OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                  FrequencyInfo                     OPTIONAL,
        maxAllowedUL-TX-Power          MaxAllowedUL-TX-Power             OPTIONAL,
        ul-ChannelRequirement          UL-ChannelRequirement-r4         OPTIONAL,
        modeSpecificPhysChInfo         CHOICE {
            fdd                            SEQUENCE {
                dl-PDSCH-Information            DL-PDSCH-Information       OPTIONAL
            },
            tdd                            NULL
        },
        dl-CommonInformation           DL-CommonInformation-r4           OPTIONAL,
        dl-InformationPerRL-List       DL-InformationPerRL-List-r4       OPTIONAL
}

-- **************************************************
--
-- RADIO BEARER SETUP COMPLETE
--
-- **************************************************

RadioBearerSetupComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier      RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo     IntegrityProtActivationInfo       OPTIONAL,
        -- TABULAR: UL-TimingAdvance is applicable for TDD mode only.
        ul-TimingAdvance               UL-TimingAdvance                  OPTIONAL,
        start-Value             START-Value                              OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime         ActivationTime                    OPTIONAL,
        rb-UL-CiphActivationTimeInfo   RB-ActivationTimeInfoList         OPTIONAL,
        ul-CounterSynchronisationInfo  UL-CounterSynchronisationInfo     OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions          SEQUENCE {}     OPTIONAL
}
```

```
}

-- **************************************************
--
-- RADIO BEARER SETUP FAILURE
--
-- **************************************************

RadioBearerSetupFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Radio bearer IEs
        potentiallySuccesfulBearerList  RB-IdentityList                   OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}   OPTIONAL
}

-- **************************************************
--
-- RRC CONNECTION REJECT
--
-- **************************************************

RRCConnectionReject ::= CHOICE {
    r3                              SEQUENCE {
        rrcConnectionReject-r3          RRCConnectionReject-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        initialUE-Identity              InitialUE-Identity,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

RRCConnectionReject-r3-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- User equipment IEs
        initialUE-Identity              InitialUE-Identity,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        rejectionCause                  RejectionCause,
        waitTime                        WaitTime,
        redirectionInfo                 RedirectionInfo                   OPTIONAL
}

-- **************************************************
--
-- RRC CONNECTION RELEASE
--
-- **************************************************

RRCConnectionRelease ::= CHOICE {
    r3                              SEQUENCE {
        rrcConnectionRelease-r3         RRCConnectionRelease-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                rrcConnectionRelease-r4         RRCConnectionRelease-r4-IEs,
                nonCriticalExtensions           SEQUENCE {}   OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
    }
}

RRCConnectionRelease-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        -- n-308 is conditional on the UE state
        n-308                           N-308                             OPTIONAL,
        releaseCause                    ReleaseCause,
        rplmn-information               Rplmn-Information                 OPTIONAL
}
```

```
RRCConnectionRelease-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        -- n-308 is conditional on the UE state.
        n-308                           N-308                           OPTIONAL,
        releaseCause                    ReleaseCause,
        rplmn-information               Rplmn-Information-r4            OPTIONAL
}

-- ***************************************************
--
-- RRC CONNECTION RELEASE for CCCH
--
-- ***************************************************

RRCConnectionRelease-CCCH ::= CHOICE {
    r3                              SEQUENCE {
        rrcConnectionRelease-CCCH-r3    RRCConnectionRelease-CCCH-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        u-RNTI                          U-RNTI,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                rrcConnectionRelease-CCCH-r4    RRCConnectionRelease-CCCH-r4-IEs,
                nonCriticalExtensions           SEQUENCE {}    OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
    }
}

RRCConnectionRelease-CCCH-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        u-RNTI                          U-RNTI,
    -- The rest of the message is identical to the one sent on DCCH.
        rrcConnectionRelease            RRCConnectionRelease-r3-IEs
}

RRCConnectionRelease-CCCH-r4-IEs ::= SEQUENCE {
    -- The rest of the message is identical to the one sent on DCCH.
        rrcConnectionRelease            RRCConnectionRelease-r4-IEs
}

-- ***************************************************
--
-- RRC CONNECTION RELEASE COMPLETE
--
-- ***************************************************

RRCConnectionReleaseComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        errorIndication                 FailureCauseWithProtErr        OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- ***************************************************
--
-- RRC CONNECTION REQUEST
--
-- ***************************************************

RRCConnectionRequest ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- User equipment IEs
        initialUE-Identity              InitialUE-Identity,
        establishmentCause              EstablishmentCause,
        -- protocollErrorIndictator is MD, but for compactness reasons no default value
        -- has been assigned to it.
        protocolErrorIndicator          ProtocolErrorIndicator,
    -- Measurement IEs
        measuredResultsOnRACH           MeasuredResultsOnRACH          OPTIONAL,
        v4xyNonCriticalExtensions       SEQUENCE {
            rrcConnectionRequest-v4xyext    RRCConnectionRequest-v4xyext-IEs,
            -- Reserved for future non critical extension
            nonCriticalExtensions           SEQUENCE {}    OPTIONAL
```

```
        }   OPTIONAL
}

RRCConnectionRequest-v4xyext-IEs ::=    SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-v4xyext    UE-RadioAccessCapability-v4xyext
}

-- **************************************************
--
-- RRC CONNECTION SETUP
--
-- **************************************************

RRCConnectionSetup ::= CHOICE {
    r3                              SEQUENCE {
        rrcConnectionSetup-r3           RRCConnectionSetup-r3-IEs,
        v4xyNonCriticalExtensions       SEQUENCE {
            rrcConnectionSetup-v4xyext      RRCConnectionSetup-v4xyext-IEs,
        -- Extension mechanism for non- release99 information
            nonCriticalExtensions           SEQUENCE {}                 OPTIONAL
        }   OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        initialUE-Identity              InitialUE-Identity,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                rrcConnectionSetup-r4           RRCConnectionSetup-r4-IEs,
                nonCriticalExtensions           SEQUENCE {}     OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
    }
}

RRCConnectionSetup-r3-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- User equipment IEs
        initialUE-Identity              InitialUE-Identity,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        activationTime                  ActivationTime                          OPTIONAL,
        new-U-RNTI                      U-RNTI,
        new-c-RNTI                      C-RNTI                                  OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient,
        -- TABULAR: If capacityUpdateRequest is not present, the default value
        -- defined in 10.3.3.2 shall be used.
        capabilityUpdateRequirement     CapabilityUpdateRequirement             OPTIONAL,
    -- Radio bearer IEs
        srb-InformationSetupList        SRB-InformationSetupList2,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo                    OPTIONAL,
        -- NOTE: ul-AddReconfTransChInfoList should be optional in later versions of
        -- this message
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList,
        dl-CommonTransChInfo            DL-CommonTransChInfo                    OPTIONAL,
        -- NOTE: dl-AddReconfTransChInfoList should be optional in later versions
        -- of this message
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfoList,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                          OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power                  OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement                  OPTIONAL,
        dl-CommonInformation            DL-CommonInformation                   OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List               OPTIONAL
}

RRCConnectionSetup-v4xyext-IEs ::= SEQUENCE {
        capabilityUpdateRequirement-r4-ext  CapabilityUpdateRequirement-r4-ext  OPTIONAL,
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                         SSDT-UL-r4                              OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE DL-InformationPerRL-List included in this message
        cell-id-PerRL-List              CellIdentity-PerRL-List                OPTIONAL
}
```

```
RRCConnectionSetup-r4-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
        activationTime                  ActivationTime                          OPTIONAL,
        new-U-RNTI                      U-RNTI,
        new-c-RNTI                      C-RNTI                                  OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient,
        -- TABULAR: If capabilityUpdateRequirements is not present, the default value
        -- defined in 10.3.3.2 shall be used.
        capabilityUpdateRequirement     CapabilityUpdateRequirement-r4          OPTIONAL,
    -- Radio bearer IEs
        srb-InformationSetupList        SRB-InformationSetupList2,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo                    OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList             OPTIONAL,
        dl-CommonTransChInfo            DL-CommonTransChInfo-r4                 OPTIONAL,
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfoList             OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                          OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power                  OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement-r4               OPTIONAL,
        dl-CommonInformation            DL-CommonInformation-r4                OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List-r4            OPTIONAL
}

-- **************************************************
--
-- RRC CONNECTION SETUP COMPLETE
--
-- **************************************************

RRCConnectionSetupComplete ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        startList                       STARTList,
        ue-RadioAccessCapability        UE-RadioAccessCapability                OPTIONAL,
    -- Other IEs
        ue-RATSpecificCapability        InterRAT-UE-RadioAccessCapabilityList   OPTIONAL,
    -- Non critical extensions
        v370NonCriticalExtensions           SEQUENCE {
            rrcConnectionSetupComplete-v370ext RRCConnectionSetupComplete-v370ext,
            v380NonCriticalExtensions           SEQUENCE {
                rrcConnectionSetupComplete-v380ext  RRCConnectionSetupComplete-v380ext-IEs,
                -- Reserved for future non critical extension
                v3a0NonCriticalExtensions           SEQUENCE {
                    rrcConnectionSetupComplete-v3a0ext RRCConnectionSetupComplete-v3a0ext,
                    v4xyNonCriticalExtensions           SEQUENCE {
                        rrcConnectionSetupComplete-v4xyext RRCConnectionSetupComplete-v4xyext-IEs,
                        nonCriticalExtensions               SEQUENCE {}     OPTIONAL
                    }       OPTIONAL
                }       OPTIONAL
            }       OPTIONAL
        }       OPTIONAL
}

RRCConnectionSetupComplete-v370ext ::= SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-v370ext    UE-RadioAccessCapability-v370ext    OPTIONAL
}

RRCConnectionSetupComplete-v380ext-IEs ::= SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-v380ext    UE-RadioAccessCapability-v380ext        OPTIONAL,
        dl-PhysChCapabilityFDD-v380ext      DL-PhysChCapabilityFDD-v380ext
}

RRCConnectionSetupComplete-v3a0ext ::= SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-v3a0ext    UE-RadioAccessCapability-v3a0ext    OPTIONAL
}

RRCConnectionSetupComplete-v4xyext-IEs ::= SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-r4-ext     UE-RadioAccessCapability-r4-ext     OPTIONAL
}
```

```
-- **************************************************
--
-- RRC FAILURE INFO
--
-- **************************************************

RRC-FailureInfo ::= CHOICE {
    r3                                      SEQUENCE {
        rRC-FailureInfo-r3                      RRC-FailureInfo-r3-IEs,
        nonCriticalExtensions                   SEQUENCE {} OPTIONAL
    },
    criticalExtensions                      SEQUENCE {}
}

RRC-FailureInfo-r3-IEs ::=     SEQUENCE {
    -- Non-RRC IEs
        failureCauseWithProtErr                     FailureCauseWithProtErr
}

-- **************************************************
--
-- RRC STATUS
--
-- **************************************************

RRCStatus ::= SEQUENCE {
    -- Other IEs
        -- TABULAR: Identification of received message is nested in
        -- ProtocolErrorMoreInformation
        protocolErrorInformation       ProtocolErrorMoreInformation,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions          SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- SECURITY MODE COMMAND
--
-- **************************************************

SecurityModeCommand ::= CHOICE {
    r3                          SEQUENCE {
        securityModeCommand-r3          SecurityModeCommand-r3-IEs,
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
    },
    later-than-r3               SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

SecurityModeCommand-r3-IEs ::= SEQUENCE {
-- TABULAR: Integrity protection shall always be performed on this message.
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        securityCapability              SecurityCapability,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
    -- Core network IEs
        cn-DomainIdentity               CN-DomainIdentity,
    -- Other IEs
        ue-SystemSpecificSecurityCap    InterRAT-UE-SecurityCapList         OPTIONAL
}

-- **************************************************
--
-- SECURITY MODE COMPLETE
--
-- **************************************************

SecurityModeComplete ::= SEQUENCE {
-- TABULAR: Integrity protection shall always be performed on this message.

    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo         OPTIONAL,
    -- Radio bearer IEs
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList           OPTIONAL,
```

```
        -- Extension mechanism for non- release99 information
            nonCriticalExtensions          SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- SECURITY MODE FAILURE
--
-- **************************************************

SecurityModeFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier      RRC-TransactionIdentifier,
        failureCause                   FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions          SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- SIGNALLING CONNECTION RELEASE
--
-- **************************************************

SignallingConnectionRelease ::= CHOICE {
    r3                              SEQUENCE {
        signallingConnectionRelease-r3  SignallingConnectionRelease-r3-IEs,
        nonCriticalExtensions          SEQUENCE {}    OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier      RRC-TransactionIdentifier,
        criticalExtensions             SEQUENCE {}
    }
}

SignallingConnectionRelease-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier      RRC-TransactionIdentifier,
    -- Core network IEs
        cn-DomainIdentity              CN-DomainIdentity
}

-- **************************************************
--
-- SIGNALLING CONNECTION RELEASE INDICATION
--
-- **************************************************

SignallingConnectionReleaseIndication ::= SEQUENCE {
    -- Core network IEs
        cn-DomainIdentity              CN-DomainIdentity,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions          SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- SYSTEM INFORMATION for BCH
--
-- **************************************************

SystemInformation-BCH ::= SEQUENCE {
    -- Other information elements
        sfn-Prime                      SFN-Prime,
        payload                        CHOICE {
            noSegment                      NULL,
            firstSegment                   FirstSegment,
            subsequentSegment              SubsequentSegment,
            lastSegmentShort                   LastSegmentShort,
            lastAndFirst                   SEQUENCE {
                lastSegmentShort               LastSegmentShort,
                firstSegment                   FirstSegmentShort
            },
            lastAndComplete                SEQUENCE {
                lastSegmentShort               LastSegmentShort,
                completeSIB-List               CompleteSIB-List
            },
            lastAndCompleteAndFirst        SEQUENCE {
```

```
                lastSegmentShort                    LastSegmentShort,
                completeSIB-List                    CompleteSIB-List,
                firstSegment                        FirstSegmentShort
            },
            completeSIB-List                    CompleteSIB-List,
            completeAndFirst                    SEQUENCE {
                completeSIB-List                    CompleteSIB-List,
                firstSegment                        FirstSegmentShort
            },
            completeSIB                         CompleteSIB,
            lastSegment                         LastSegment,
            spare5                              NULL,
            spare4                              NULL,
            spare3                              NULL,
            spare2                              NULL,
            spare1                              NULL
        }
}

-- **************************************************
--
-- SYSTEM INFORMATION for FACH
--
-- **************************************************

SystemInformation-FACH ::= SEQUENCE {
    -- Other information elements
        payload                         CHOICE {
            noSegment                           NULL,
            firstSegment                        FirstSegment,
            subsequentSegment                   SubsequentSegment,
            lastSegmentShort                    LastSegmentShort,
            lastAndFirst                        SEQUENCE {
                lastSegmentShort                    LastSegmentShort,
                firstSegment                        FirstSegmentShort
            },
            lastAndComplete                     SEQUENCE {
                lastSegmentShort                    LastSegmentShort,
                completeSIB-List                    CompleteSIB-List
            },
            lastAndCompleteAndFirst             SEQUENCE {
                lastSegmentShort                    LastSegmentShort,
                completeSIB-List                    CompleteSIB-List,
                firstSegment                        FirstSegmentShort
            },
            completeSIB-List                    CompleteSIB-List,
            completeAndFirst                    SEQUENCE {
                completeSIB-List                    CompleteSIB-List,
                firstSegment                        FirstSegmentShort
            },
            completeSIB                         CompleteSIB,
            lastSegment                         LastSegment,
            spare5                              NULL,
            spare4                              NULL,
            spare3                              NULL,
            spare2                              NULL,
            spare1                              NULL
        }
}

-- **************************************************
--
-- First segment
--
-- **************************************************

FirstSegment ::=                    SEQUENCE {
    -- Other information elements
        sib-Type                        SIB-Type,
        seg-Count                       SegCount,
        sib-Data-fixed                  SIB-Data-fixed
}

-- **************************************************
--
-- First segment (short)
--
-- **************************************************
```

```
FirstSegmentShort ::=              SEQUENCE {
    -- Other information elements
        sib-Type                         SIB-Type,
        seg-Count                        SegCount,
        sib-Data-variable                SIB-Data-variable
}

-- **************************************************
--
-- Subsequent segment
--
-- **************************************************

SubsequentSegment ::=             SEQUENCE {
    -- Other information elements
        sib-Type                         SIB-Type,
        segmentIndex                     SegmentIndex,
        sib-Data-fixed                   SIB-Data-fixed
}

-- **************************************************
--
-- Last segment
--
-- **************************************************

LastSegment ::=                   SEQUENCE {
    -- Other information elements
        sib-Type                         SIB-Type,
        segmentIndex                     SegmentIndex,
        -- For sib-Data-fixed, in case the SIB data is less than 222 bits, padding
        -- shall be used. The same padding bits shall be used as defined in clause 12.1
        sib-Data-fixed                   SIB-Data-fixed
}

LastSegmentShort ::=                SEQUENCE {
    -- Other information elements
        sib-Type                         SIB-Type,
        segmentIndex                     SegmentIndex,
        sib-Data-variable                SIB-Data-variable
}

-- **************************************************
--
-- Complete SIB
--
-- **************************************************

CompleteSIB-List ::=              SEQUENCE (SIZE (1..maxSIBperMsg)) OF
                                      CompleteSIBshort

CompleteSIB ::=                   SEQUENCE {
    -- Other information elements
        sib-Type                         SIB-Type,
        -- For sib-Data-fixed, in case the SIB data is less than 226 bits, padding
        -- shall be used. The same padding bits shall be used as defined in clause 12.1
        sib-Data-fixed                   BIT STRING (SIZE (226))
}

CompleteSIBshort ::=                SEQUENCE {
    -- Other information elements
        sib-Type                         SIB-Type,
        sib-Data-variable                SIB-Data-variable
}

-- **************************************************
--
-- SYSTEM INFORMATION CHANGE INDICATION
--
-- **************************************************

SystemInformationChangeIndication ::=   SEQUENCE {
    -- Other IEs
        bcch-ModificationInfo            BCCH-ModificationInfo,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions            SEQUENCE {}    OPTIONAL
}
```

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```
-- **************************************************
--
-- TRANSPORT CHANNEL RECONFIGURATION
--
-- **************************************************

TransportChannelReconfiguration ::= CHOICE {
    r3                              SEQUENCE {
        transportChannelReconfiguration-r3
                                        TransportChannelReconfiguration-r3-IEs,
        v3a0NonCriticalExtensions       SEQUENCE {
            transportChannelReconfiguration-v3a0ext
                                        TransportChannelReconfiguration-v3a0ext,
            v4xyNonCriticalExtensions       SEQUENCE {
                transportChannelReconfiguration-v4xyext
                                        TransportChannelReconfiguration-v4xyext-IEs,
                nonCriticalExtensions           SEQUENCE {} OPTIONAL
            }           OPTIONAL
        }           OPTIONAL
    },
    later-than-r3               SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                transportChannelReconfiguration-r4
                                        TransportChannelReconfiguration-r4-IEs,
                nonCriticalExtensions           SEQUENCE {}     OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
    }
}

TransportChannelReconfiguration-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        new-U-RNTI                      U-RNTI                              OPTIONAL,
        new-C-RNTI                      C-RNTI                              OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo                  OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo                OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList         OPTIONAL,
        modeSpecificTransChInfo         CHOICE {
            fdd                             SEQUENCE {
                cpch-SetID                      CPCH-SetID                  OPTIONAL,
                addReconfTransChDRAC-Info       DRAC-StaticInformationList  OPTIONAL
            },
            tdd                             NULL
        }                                                                   OPTIONAL,
        dl-CommonTransChInfo            DL-CommonTransChInfo                OPTIONAL,
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfoList         OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                       OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power               OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement               OPTIONAL,
        modeSpecificPhysChInfo          CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information         OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonInformation            DL-CommonInformation                OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List            OPTIONAL
}

TransportChannelReconfiguration-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI                   DSCH-RNTI                               OPTIONAL
```

```
}

TransportChannelReconfiguration-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                         SSDT-UL-r4                      OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE DL-InformationPerRL-List included in this message
        cell-id-PerRL-List              CellIdentity-PerRL-List         OPTIONAL
}

TransportChannelReconfiguration-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo     IntegrityProtectionModeInfo     OPTIONAL,
        cipheringModeInfo               CipheringModeInfo               OPTIONAL,
        activationTime                  ActivationTime                  OPTIONAL,
        new-U-RNTI                      U-RNTI                          OPTIONAL,
        new-C-RNTI                      C-RNTI                          OPTIONAL,
        new-DSCH-RNTI                   DSCH-RNTI                       OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo              OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                    OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo   OPTIONAL,rb-WithPDCP-
InfoList         RB-WithPDCP-InfoList            OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo-r4         OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList     OPTIONAL,
        modeSpecificTransChInfo         CHOICE {
            fdd                             SEQUENCE {
                cpch-SetID                      CPCH-SetID              OPTIONAL,
                addReconfTransChDRAC-Info       DRAC-StaticInformationList OPTIONAL
            },
            tdd                             NULL
        }                                                               OPTIONAL,
        dl-CommonTransChInfo            DL-CommonTransChInfo-r4         OPTIONAL,
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfoList-r4  OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                  FrequencyInfo                   OPTIONAL,
        maxAllowedUL-TX-Power          MaxAllowedUL-TX-Power           OPTIONAL,
        ul-ChannelRequirement          UL-ChannelRequirement-r4        OPTIONAL,
        modeSpecificPhysChInfo         CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information    OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonInformation           DL-CommonInformation-r4         OPTIONAL,
        dl-InformationPerRL-List       DL-InformationPerRL-List-r4     OPTIONAL
}

-- **************************************************
--
-- TRANSPORT CHANNEL RECONFIGURATION COMPLETE
--
-- **************************************************

TransportChannelReconfigurationComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo     OPTIONAL,
        -- TABULAR: UL-TimingAdvance is applicable for TDD mode only.
        ul-TimingAdvance                UL-TimingAdvance                OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime          ActivationTime                  OPTIONAL,
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList       OPTIONAL,
        ul-CounterSynchronisationInfo   UL-CounterSynchronisationInfo   OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- TRANSPORT CHANNEL RECONFIGURATION FAILURE
```

```
--
-- ********************************************************

TransportChannelReconfigurationFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- ********************************************************
--
-- TRANSPORT FORMAT COMBINATION CONTROL in AM or UM RLC mode
--
-- ********************************************************

TransportFormatCombinationControl ::= SEQUENCE {
        -- rrc-TransactionIdentifier is always included in this message
        rrc-TransactionIdentifier       RRC-TransactionIdentifier           OPTIONAL,
        modeSpecificInfo                CHOICE {
            fdd                             NULL,
            tdd                             SEQUENCE {
                tfcs-ID                         TFCS-Identity   OPTIONAL
            }
        },
        dpch-TFCS-InUplink              TFC-Subset,
        activationTimeForTFCSubset      ActivationTime                      OPTIONAL,
        tfc-ControlDuration             TFC-ControlDuration                 OPTIONAL,
        -- Extension mechanism for non- release99 information
            nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- ********************************************************
--
-- TRANSPORT FORMAT COMBINATION CONTROL FAILURE
--
-- ********************************************************

TransportFormatCombinationControlFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- ********************************************************
--
-- UE CAPABILITY ENQUIRY
--
-- ********************************************************

UECapabilityEnquiry ::= CHOICE {
    r3                              SEQUENCE {
        ueCapabilityEnquiry-r3          UECapabilityEnquiry-r3-IEs,
        v4xyNonCriticalExtensions       SEQUENCE {
            ueCapabilityEnquiry-v4xyext     UECapabilityEnquiry-v4xyext-IEs,
            nonCriticalExtensions           SEQUENCE {}                     OPTIONAL
        }       OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

UECapabilityEnquiry-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        capabilityUpdateRequirement     CapabilityUpdateRequirement
}

UECapabilityEnquiry-v4xyext-IEs ::= SEQUENCE {
        capabilityUpdateRequirement-r4-ext  CapabilityUpdateRequirement-r4-ext
}

-- ********************************************************
```

```
--
-- UE CAPABILITY INFORMATION
--
-- **************************************************

UECapabilityInformation ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier        RRC-TransactionIdentifier          OPTIONAL,
        ue-RadioAccessCapability         UE-RadioAccessCapability           OPTIONAL,
    -- Other IEs
        ue-RATSpecificCapability         InterRAT-UE-RadioAccessCapabilityList
    OPTIONAL,
        v370NonCriticalExtensions            SEQUENCE {
            ueCapabilityInformation-v370ext UECapabilityInformation-v370ext,
            v380NonCriticalExtensions            SEQUENCE {
                ueCapabilityInformation-v380ext    UECapabilityInformation-v380ext-IEs,
                v3a0NonCriticalExtensions            SEQUENCE {
                    ueCapabilityInformation-v3a0ext    UECapabilityInformation-v3a0ext,
                    -- Reserved for future non critical extension
                    v4xyNonCriticalExtensions            SEQUENCE {
                        ueCapabilityInformation-v4xyext    UECapabilityInformation-v4xyext,
                        nonCriticalExtensions                SEQUENCE {}    OPTIONAL
                    }        OPTIONAL
                }        OPTIONAL
            }        OPTIONAL
        }        OPTIONAL
}

UECapabilityInformation-v370ext::= SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-v370ext        UE-RadioAccessCapability-v370ext        OPTIONAL
}

UECapabilityInformation-v380ext-IEs ::= SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-v380ext        UE-RadioAccessCapability-v380ext
    OPTIONAL,
        dl-PhysChCapabilityFDD-v380ext          DL-PhysChCapabilityFDD-v380ext
}

UECapabilityInformation-v3a0ext::= SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-v3a0ext        UE-RadioAccessCapability-v3a0ext        OPTIONAL
}

UECapabilityInformation-v4xyext ::= SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-r4-ext        UE-RadioAccessCapability-r4-ext    OPTIONAL,
        ue-RadioAccessCapability-v4xyext        UE-RadioAccessCapability-v4xyext
}

-- **************************************************
--
-- UE CAPABILITY INFORMATION CONFIRM
--
-- **************************************************

UECapabilityInformationConfirm ::= CHOICE {
    r3                          SEQUENCE {
        ueCapabilityInformationConfirm-r3
                                    UECapabilityInformationConfirm-r3-IEs,
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
    },
    later-than-r3               SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

UECapabilityInformationConfirm-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier
}

-- **************************************************
--
-- UPLINK DIRECT TRANSFER
--
```

```
-- **************************************************

UplinkDirectTransfer ::= SEQUENCE {
    -- Core network IEs
        cn-DomainIdentity               CN-DomainIdentity,
        nas-Message                     NAS-Message,
    -- Measurement IEs
        measuredResultsOnRACH           MeasuredResultsOnRACH               OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- UPLINK PHYSICAL CHANNEL CONTROL
--
-- **************************************************

UplinkPhysicalChannelControl ::= CHOICE {
    r3                                  SEQUENCE {
        uplinkPhysicalChannelControl-r3 UplinkPhysicalChannelControl-r3-IEs,
        v4xyNonCriticalExtensions       SEQUENCE {
            uplinkPysicalChannelControl-v4xyext    UplinkPhysicalChannelControl-v4xyext-IEs,
            -- Extension mechanism for non- release4 information
            noncriticalExtensions           SEQUENCE {}                         OPTIONAL
        }   OPTIONAL
    },
    later-than-r3                       SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                uplinkPhysicalChannelControl-r4 UplinkPhysicalChannelControl-r4-IEs,
                nonCriticalExtensions           SEQUENCE {} OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
    }
}

UplinkPhysicalChannelControl-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- Physical channel IEs
        ccTrCH-PowerControlInfo         CCTrCH-PowerControlInfo             OPTIONAL,
        timingAdvance                   UL-TimingAdvanceControl             OPTIONAL,
        alpha                           Alpha                              OPTIONAL,
        specialBurstScheduling          SpecialBurstScheduling             OPTIONAL,
        prach-ConstantValue             ConstantValueTdd                   OPTIONAL,
        pusch-ConstantValue             ConstantValueTdd                   OPTIONAL
}

UplinkPhysicalChannelControl-v4xyext-IEs ::= SEQUENCE {
    -- In case of TDD, openLoopPowerControl-IPDL-TDD is included instead of IE
    -- up-IPDL-Parameters in up-OTDOA-AssistanceData
    openLoopPowerControl-IPDL-TDD   OpenLoopPowerControl-IPDL-TDD-r4     OPTIONAL
}

UplinkPhysicalChannelControl-r4-IEs ::= SEQUENCE {
    -- Physical channel IEs
        ccTrCH-PowerControlInfo         CCTrCH-PowerControlInfo-r4          OPTIONAL,
        tddOption                       CHOICE {
            tdd384                          SEQUENCE {
                timingAdvance                   UL-TimingAdvanceControl-r4  OPTIONAL,
                alpha                           Alpha                       OPTIONAL,
                prach-ConstantValue             ConstantValueTdd            OPTIONAL,
                pusch-ConstantValue             ConstantValueTdd            OPTIONAL,
                openLoopPowerControl-IPDL-TDD   OpenLoopPowerControl-IPDL-TDD-r4    OPTIONAL
            },
            tdd128                          SEQUENCE {
                ul-SynchronisationParameters    UL-SynchronisationParameters-r4 OPTIONAL
            }
        }
}

-- **************************************************
--
-- URA UPDATE
--
```

```
-- ************************************************

URAUpdate ::= SEQUENCE {
    -- User equipment IEs
        u-RNTI                          U-RNTI,
        ura-UpdateCause                 URA-UpdateCause,
        protocolErrorIndicator          ProtocolErrorIndicatorWithMoreInfo,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- ************************************************
--
-- URA UPDATE CONFIRM
--
-- ************************************************

URAUpdateConfirm ::= CHOICE {
    r3                              SEQUENCE {
        uraUpdateConfirm-r3             URAUpdateConfirm-r3-IEs,
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

URAUpdateConfirm-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        new-U-RNTI                      U-RNTI                              OPTIONAL,
        new-C-RNTI                      C-RNTI                              OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
    -- CN information elements
        cn-InformationInfo              CN-InformationInfo                  OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL
}

-- ************************************************
--
-- URA UPDATE CONFIRM for CCCH
--
-- ************************************************

URAUpdateConfirm-CCCH ::= CHOICE {
    r3                              SEQUENCE {
        uraUpdateConfirm-CCCH-r3        URAUpdateConfirm-CCCH-r3-IEs,
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        u-RNTI                          U-RNTI,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

URAUpdateConfirm-CCCH-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        u-RNTI                          U-RNTI,
    -- The rest of the message is identical to the one sent on DCCH.
        uraUpdateConfirm                URAUpdateConfirm-r3-IEs
}

-- ************************************************
--
-- UTRAN MOBILITY INFORMATION
--
-- ************************************************

UTRANMobilityInformation ::= CHOICE {
    r3                              SEQUENCE {
```

```
            utranMobilityInformation-r3    UTRANMobilityInformation-r3-IEs,
            v3a0NonCriticalExtensions         SEQUENCE {
                utranMobilityInformation-v3a0ext    UTRANMobilityInformation-v3a0ext-IEs,
                nonCriticalExtensions               SEQUENCE {} OPTIONAL
            }       OPTIONAL
        },
        later-than-r3                   SEQUENCE {
            rrc-TransactionIdentifier       RRC-TransactionIdentifier,
            criticalExtensions              SEQUENCE {}
        }
    }
}

UTRANMobilityInformation-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        new-U-RNTI                      U-RNTI                              OPTIONAL,
        new-C-RNTI                      C-RNTI                              OPTIONAL,
        ue-ConnTimersAndConstants       UE-ConnTimersAndConstants           OPTIONAL,
    -- CN information elements
        cn-InformationInfo              CN-InformationInfoFull              OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

UTRANMobilityInformation-v3a0ext-IEs ::= SEQUENCE {
    ue-ConnTimersAndConstants-v3a0ext       UE-ConnTimersAndConstants-v3a0ext
}

-- **************************************************
--
-- UTRAN MOBILITY INFORMATION CONFIRM
--
-- **************************************************

UTRANMobilityInformationConfirm ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo         OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime          ActivationTime                      OPTIONAL,
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList           OPTIONAL,
        ul-CounterSynchronisationInfo   UL-CounterSynchronisationInfo       OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- UTRAN MOBILITY INFORMATION FAILURE
--
-- **************************************************

UTRANMobilityInformationFailure ::= SEQUENCE {
    -- UE information elements
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

END
```

CR-Form-v5

CHANGE REQUEST

| ⌘ | **25.331** CR **1477** | ⌘**rev** | **-** | ⌘ | Current version: | **5.0.0** | ⌘ |

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

Proposed change affects: ⌘   (U)SIM ☐   ME/UE **X**   Radio Access Network **X**   Core Network ☐

Title:	⌘	Corrections in ASN.1 related to SRNS relocation
Source:	⌘	TSG-RAN WG2
Work item code: ⌘	TEI4	***Date:*** ⌘ 10 May 2002
Category: ⌘	**A**	***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)

Reason for change:	⌘	"Downlink counter synchronisation info" IE is used to inform UE about SRNS relocation. This is clearly specified in Chapter 8. In Rel-4 and Rel-5 ASN.1 "DL-CounterSynchronisationInfo" has been erroneously replaced by "RB-WithPDCP-InfoList" in several RRC messages that are used in SRNS relocation.
Summary of change: ⌘		"RB-WithPDCP-InfoList" is changed back to "DL-CounterSynchronisationInfo" in Rel-4 and Rel-5. "DL-CounterSynchronisationInfo" contains "RB-WithPDCP-InfoList" hence no functionality is lost in this change. This correction makes Rel-4 and Rel-5 consistent with Rel'99.
Consequences if not approved:	⌘	Potential failure of SRNS relocation in Rel-4 and Rel-5.

Clauses affected:	⌘	11.2		
Other specs affected:	⌘ ☐	Other core specifications	⌘	25.331 v4.4.0, CR 1476
	☐	Test specifications		
	☐	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/3G_Specs/CRs.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.

11.2　PDU definitions

```
--*************************************************************
--
-- TABULAR: The message type and integrity check info are not
-- visible in this module as they are defined in the class module.
-- Also, all FDD/TDD specific choices have the FDD option first
-- and TDD second, just for consistency.
--
--*************************************************************

PDU-definitions DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

IMPORTS

-- Core Network IEs :
    CN-DomainIdentity,
    CN-InformationInfo,
    CN-InformationInfoFull,
    NAS-Message,
    PagingRecordTypeID,
-- UTRAN Mobility IEs :
    CellIdentity,
    CellIdentity-PerRL-List,
    URA-Identity,
-- User Equipment IEs :
    ActivationTime,
    C-RNTI,
    CapabilityUpdateRequirement,
    CapabilityUpdateRequirement-r4,
    CapabilityUpdateRequirement-r4-ext,
    CellUpdateCause,
    CipheringAlgorithm,
    CipheringModeInfo,
    DSCH-RNTI,
    EstablishmentCause,
    FailureCauseWithProtErr,
    FailureCauseWithProtErrTrId,
    H-RNTI,
    InitialUE-Identity,
    IntegrityProtActivationInfo,
    IntegrityProtectionModeInfo,
    N-308,
    PagingCause,
    PagingRecordList,
    ProtocolErrorIndicator,
    ProtocolErrorIndicatorWithMoreInfo,
    Rb-timer-indicator,
    RedirectionInfo,
    RejectionCause,
    ReleaseCause,
    RRC-StateIndicator,
    RRC-TransactionIdentifier,
    SecurityCapability,
    START-Value,
    STARTList,
    U-RNTI,
    U-RNTI-Short,
    UE-RadioAccessCapability,
    UE-RadioAccessCapability-r4-ext,
    UE-RadioAccessCapability-r5-ext,
    UE-RadioAccessCapability-v370ext,
    UE-RadioAccessCapability-v380ext,
    UE-RadioAccessCapability-v3a0ext,
    UE-RadioAccessCapability-v4xyext,
    DL-PhysChCapabilityFDD-v380ext,
    UE-ConnTimersAndConstants,
    UE-ConnTimersAndConstants-v3a0ext,
```

```
        UE-SecurityInformation,
        URA-UpdateCause,
        UTRAN-DRX-CycleLengthCoefficient,
        WaitTime,
    -- Radio Bearer IEs :
        DefaultConfigIdentity,
        DefaultConfigMode,
        DL-CounterSynchronisationInfo,
        PredefinedConfigIdentity,
        PredefinedConfigStatusList,
        RAB-Info,
        RAB-Info-Post,
        RAB-InformationList,
        RAB-InformationReconfigList,
        RAB-InformationSetupList,
        RAB-InformationSetupList-r4,
        RB-ActivationTimeInfoList,
        RB-COUNT-C-InformationList,
        RB-COUNT-C-MSB-InformationList,
        RB-IdentityList,
        RB-InformationAffectedList,
        RB-InformationAffectedList-r5,
        RB-InformationReconfigList,
        RB-InformationReconfigList-r4,
        RB-InformationReconfigList-r5,
        RB-InformationReleaseList,
        RB-WithPDCP-InfoList,   SRB-InformationSetupList,
        SRB-InformationSetupList2,
        UL-CounterSynchronisationInfo,
    -- Transport Channel IEs:
        CPCH-SetID,
        DL-AddReconfTransChInfo2List,
        DL-AddReconfTransChInfoList,
        DL-AddReconfTransChInfoList-r4,
        DL-AddReconfTransChInfoList-r5,
        DL-CommonTransChInfo,
        DL-CommonTransChInfo-r4,
        DL-DeletedTransChInfoList,
        DL-DeletedTransChInfoList-r5,
        DRAC-StaticInformationList,
        TFC-Subset,
        TFCS-Identity,
        UL-AddReconfTransChInfoList,
        UL-CommonTransChInfo,
        UL-CommonTransChInfo-r4,
        UL-DeletedTransChInfoList,
    -- Physical Channel IEs :
        Alpha,
        CCTrCH-PowerControlInfo,
        CCTrCH-PowerControlInfo-r4,
        ConstantValue,
        ConstantValueTdd,
        CPCH-SetInfo,
        DL-CommonInformation,
        DL-CommonInformation-r4,
        DL-CommonInformationPost,
        DL-HSPDSCH-Information,
        DL-InformationPerRL,
        DL-InformationPerRL-List,
        DL-InformationPerRL-List-r4,
        DL-InformationPerRL-List-r5,
        DL-InformationPerRL-ListPostFDD,
        DL-InformationPerRL-PostTDD,
        DL-InformationPerRL-PostTDD-LCR-r4,
        DL-PDSCH-Information,
        DPCH-CompressedModeStatusInfo,
        FrequencyInfo,
        FrequencyInfoFDD,
        FrequencyInfoTDD,
        MaxAllowedUL-TX-Power,
        OpenLoopPowerControl-IPDL-TDD-r4,
        PDSCH-CapacityAllocationInfo,
        PDSCH-CapacityAllocationInfo-r4,
        PDSCH-Identity,
        PrimaryCCPCH-TX-Power,
        PUSCH-CapacityAllocationInfo,
        PUSCH-CapacityAllocationInfo-r4,
        PUSCH-Identity,
```

```
    RL-AdditionInformationList,
    RL-RemovalInformationList,
    SpecialBurstScheduling,
    SSDT-Information,
    TFC-ControlDuration,
    SSDT-UL-r4,
    TimeslotList,
    TimeslotList-r4,
    TX-DiversityMode,
    UL-ChannelRequirement,
    UL-ChannelRequirement-r4,
    UL-ChannelRequirement-r5,
    UL-ChannelRequirementWithCPCH-SetID,
    UL-ChannelRequirementWithCPCH-SetID-r4,
    UL-ChannelRequirementWithCPCH-SetID-r5,
    UL-DPCH-Info,
    UL-DPCH-Info-r4,
    UL-DPCH-InfoPostFDD,
    UL-DPCH-InfoPostTDD,
    UL-DPCH-InfoPostTDD-LCR-r4,
    UL-SynchronisationParameters-r4,
    UL-TimingAdvance,
    UL-TimingAdvanceControl,
    UL-TimingAdvanceControl-r4,
-- Measurement IEs :
    AdditionalMeasurementID-List,
    Frequency-Band,
    EventResults,
    InterFreqEventResults-LCR-r4-ext,
    InterRAT-TargetCellDescription,
    MeasuredResults,
    MeasuredResults-v390ext,
    MeasuredResultsList,
    MeasuredResultsList-LCR-r4-ext,
    MeasuredResultsOnRACH,
    MeasurementCommand,
    MeasurementCommand-r4,
    MeasurementIdentity,
    MeasurementReportingMode,
    PrimaryCCPCH-RSCP,
    SFN-Offset-Validity,
    TimeslotListWithISCP,
    TrafficVolumeMeasuredResultsList,
    UE-Positioning-GPS-AssistanceData,
    UE-Positioning-Measurement-v390ext,
    UE-Positioning-OTDOA-AssistanceData,
    UE-Positioning-OTDOA-AssistanceData-r4ext,
    UE-Positioning-OTDOA-AssistanceData-UEB,
    UE-Positioning-IPDL-Parameters-TDD-r4-ext,
-- Other IEs :
    BCCH-ModificationInfo,
    CDMA2000-MessageList,
    GSM-MessageList,
    InterRAT-ChangeFailureCause,
    InterRAT-HO-FailureCause,
    InterRAT-UE-RadioAccessCapabilityList,
    InterRAT-UE-SecurityCapList,
    IntraDomainNasNodeSelector,
    ProtocolErrorMoreInformation,
    Rplmn-Information,
    Rplmn-Information-r4,
    SegCount,
    SegmentIndex,
    SFN-Prime,
    SIB-Data-fixed,
    SIB-Data-variable,
    SIB-Type
FROM InformationElements

    maxSIBperMsg
FROM Constant-definitions;

-- *************************************************
--
-- ACTIVE SET UPDATE (FDD only)
--
-- *************************************************

ActiveSetUpdate ::= CHOICE {
```

```
    r3                              SEQUENCE {
        activeSetUpdate-r3              ActiveSetUpdate-r3-IEs,
        v4xyNonCriticalExtensions       SEQUENCE {
            activeSetUpdate-v4xyext     ActiveSetUpdate-v4xyext-IEs,
            nonCriticalExtensions           SEQUENCE {} OPTIONAL
        } OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

ActiveSetUpdate-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        newU-RNTI                       U-RNTI                              OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo                  OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,
    -- Physical channel IEs
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power               OPTIONAL,
        rl-AdditionInformationList      RL-AdditionInformationList          OPTIONAL,
        rl-RemovalInformationList       RL-RemovalInformationList           OPTIONAL,
        tx-DiversityMode                TX-DiversityMode                    OPTIONAL,
        ssdt-Information                SSDT-Information                    OPTIONAL
}

ActiveSetUpdate-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information. FDD only.
        ssdt-UL                         SSDT-UL-r4                          OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE RL-AdditionInformationList included in this message
        cell-id-PerRL-List              CellIdentity-PerRL-List             OPTIONAL
}


-- **************************************************
--
-- ACTIVE SET UPDATE COMPLETE (FDD only)
--
-- **************************************************

ActiveSetUpdateComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo         OPTIONAL,
    -- Radio bearer IEs
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList           OPTIONAL,
        ul-CounterSynchronisationInfo   UL-CounterSynchronisationInfo       OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
}

-- **************************************************
--
-- ACTIVE SET UPDATE FAILURE (FDD only)
--
-- **************************************************

ActiveSetUpdateFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
}

-- **************************************************
--
-- Assistance Data Delivery
--
-- **************************************************
```

```
AssistanceDataDelivery ::= CHOICE {
    r3                              SEQUENCE {
        assistanceDataDelivery-r3       AssistanceDataDelivery-r3-IEs,
        v3aoNonCriticalExetensions      SEQUENCE {
            assistanceDataDelivery-v3a0ext  AssistanceDataDelivery-v3a0ext,
            v4xyNonCriticalExtensions       SEQUENCE {
                assistanceDataDelivery-v4xyext
                                                AssistanceDataDelivery-v4xyext-IEs,
                nonCriticalExtensions           SEQUENCE {}                 OPTIONAL
            } OPTIONAL
        } OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

AssistanceDataDelivery-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
    rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- Measurement Information Elements
    ue-positioning-GPS-AssistanceData           UE-Positioning-GPS-AssistanceData
    OPTIONAL,
    ue-positioning-OTDOA-AssistanceData-UEB     UE-Positioning-OTDOA-AssistanceData-UEB
    OPTIONAL
}

AssistanceDataDelivery-v3a0ext ::= SEQUENCE {
    sfn-Offset-Validity             SFN-Offset-Validity    OPTIONAL
}

AssistanceDataDelivery-v4xyext-IEs ::= SEQUENCE {
    ue-Positioning-OTDOA-AssistanceData-r4ext   UE-Positioning-OTDOA-AssistanceData-r4ext   OPTIONAL
}

 -- **************************************************
--
-- CELL CHANGE ORDER FROM UTRAN
--
-- **************************************************

CellChangeOrderFromUTRAN ::= CHOICE {
    r3                              SEQUENCE {
        cellChangeOrderFromUTRAN-IEs        CellChangeOrderFromUTRAN-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

CellChangeOrderFromUTRAN-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
    rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- dummy is not used in this version of the specification, it should
    -- not be sent and if received it should be ignored.
    dummy                           IntegrityProtectionModeInfo         OPTIONAL,
    activationTime                  ActivationTime                      OPTIONAL,
    rab-InformationList             RAB-InformationList                 OPTIONAL,
    interRAT-TargetCellDescription  InterRAT-TargetCellDescription
}

-- **************************************************
--
-- CELL CHANGE ORDER FROM UTRAN FAILURE
--
-- **************************************************

CellChangeOrderFromUTRANFailure ::= CHOICE {
    r3                              SEQUENCE {
        cellChangeOrderFromUTRANFailure-r3
                                        CellChangeOrderFromUTRANFailure-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    -- dummy is not used in this version of the specification and it
```

```
        -- should be ignored.
        dummy                           SEQUENCE {
            rrc-TransactionIdentifier       RRC-TransactionIdentifier,
            criticalExtensions              SEQUENCE {}
        }
}

CellChangeOrderFromUTRANFailure-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        -- dummy is not used in this version of the specification, it should
        -- not be sent and if received it should be ignored.
        dummy                           IntegrityProtectionModeInfo         OPTIONAL,
        interRAT-ChangeFailureCause     InterRAT-ChangeFailureCause
}

-- **************************************************
--
-- CELL UPDATE
--
-- **************************************************

CellUpdate ::= SEQUENCE {
    -- User equipment IEs
        u-RNTI                          U-RNTI,
        startList       STARTList,
        am-RLC-ErrorIndicationRb2-3or4      BOOLEAN,
        am-RLC-ErrorIndicationRb5orAbove    BOOLEAN,
        cellUpdateCause                 CellUpdateCause,
        -- TABULAR: RRC transaction identifier is nested in FailureCauseWithProtErrTrId
        failureCause                    FailureCauseWithProtErrTrId         OPTIONAL,
        rb-timer-indicator              Rb-timer-indicator,
    -- Measurement IEs
        measuredResultsOnRACH           MeasuredResultsOnRACH               OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
}

-- **************************************************
--
-- CELL UPDATE CONFIRM
--
-- **************************************************

CellUpdateConfirm ::= CHOICE {
    r3                              SEQUENCE {
        cellUpdateConfirm-r3            CellUpdateConfirm-r3-IEs,
        v3a0NonCriticalExtensions           SEQUENCE {
            cellUpdateConfirm-v3a0ext           CellUpdateConfirm-v3a0ext,
            v4xyNonCriticalExtensions           SEQUENCE {
                cellUpdateConfirm-v4xyext           CellUpdateConfirm-v4xyext-IEs,
                nonCriticalExtensions               SEQUENCE {} OPTIONAL
            }           OPTIONAL
        }       OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                cellUpdateConfirm-r4                CellUpdateConfirm-r4-IEs,
                nonCriticalExtensions               SEQUENCE {}     OPTIONAL
            },
            criticalExtensions              CHOICE {
                r5                              SEQUENCE {
                    cellUpdateConfirm-r5                CellUpdateConfirm-r5-IEs,
                    nonCriticalExtensions               SEQUENCE {}     OPTIONAL
                },
                criticalExtensions              SEQUENCE {}
            }
        }
    }
}

CellUpdateConfirm-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
```

```
        activationTime                ActivationTime                      OPTIONAL,
        new-U-RNTI                    U-RNTI                              OPTIONAL,
        new-C-RNTI                    C-RNTI                              OPTIONAL,
        rrc-StateIndicator            RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff    UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
        rlc-Re-establishIndicatorRb2-3or4      BOOLEAN,
        rlc-Re-establishIndicatorRb5orAbove    BOOLEAN,
    -- CN information elements
        cn-InformationInfo            CN-InformationInfo                  OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                  URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
        rb-InformationReleaseList     RB-InformationReleaseList           OPTIONAL,
        rb-InformationReconfigList    RB-InformationReconfigList          OPTIONAL,
        rb-InformationAffectedList    RB-InformationAffectedList          OPTIONAL,
        dl-CounterSynchronisationInfo DL-CounterSynchronisationInfo       OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo          UL-CommonTransChInfo                OPTIONAL,
        ul-deletedTransChInfoList     UL-DeletedTransChInfoList           OPTIONAL,
        ul-AddReconfTransChInfoList   UL-AddReconfTransChInfoList         OPTIONAL,
        modeSpecificTransChInfo       CHOICE {
            fdd                           SEQUENCE {
                cpch-SetID                    CPCH-SetID                  OPTIONAL,
                addReconfTransChDRAC-Info     DRAC-StaticInformationList  OPTIONAL
            },
            tdd                           NULL
        },
        dl-CommonTransChInfo          DL-CommonTransChInfo                OPTIONAL,
        dl-DeletedTransChInfoList     DL-DeletedTransChInfoList           OPTIONAL,
        dl-AddReconfTransChInfoList   DL-AddReconfTransChInfoList         OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                 FrequencyInfo                       OPTIONAL,
        maxAllowedUL-TX-Power         MaxAllowedUL-TX-Power               OPTIONAL,
        ul-ChannelRequirement         UL-ChannelRequirement               OPTIONAL,
        modeSpecificPhysChInfo        CHOICE {
            fdd                           SEQUENCE {
                dl-PDSCH-Information           DL-PDSCH-Information        OPTIONAL
            },
            tdd                           NULL
        },
        dl-CommonInformation          DL-CommonInformation                OPTIONAL,
        dl-InformationPerRL-List      DL-InformationPerRL-List            OPTIONAL
}

CellUpdateConfirm-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI              DSCH-RNTI                                   OPTIONAL
}

CellUpdateConfirm-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                       SSDT-UL-r4                          OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE DL-InformationPerRL-List included in this message
        cell-id-PerRL-List            CellIdentity-PerRL-List             OPTIONAL
}

CellUpdateConfirm-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo   IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo             CipheringModeInfo                   OPTIONAL,
        activationTime                ActivationTime                      OPTIONAL,
        new-U-RNTI                    U-RNTI                              OPTIONAL,
        new-C-RNTI                    C-RNTI                              OPTIONAL,
        new-DSCH-RNTI                 DSCH-RNTI                           OPTIONAL,
        rrc-StateIndicator            RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff    UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
        rlc-ResetIndicatorC-Plane     BOOLEAN,
        rlc-ResetIndicatorU-Plane     BOOLEAN,
    -- CN information elements
        cn-InformationInfo            CN-InformationInfo                  OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                  URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
        rb-InformationReleaseList     RB-InformationReleaseList           OPTIONAL,
        rb-InformationReconfigList    RB-InformationReconfigList-r4       OPTIONAL,
        rb-InformationAffectedList    RB-InformationAffectedList          OPTIONAL,
```

```
            dl-CounterSynchronisationInfo    DL-CounterSynchronisationInfo          OPTIONAL,rb-WithPDCP-
InfoList             RB-WithPDCP-InfoList                   OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo-r4            OPTIONAL,
        ul-deletedTransChInfoList       UL-DeletedTransChInfoList          OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList        OPTIONAL,
        modeSpecificTransChInfo         CHOICE {
            fdd                             SEQUENCE {
                cpch-SetID                      CPCH-SetID                 OPTIONAL,
                addReconfTransChDRAC-Info       DRAC-StaticInformationList OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonTransChInfo            DL-CommonTransChInfo-r4            OPTIONAL,
        dl-DeletedTransChInfoList       DL-DeletedTransChInfoList          OPTIONAL,
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfoList-r4     OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                     OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power             OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement-r4          OPTIONAL,
        modeSpecificPhysChInfo          CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information        OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonInformation            DL-CommonInformation-r4           OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List-r4       OPTIONAL
}

CellUpdateConfirm-r5-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo     IntegrityProtectionModeInfo       OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                 OPTIONAL,
        activationTime                  ActivationTime                    OPTIONAL,
        new-U-RNTI                      U-RNTI                            OPTIONAL,
        new-C-RNTI                      C-RNTI                            OPTIONAL,
        new-DSCH-RNTI                   DSCH-RNTI                         OPTIONAL,
        new-H-RNTI                      H-RNTI                            OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient  OPTIONAL,
        rlc-ResetIndicatorC-Plane       BOOLEAN,
        rlc-ResetIndicatorU-Plane       BOOLEAN,
    -- CN information elements
        cn-InformationInfo              CN-InformationInfo                OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                      OPTIONAL,
    -- Radio bearer IEs
        rb-InformationReleaseList       RB-InformationReleaseList         OPTIONAL,
        rb-InformationReconfigList      RB-InformationReconfigList-r5         OPTIONAL,
        rb-InformationAffectedList      RB-InformationAffectedList-r5         OPTIONAL,
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo         OPTIONAL,rb-WithPDCP-
InfoList             RB-WithPDCP-InfoList                   OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo-r4            OPTIONAL,
        ul-deletedTransChInfoList       UL-DeletedTransChInfoList          OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList        OPTIONAL,
        modeSpecificTransChInfo         CHOICE {
            fdd                             SEQUENCE {
                cpch-SetID                      CPCH-SetID                 OPTIONAL,
                addReconfTransChDRAC-Info       DRAC-StaticInformationList OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonTransChInfo            DL-CommonTransChInfo-r4            OPTIONAL,
        dl-DeletedTransChInfoList       DL-DeletedTransChInfoList-r5          OPTIONAL,
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfoList-r5     OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                     OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power             OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement-r5          OPTIONAL,
        modeSpecificPhysChInfo          CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information        OPTIONAL
            },
            tdd                             NULL
        },
        dl-HSPDSCH-Information           DL-HSPDSCH-Information             OPTIONAL,
```

```
        dl-CommonInformation              DL-CommonInformation-r4               OPTIONAL,
        dl-InformationPerRL-List          DL-InformationPerRL-List-r5          OPTIONAL
}

-- **************************************************
--
-- CELL UPDATE CONFIRM for CCCH
--
-- **************************************************

CellUpdateConfirm-CCCH ::= CHOICE {
    r3                              SEQUENCE {
        -- User equipment IEs
            u-RNTI                    U-RNTI,
        -- The rest of the message is identical to the one sent on DCCH.
            cellUpdateConfirm-r3              CellUpdateConfirm-r3-IEs,
            v4xyNonCriticalExtensions       SEQUENCE {
                cellUpdateConfirm-v4xyext    CellUpdateConfirm-v4xyext-IEs,
                nonCriticalExtensions        SEQUENCE {} OPTIONAL
            } OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        u-RNTI                      U-RNTI,
        rrc-TransactionIdentifier   RRC-TransactionIdentifier,
        criticalExtensions          CHOICE {
            r4                          SEQUENCE {
                -- The rest of the message is identical to the one sent on DCCH.
                cellUpdateConfirm-r4        CellUpdateConfirm-r4-IEs,
                nonCriticalExtensions       SEQUENCE {}     OPTIONAL
            },
            criticalExtensions          SEQUENCE {}
        }
    }
}

-- **************************************************
--
-- COUNTER CHECK
--
-- **************************************************

CounterCheck ::= CHOICE {
    r3                              SEQUENCE {
        counterCheck-r3                 CounterCheck-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

CounterCheck-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- Radio bearer IEs
        rb-COUNT-C-MSB-InformationList  RB-COUNT-C-MSB-InformationList
}

-- **************************************************
--
-- COUNTER CHECK RESPONSE
--
-- **************************************************

CounterCheckResponse ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- Radio bearer IEs
        rb-COUNT-C-InformationList      RB-COUNT-C-InformationList          OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
}

-- **************************************************
--
-- DOWNLINK DIRECT TRANSFER
--
```

```
-- **************************************************

DownlinkDirectTransfer ::= CHOICE {
    r3                                  SEQUENCE {
        downlinkDirectTransfer-r3       DownlinkDirectTransfer-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                       SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

DownlinkDirectTransfer-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- Core network IEs
        cn-DomainIdentity               CN-DomainIdentity,
        nas-Message                     NAS-Message
}

-- **************************************************
--
-- HANDOVER TO UTRAN COMMAND
--
-- **************************************************


HandoverToUTRANCommand ::= CHOICE {
    r3                                  SEQUENCE {
        handoverToUTRANCommand-r3       HandoverToUTRANCommand-r3-IEs,
        v4xyNonCriticalExtensions       SEQUENCE {
            handoverToUTRANCommand-v4xyext  HandoverToUTRANCommand-v4xyext-IEs,
            nonCriticalExtensions           SEQUENCE {} OPTIONAL
        } OPTIONAL
    },
    criticalExtensions                  CHOICE {
        r4                                  SEQUENCE {
            handoverToUTRANCommand-r4       HandoverToUTRANCommand-r4-IEs,
            nonCriticalExtensions           SEQUENCE {}     OPTIONAL
        },
        criticalExtensions                  SEQUENCE {}
    }
}

HandoverToUTRANCommand-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        new-U-RNTI                      U-RNTI-Short,
        -- dummy is not used in this version of specification, it should
        -- not be sent and if received it should be ignored.
        dummy                           ActivationTime                  OPTIONAL,
        cipheringAlgorithm              CipheringAlgorithm              OPTIONAL,
    -- Radio bearer IEs
    -- Specification mode information
        specificationMode               CHOICE {
            complete                        SEQUENCE {
                srb-InformationSetupList        SRB-InformationSetupList,
                rab-InformationSetupList        RAB-InformationSetupList            OPTIONAL,
                ul-CommonTransChInfo            UL-CommonTransChInfo,
                ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList,
                dl-CommonTransChInfo            DL-CommonTransChInfo,
                dl-AddReconfTransChInfoList     DL-AddReconfTransChInfoList,
                ul-DPCH-Info                    UL-DPCH-Info,
                modeSpecificInfo                CHOICE {
                    fdd                             SEQUENCE {
                        dl-PDSCH-Information             DL-PDSCH-Information OPTIONAL,
                        cpch-SetInfo                    CPCH-SetInfo        OPTIONAL
                    },
                    tdd                             NULL
                },
                dl-CommonInformation            DL-CommonInformation,
                dl-InformationPerRL-List        DL-InformationPerRL-List,
                frequencyInfo                   FrequencyInfo
            },
            preconfiguration                SEQUENCE {
-- All IEs that include an FDD/TDD choice are split in two IEs for this message,
-- one for the FDD only elements and one for the TDD only elements, so that one
-- FDD/TDD choice in this level is sufficient.
```

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```
            preConfigMode                   CHOICE {
                predefinedConfigIdentity     PredefinedConfigIdentity,
                defaultConfig                SEQUENCE {
                    defaultConfigMode            DefaultConfigMode,
                    defaultConfigIdentity        DefaultConfigIdentity
                }
            },
            rab-Info                        RAB-Info-Post       OPTIONAL,
            modeSpecificInfo                CHOICE {
                fdd                             SEQUENCE {
                    ul-DPCH-Info                    UL-DPCH-InfoPostFDD,
                    dl-CommonInformationPost        DL-CommonInformationPost,
                    dl-InformationPerRL-List        DL-InformationPerRL-ListPostFDD,
                    frequencyInfo                   FrequencyInfoFDD
                },
                tdd                             SEQUENCE {
                    ul-DPCH-Info                    UL-DPCH-InfoPostTDD,
                    dl-CommonInformationPost        DL-CommonInformationPost,
                    dl-InformationPerRL             DL-InformationPerRL-PostTDD,
                    frequencyInfo                   FrequencyInfoTDD,
                    primaryCCPCH-TX-Power           PrimaryCCPCH-TX-Power
                }

            }
        }
    },
    -- Physical channel IEs
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power
}

HandoverToUTRANCommand-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                         SSDT-UL-r4                          OPTIONAL,
        cell-id                         CellIdentity                       OPTIONAL
}

HandoverToUTRANCommand-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        new-U-RNTI                      U-RNTI-Short,
        cipheringAlgorithm              CipheringAlgorithm                 OPTIONAL,
    -- Radio bearer IEs
        rab-Info                        RAB-Info-Post,
    -- Specification mode information
        specificationMode               CHOICE {
            complete                        SEQUENCE {
                srb-InformationSetupList        SRB-InformationSetupList,
                rab-InformationSetupList        RAB-InformationSetupList-r4        OPTIONAL,
                ul-CommonTransChInfo            UL-CommonTransChInfo,
                ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList,
                dl-CommonTransChInfo            DL-CommonTransChInfo,
                dl-AddReconfTransChInfoList     DL-AddReconfTransChInfoList,
                ul-DPCH-Info                    UL-DPCH-Info-r4,
                modeSpecificInfo                CHOICE {
                    fdd                             SEQUENCE {
                        dl-PDSCH-Information             DL-PDSCH-Information OPTIONAL,
                        cpch-SetInfo                    CPCH-SetInfo        OPTIONAL
                    },
                    tdd                             NULL
                },
                dl-CommonInformation            DL-CommonInformation-r4,
                dl-InformationPerRL-List        DL-InformationPerRL-List-r4,
                frequencyInfo                   FrequencyInfo
            },
            preconfiguration               SEQUENCE {
-- All IEs that include an FDD/TDD choice are split in two IEs for this message,
-- one for the FDD only elements and one for the TDD only elements, so that one
-- FDD/TDD choice in this level is sufficient.
                predefinedConfigIdentity        PredefinedConfigIdentity,
                rab-Info                        RAB-Info-Post       OPTIONAL,
                modeSpecificInfo                CHOICE {
                    fdd                             SEQUENCE {
                        ul-DPCH-Info                    UL-DPCH-InfoPostFDD,
                        dl-CommonInformationPost        DL-CommonInformationPost,
                        dl-InformationPerRL-List        DL-InformationPerRL-ListPostFDD,
                        frequencyInfo                   FrequencyInfoFDD
                    },
```

```
                    tdd                             CHOICE {
                        tdd384                          SEQUENCE {
                            ul-DPCH-Info                    UL-DPCH-InfoPostTDD,
                            dl-InformationPerRL             DL-InformationPerRL-PostTDD,
                            frequencyInfo                   FrequencyInfoTDD,
                            primaryCCPCH-TX-Power           PrimaryCCPCH-TX-Power
                        },
                        tdd128                          SEQUENCE {
                            ul-DPCH-Info                    UL-DPCH-InfoPostTDD-LCR-r4,
                            dl-InformationPerRL             DL-InformationPerRL-PostTDD-LCR-r4,
                            frequencyInfo                   FrequencyInfoTDD,
                            primaryCCPCH-TX-Power           PrimaryCCPCH-TX-Power
                        }
                    }
                }
            }
        },
    -- Physical channel IEs
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power
}


-- **************************************************
--
-- HANDOVER TO UTRAN COMPLETE
--
-- **************************************************

HandoverToUTRANComplete ::= SEQUENCE {
    --TABULAR: Integrity protection shall not be performed on this message.
    -- User equipment IEs
    -- TABULAR: startList is conditional on history.
        startList                       STARTList                           OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime          ActivationTime                      OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- INITIAL DIRECT TRANSFER
--
-- **************************************************

InitialDirectTransfer ::= SEQUENCE {
    -- Core network IEs
        cn-DomainIdentity               CN-DomainIdentity,
        intraDomainNasNodeSelector      IntraDomainNasNodeSelector,
        nas-Message                     NAS-Message,
    -- Measurement IEs
        measuredResultsOnRACH           MeasuredResultsOnRACH               OPTIONAL,
        v3a0NonCriticalExtensions       SEQUENCE {
        initialDirectTransfer-v3a0ext   InitialDirectTransfer-v3a0ext,
            -- Extension mechanism for non- release99 information
            nonCriticalExtensions           SEQUENCE {}    OPTIONAL
        }       OPTIONAL
}

InitialDirectTransfer-v3a0ext ::= SEQUENCE {
    -- start-value shall always be included in this version of the protocol
    start-Value                     START-Value                         OPTIONAL
}


-- **************************************************
--
-- HANDOVER FROM UTRAN COMMAND
--
-- **************************************************

HandoverFromUTRANCommand-GSM ::= CHOICE {
    r3                              SEQUENCE {
        handoverFromUTRANCommand-GSM-r3
                                        HandoverFromUTRANCommand-GSM-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
```

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```
            criticalExtensions           SEQUENCE {}
    }
}

HandoverFromUTRANCommand-GSM-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier     RRC-TransactionIdentifier,
        activationTime                ActivationTime                    OPTIONAL,
    -- Radio bearer IEs
        toHandover-Info               RAB-Info                          OPTIONAL,
    -- Measurement IEs
        frequency-band                Frequency-Band,
    -- Other IEs
        gsm-message                   CHOICE {
            -- In the single-GSM-Message case, what follows the basic production is a variable
            -- length bit string with no length field, containing the GSM message including GSM
            -- padding up to end of container, to be analysed according to GSM specifications
            single-GSM-Message        SEQUENCE {},
            gsm-MessageList           SEQUENCE {
                gsm-Messages              GSM-MessageList
            }
        }
}

HandoverFromUTRANCommand-CDMA2000 ::= CHOICE {
    r3                                SEQUENCE {
        handoverFromUTRANCommand-CDMA2000-r3
                                      HandoverFromUTRANCommand-CDMA2000-r3-IEs,
        nonCriticalExtensions         SEQUENCE {} OPTIONAL
    },
    later-than-r3                     SEQUENCE {
        rrc-TransactionIdentifier     RRC-TransactionIdentifier,
        criticalExtensions            SEQUENCE {}
    }
}

HandoverFromUTRANCommand-CDMA2000-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier     RRC-TransactionIdentifier,
        activationTime                ActivationTime                    OPTIONAL,
    -- Radio bearer IEs
        toHandover-Info               RAB-Info                          OPTIONAL,
    -- Other IEs
        cdma2000-MessageList          CDMA2000-MessageList
}

-- **************************************************
--
-- HANDOVER FROM UTRAN FAILURE
--
-- **************************************************

HandoverFromUTRANFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier     RRC-TransactionIdentifier,
    -- Other IEs
        interRAT-HO-FailureCause      InterRAT-HO-FailureCause          OPTIONAL,
        interRATMessage               CHOICE {
            gsm                           SEQUENCE {
                gsm-MessageList               GSM-MessageList
            },
            cdma2000                      SEQUENCE {
                cdma2000-MessageList          CDMA2000-MessageList
            }
        }                 OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions         SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- INTER RAT HANDOVER INFO
--
-- **************************************************

InterRATHandoverInfo ::= SEQUENCE {
    -- This structure is defined for historical reasons, backward compatibility with 04.18
    predefinedConfigStatusList      CHOICE {
```

```
        absent                          NULL,
        present                         PredefinedConfigStatusList
    },
    uE-SecurityInformation      CHOICE {
        absent                          NULL,
        present                         UE-SecurityInformation
    },
    ue-CapabilityContainer      CHOICE {
        absent                          NULL,
        -- present is an octet aligned string containing IE UE-RadioAccessCapabilityInfo
        present                         OCTET STRING (SIZE (0..63))
    },
    -- Non critical extensions
    v390NonCriticalExtensions   CHOICE {
        absent                          NULL,
        present                         SEQUENCE {
            interRATHandoverInfo-v390ext    InterRATHandoverInfo-v390ext-IEs,
            v3a0NonCriticalExtensions       SEQUENCE  {
                interRATHandoverInfo-v3a0ext    InterRATHandoverInfo-v3a0ext,
                v4xyNonCriticalExtensions       SEQUENCE {
                    interRATHandoverInfo-v4xyext    InterRATHandoverInfo-v4xyext-IEs,
                    -- Reserved for future non critical extension
                    nonCriticalExtensions           SEQUENCE {} OPTIONAL
                } OPTIONAL
            } OPTIONAL
        }
    }
}

InterRATHandoverInfo-v390ext-IEs ::= SEQUENCE {
    -- User equipment IEs
    ue-RadioAccessCapability-v380ext    UE-RadioAccessCapability-v380ext        OPTIONAL,
    dl-PhysChCapabilityFDD-v380ext      DL-PhysChCapabilityFDD-v380ext
}

InterRATHandoverInfo-v3a0ext ::= SEQUENCE {
    -- User equipment IEs
    ue-RadioAccessCapability-v3a0ext    UE-RadioAccessCapability-v3a0ext        OPTIONAL
}

InterRATHandoverInfo-v4xyext-IEs ::= SEQUENCE {
    -- User equipment IEs
    ue-RadioAccessCapability-v4xyext    UE-RadioAccessCapability-v4xyext
}

-- **************************************************
--
-- MEASUREMENT CONTROL
--
-- **************************************************

MeasurementControl ::= CHOICE {
    r3                          SEQUENCE {
        measurementControl-r3       MeasurementControl-r3-IEs,
        v390nonCriticalExtensions   SEQUENCE {
            measurementControl-v390ext  MeasurementControl-v390ext,
            v3a0NonCriticalExtensions       SEQUENCE {
                measurementControl-v3a0ext      MeasurementControl-v3a0ext,
                v4xyNonCriticalExtensions       SEQUENCE{
                    measurementControl-v4xyext      MeasurementControl-v4xyext-IEs,
                    nonCriticalExtensions           SEQUENCE {}                OPTIONAL
                }                       OPTIONAL
            }                       OPTIONAL
        }                       OPTIONAL
    },
    later-than-r3               SEQUENCE {
        rrc-TransactionIdentifier   RRC-TransactionIdentifier,
        criticalExtensions          CHOICE {
            r4                          SEQUENCE {
                measurementControl-r4       MeasurementControl-r4-IEs,
                nonCriticalExtensions       SEQUENCE {}     OPTIONAL
            },
            criticalExtensions          SEQUENCE {}
        }
    }
}

MeasurementControl-r3-IEs ::= SEQUENCE {
```

```
        -- User equipment IEs
            rrc-TransactionIdentifier      RRC-TransactionIdentifier,
        -- Measurement IEs
            measurementIdentity    MeasurementIdentity,
            -- TABULAR: The measurement type is included in MeasurementCommand.
            measurementCommand             MeasurementCommand,
            measurementReportingMode       MeasurementReportingMode        OPTIONAL,
            additionalMeasurementList      AdditionalMeasurementID-List     OPTIONAL,
        -- Physical channel IEs
            dpch-CompressedModeStatusInfo  DPCH-CompressedModeStatusInfo    OPTIONAL
}

MeasurementControl-v4xyext-IEs ::= SEQUENCE {
    ue-Positioning-OTDOA-AssistanceData-r4ext   UE-Positioning-OTDOA-AssistanceData-r4ext   OPTIONAL
}

MeasurementControl-v390ext ::= SEQUENCE {
        ue-Positioning-Measurement-v390ext      UE-Positioning-Measurement-v390ext  OPTIONAL
}

MeasurementControl-v3a0ext ::= SEQUENCE {
    sfn-Offset-Validity            SFN-Offset-Validity    OPTIONAL
}

MeasurementControl-r4-IEs ::= SEQUENCE {
    -- Measurement IEs
        measurementIdentity    MeasurementIdentity,
        -- TABULAR: The measurement type is included in measurementCommand.
        measurementCommand             MeasurementCommand-r4,
        measurementReportingMode       MeasurementReportingMode        OPTIONAL,
        additionalMeasurementList      AdditionalMeasurementID-List     OPTIONAL,
    -- Physical channel IEs
        dpch-CompressedModeStatusInfo  DPCH-CompressedModeStatusInfo    OPTIONAL
}

-- **************************************************
--
-- MEASUREMENT CONTROL FAILURE
--
-- **************************************************

MeasurementControlFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier      RRC-TransactionIdentifier,
        failureCause                   FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions          SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- MEASUREMENT REPORT
--
-- **************************************************

MeasurementReport ::= SEQUENCE {
    -- Measurement IEs
        measurementIdentity    MeasurementIdentity,
        measuredResults                MeasuredResults                 OPTIONAL,
        measuredResultsOnRACH          MeasuredResultsOnRACH           OPTIONAL,
        additionalMeasuredResults      MeasuredResultsList             OPTIONAL,
        eventResults                   EventResults                    OPTIONAL,
    -- Non-critical extensions
        v390nonCriticalExtensions              SEQUENCE {
            measurementReport-v390ext      MeasurementReport-v390ext,
            v4xyNonCriticalExtensions          SEQUENCE {
                measurementReport-v4xyext      MeasurementReport-v4xyext-IEs,
                -- Extension mechanism for non-Rel4 information
                nonCriticalExtensions          SEQUENCE {}                     OPTIONAL
            }                             OPTIONAL
        }                         OPTIONAL
}

MeasurementReport-v390ext ::= SEQUENCE {
        measuredResults-v390ext        MeasuredResults-v390ext         OPTIONAL
}

MeasurementReport-v4xyext-IEs ::= SEQUENCE {
```

```
    interFreqEventResults-LCR       InterFreqEventResults-LCR-r4-ext        OPTIONAL,
    additionalMeasuredResults-LCR   MeasuredResultsList-LCR-r4-ext          OPTIONAL
}
 -- **************************************************
--
-- PAGING TYPE 1
--
-- **************************************************

PagingType1 ::= SEQUENCE {
    -- User equipment IEs
     pagingRecordList            PagingRecordList                OPTIONAL,
    -- Other IEs
     bcch-ModificationInfo       BCCH-ModificationInfo           OPTIONAL,
    -- Extension mechanism for non- release99 information
     nonCriticalExtensions       SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- PAGING TYPE 2
--
-- **************************************************

PagingType2 ::= SEQUENCE {
    -- User equipment IEs
       rrc-TransactionIdentifier    RRC-TransactionIdentifier,
       pagingCause                  PagingCause,
    -- Core network IEs
       cn-DomainIdentity            CN-DomainIdentity,
       pagingRecordTypeID           PagingRecordTypeID,
    -- Extension mechanism for non- release99 information
       nonCriticalExtensions        SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION
--
-- **************************************************

PhysicalChannelReconfiguration ::= CHOICE {
    r3                              SEQUENCE {
        physicalChannelReconfiguration-r3
                                        PhysicalChannelReconfiguration-r3-IEs,
        v3a0NonCriticalExtensions         SEQUENCE {
            physicalChannelReconfiguration-v3a0ext    PhysicalChannelReconfiguration-v3a0ext,
            v4xyNonCriticalExtenstions        SEQUENCE {
                physicalChannelReconfiguration-v4xyext
                                            PhysicalChannelReconfiguration-v4xyext-IEs,
                nonCriticalExtensions                   SEQUENCE {} OPTIONAL
            } OPTIONAL
        } OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier    RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
        r4                              SEQUENCE {
            physicalChannelReconfiguration-r4
                                        PhysicalChannelReconfiguration-r4-IEs,
            nonCriticalExtensions           SEQUENCE {}    OPTIONAL
        },
        criticalExtensions              CHOICE {
            r5                              SEQUENCE {
                physicalChannelReconfiguration-r5
                                            PhysicalChannelReconfiguration-r5-IEs,
                nonCriticalExtensions           SEQUENCE {}    OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
        }
    }
}

PhysicalChannelReconfiguration-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
       rrc-TransactionIdentifier    RRC-TransactionIdentifier,
```

```
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        new-U-RNTI                      U-RNTI                              OPTIONAL,
        new-C-RNTI                      C-RNTI                              OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo                  OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                       OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power               OPTIONAL,
        -- TABULAR: UL-ChannelRequirementWithCPCH-SetID contains the choice
        -- between UL DPCH info, CPCH SET info and CPCH set ID.
        ul-ChannelRequirement           UL-ChannelRequirementWithCPCH-SetID   OPTIONAL,
        modeSpecificInfo                CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information         OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonInformation            DL-CommonInformation                OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List            OPTIONAL
}

PhysicalChannelReconfiguration-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI                   DSCH-RNTI                               OPTIONAL
}

PhysicalChannelReconfiguration-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                         SSDT-UL-r4                          OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE DL-InformationPerRL-List included in this message
        cell-id-PerRL-List              CellIdentity-PerRL-List            OPTIONAL
}

PhysicalChannelReconfiguration-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        new-U-RNTI                      U-RNTI                              OPTIONAL,
        new-C-RNTI                      C-RNTI                              OPTIONAL,
        new-DSCH-RNTI                   DSCH-RNTI                           OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo                  OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,rb-WithPDCP-
InfoList         RB-WithPDCP-InfoList            OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                       OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power               OPTIONAL,
        -- TABULAR: UL-ChannelRequirementWithCPCH-SetID-r4 contains the choice
        -- between UL DPCH info, CPCH SET info and CPCH set ID.
        ul-ChannelRequirement           UL-ChannelRequirementWithCPCH-SetID-r4  OPTIONAL,
        modeSpecificInfo                CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information         OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonInformation            DL-CommonInformation-r4             OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List-r4         OPTIONAL
}

PhysicalChannelReconfiguration-r5-IEs ::= SEQUENCE {
    -- User equipment IEs
```

```
            integrityProtectionModeInfo     IntegrityProtectionModeInfo       OPTIONAL,
            cipheringModeInfo               CipheringModeInfo                 OPTIONAL,
            activationTime                  ActivationTime                    OPTIONAL,
            new-U-RNTI                      U-RNTI                            OPTIONAL,
            new-C-RNTI                      C-RNTI                            OPTIONAL,
            new-DSCH-RNTI                   DSCH-RNTI                         OPTIONAL,
            new-H-RNTI                      H-RNTI                            OPTIONAL,
            rrc-StateIndicator              RRC-StateIndicator,
            utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient  OPTIONAL,
        -- Core network IEs
            cn-InformationInfo              CN-InformationInfo                OPTIONAL,
        -- UTRAN mobility IEs
            ura-Identity                    URA-Identity                      OPTIONAL,
        -- Radio bearer IEs
            dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo     OPTIONAL,rb-WithPDCP-
    InfoList        RB-WithPDCP-InfoList              OPTIONAL,
        -- Physical channel IEs
            frequencyInfo                   FrequencyInfo                     OPTIONAL,
            maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power             OPTIONAL,
            -- TABULAR: UL-ChannelRequirementWithCPCH-SetID-r4 contains the choice
            -- between UL DPCH info, CPCH SET info and CPCH set ID.
            ul-ChannelRequirement           UL-ChannelRequirementWithCPCH-SetID-r5  OPTIONAL,
            modeSpecificInfo                CHOICE {
                fdd                             SEQUENCE {
                    dl-PDSCH-Information             DL-PDSCH-Information       OPTIONAL
                },
                tdd                             NULL
            },
            dl-HSPDSCH-Information           DL-HSPDSCH-Information             OPTIONAL,
            dl-CommonInformation             DL-CommonInformation-r4           OPTIONAL,
            dl-InformationPerRL-List         DL-InformationPerRL-List-r5       OPTIONAL
}

-- **************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION COMPLETE
--
-- **************************************************

PhysicalChannelReconfigurationComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo       OPTIONAL,
        -- TABULAR: UL-TimingAdvance is applicable for TDD mode only.
        ul-TimingAdvance                UL-TimingAdvance                  OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime          ActivationTime                    OPTIONAL,
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList         OPTIONAL,
        ul-CounterSynchronisationInfo   UL-CounterSynchronisationInfo     OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION FAILURE
--
-- **************************************************

PhysicalChannelReconfigurationFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier         OPTIONAL,
        failureCause                    FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- PHYSICAL SHARED CHANNEL ALLOCATION (TDD only)
--
-- **************************************************

PhysicalSharedChannelAllocation ::= CHOICE {
    r3                              SEQUENCE {
        physicalSharedChannelAllocation-r3
                                        PhysicalSharedChannelAllocation-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
```

```
    },
    later-than-r3                   SEQUENCE {
        dsch-RNTI                       DSCH-RNTI                           OPTIONAL,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                physicalSharedChannelAllocation-r4
                                            PhysicalSharedChannelAllocation-r4-IEs,
                nonCriticalExtensions           SEQUENCE {}     OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
    }
}

PhysicalSharedChannelAllocation-r3-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- User equipment IEs
        dsch-RNTI                       DSCH-RNTI                           OPTIONAL,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- Physical channel IEs
        ul-TimingAdvance                UL-TimingAdvanceControl             OPTIONAL,
        pusch-CapacityAllocationInfo    PUSCH-CapacityAllocationInfo       OPTIONAL,
        pdsch-CapacityAllocationInfo    PDSCH-CapacityAllocationInfo       OPTIONAL,
        -- TABULAR: If the above value is not present, the default value "No Confirm"
        -- shall be used as specified in 10.2.25.
        confirmRequest                  ENUMERATED {
                                            confirmPDSCH, confirmPUSCH }    OPTIONAL,
        trafficVolumeReportRequest      INTEGER (0..255)                   OPTIONAL,
        iscpTimeslotList                TimeslotList                       OPTIONAL,
        requestPCCPCHRSCP               BOOLEAN
}

PhysicalSharedChannelAllocation-r4-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- Physical channel IEs
        ul-TimingAdvance                UL-TimingAdvanceControl-r4         OPTIONAL,
        pusch-CapacityAllocationInfo    PUSCH-CapacityAllocationInfo-r4    OPTIONAL,
        pdsch-CapacityAllocationInfo    PDSCH-CapacityAllocationInfo-r4    OPTIONAL,
        -- TABULAR: If confirmRequest is not present, the default value "No Confirm"
        -- shall be used as specified in 10.2.25.
        confirmRequest                  ENUMERATED {
                                            confirmPDSCH, confirmPUSCH }    OPTIONAL,
        iscpTimeslotList                TimeslotList-r4                    OPTIONAL,
        requestPCCPCHRSCP               BOOLEAN
}

-- **************************************************
--
-- PUSCH CAPACITY REQUEST (TDD only)
--
-- **************************************************

PUSCHCapacityRequest ::= SEQUENCE {
    -- User equipment IEs
        dsch-RNTI                       DSCH-RNTI                           OPTIONAL,
    -- Measurement IEs
        trafficVolume                   TrafficVolumeMeasuredResultsList,
        timeslotListWithISCP            TimeslotListWithISCP               OPTIONAL,
        primaryCCPCH-RSCP               PrimaryCCPCH-RSCP                  OPTIONAL,
        allocationConfirmation          CHOICE {
            pdschConfirmation               PDSCH-Identity,
            puschConfirmation               PUSCH-Identity
        }                                                                   OPTIONAL,
        protocolErrorIndicator          ProtocolErrorIndicatorWithMoreInfo,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
}

-- **************************************************
--
-- RADIO BEARER RECONFIGURATION
--
-- **************************************************

RadioBearerReconfiguration ::= CHOICE {
    r3                              SEQUENCE {
        radioBearerReconfiguration-r3   RadioBearerReconfiguration-r3-IEs,
```

```
        v3a0NonCriticalExtensions       SEQUENCE {
            radioBearerReconfiguration-v3a0ext  RadioBearerReconfiguration-v3a0ext,
            v4xyNonCriticalExtensions          SEQUENCE {
                radioBearerReconfiguration-v4xyext
                                                RadioBearerReconfiguration-v4xyext-IEs,
                nonCriticalExtensions              SEQUENCE {} OPTIONAL
            }  OPTIONAL
        }  OPTIONAL
    },
    later-than-r3                  SEQUENCE {
        rrc-TransactionIdentifier      RRC-TransactionIdentifier,
        criticalExtensions             CHOICE {
            r4                             SEQUENCE {
                radioBearerReconfiguration-r4  RadioBearerReconfiguration-r4-IEs,
                nonCriticalExtensions          SEQUENCE {}     OPTIONAL
            },
            criticalExtensions             CHOICE {
                r5                             SEQUENCE {
                    radioBearerReconfiguration-r5      RadioBearerReconfiguration-r5-IEs,
                    nonCriticalExtensions              SEQUENCE {}     OPTIONAL
                },
                criticalExtensions             SEQUENCE {}
            }
        }
    }
}

RadioBearerReconfiguration-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier      RRC-TransactionIdentifier,
        integrityProtectionModeInfo    IntegrityProtectionModeInfo    OPTIONAL,
        cipheringModeInfo              CipheringModeInfo              OPTIONAL,
        activationTime                 ActivationTime                 OPTIONAL,
        new-U-RNTI                     U-RNTI                         OPTIONAL,
        new-C-RNTI                     C-RNTI                         OPTIONAL,
        rrc-StateIndicator             RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff     UTRAN-DRX-CycleLengthCoefficient   OPTIONAL,
    -- Core network IEs
        cn-InformationInfo             CN-InformationInfo             OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                   URA-Identity                   OPTIONAL,
    -- Radio bearer IEs
        rab-InformationReconfigList    RAB-InformationReconfigList    OPTIONAL,
        -- NOTE: IE rb-InformationReconfigList should be optional in later versions
        -- of this message
        rb-InformationReconfigList     RB-InformationReconfigList,
        rb-InformationAffectedList     RB-InformationAffectedList     OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo           UL-CommonTransChInfo           OPTIONAL,
        ul-deletedTransChInfoList      UL-DeletedTransChInfoList      OPTIONAL,
        ul-AddReconfTransChInfoList    UL-AddReconfTransChInfoList    OPTIONAL,
        modeSpecificTransChInfo        CHOICE {
            fdd                            SEQUENCE {
                cpch-SetID                     CPCH-SetID                 OPTIONAL,
                addReconfTransChDRAC-Info      DRAC-StaticInformationList OPTIONAL
            },
            tdd                            NULL
        }                                                             OPTIONAL,
        dl-CommonTransChInfo           DL-CommonTransChInfo           OPTIONAL,
        dl-DeletedTransChInfoList      DL-DeletedTransChInfoList      OPTIONAL,
        dl-AddReconfTransChInfoList    DL-AddReconfTransChInfo2List   OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                  FrequencyInfo                  OPTIONAL,
        maxAllowedUL-TX-Power          MaxAllowedUL-TX-Power          OPTIONAL,
        ul-ChannelRequirement          UL-ChannelRequirement          OPTIONAL,
        modeSpecificPhysChInfo         CHOICE {
            fdd                            SEQUENCE {
                dl-PDSCH-Information            DL-PDSCH-Information        OPTIONAL
            },
            tdd                            NULL
        },
        dl-CommonInformation           DL-CommonInformation           OPTIONAL,
        -- NOTE: IE dl-InformationPerRL-List should be optional in later versions
        -- of this message
        dl-InformationPerRL-List       DL-InformationPerRL-List
}

RadioBearerReconfiguration-v3a0ext ::= SEQUENCE {
```

```
        new-DSCH-RNTI                   DSCH-RNTI                           OPTIONAL
}

RadioBearerReconfiguration-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                         SSDT-UL-r4                          OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE DL-InformationPerRL-List included in this message
        cell-id-PerRL-List              CellIdentity-PerRL-List             OPTIONAL
}

RadioBearerReconfiguration-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        new-U-RNTI                      U-RNTI                              OPTIONAL,
        new-C-RNTI                      C-RNTI                              OPTIONAL,
        new-DSCH-RNTI                   DSCH-RNTI                           OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo                  OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
        rab-InformationReconfigList     RAB-InformationReconfigList         OPTIONAL,
        rb-InformationReconfigList      RB-InformationReconfigList-r4       OPTIONAL,
        rb-InformationAffectedList      RB-InformationAffectedList          OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo-r4             OPTIONAL,
        ul-deletedTransChInfoList       UL-DeletedTransChInfoList           OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList         OPTIONAL,
        modeSpecificTransChInfo         CHOICE {
            fdd                             SEQUENCE {
                cpch-SetID                      CPCH-SetID                  OPTIONAL,
                addReconfTransChDRAC-Info       DRAC-StaticInformationList  OPTIONAL
            },
            tdd                             NULL
        }                                                                   OPTIONAL,
        dl-CommonTransChInfo            DL-CommonTransChInfo-r4             OPTIONAL,
        dl-DeletedTransChInfoList       DL-DeletedTransChInfoList           OPTIONAL,
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfo2List        OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                       OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power               OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement-r4            OPTIONAL,
        modeSpecificPhysChInfo          CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information         OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonInformation            DL-CommonInformation-r4            OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List-r4         OPTIONAL
}

RadioBearerReconfiguration-r5-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        new-U-RNTI                      U-RNTI                              OPTIONAL,
        new-C-RNTI                      C-RNTI                              OPTIONAL,
        new-DSCH-RNTI                   DSCH-RNTI                           OPTIONAL,
        new-H-RNTI                      H-RNTI                              OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo                  OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
        rab-InformationReconfigList     RAB-InformationReconfigList         OPTIONAL,
        rb-InformationReconfigList      RB-InformationReconfigList-r5       OPTIONAL,
        rb-InformationAffectedList      RB-InformationAffectedList-r5               OPTIONAL,
```

```
        -- Transport channel IEs
            ul-CommonTransChInfo            UL-CommonTransChInfo-r4             OPTIONAL,
            ul-deletedTransChInfoList       UL-DeletedTransChInfoList           OPTIONAL,
            ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList         OPTIONAL,
            modeSpecificTransChInfo         CHOICE {
                fdd                             SEQUENCE {
                    cpch-SetID                      CPCH-SetID                     OPTIONAL,
                    addReconfTransChDRAC-Info       DRAC-StaticInformationList  OPTIONAL
                },
                tdd                             NULL
            }                                                                      OPTIONAL,
            dl-CommonTransChInfo            DL-CommonTransChInfo-r4             OPTIONAL,
            dl-DeletedTransChInfoList      DL-DeletedTransChInfoList-r5            OPTIONAL,
            dl-AddReconfTransChInfoList    DL-AddReconfTransChInfoList-r5      OPTIONAL,
        -- Physical channel IEs
            frequencyInfo                  FrequencyInfo                       OPTIONAL,
            maxAllowedUL-TX-Power          MaxAllowedUL-TX-Power               OPTIONAL,
            ul-ChannelRequirement          UL-ChannelRequirement-r5            OPTIONAL,
            modeSpecificPhysChInfo         CHOICE {
                fdd                             SEQUENCE {
                    dl-PDSCH-Information             DL-PDSCH-Information        OPTIONAL
                },
                tdd                             NULL
            },
            dl-HSPDSCH-Information          DL-HSPDSCH-Information               OPTIONAL,
            dl-CommonInformation           DL-CommonInformation-r4             OPTIONAL,
            dl-InformationPerRL-List       DL-InformationPerRL-List-r5         OPTIONAL
}


-- **************************************************
--
-- RADIO BEARER RECONFIGURATION COMPLETE
--
-- **************************************************

RadioBearerReconfigurationComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo         OPTIONAL,
        -- TABULAR: UL-TimingAdvance is applicable for TDD mode only.
        ul-TimingAdvance                UL-TimingAdvance                    OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime          ActivationTime                      OPTIONAL,
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList           OPTIONAL,
        ul-CounterSynchronisationInfo   UL-CounterSynchronisationInfo       OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
}


-- **************************************************
--
-- RADIO BEARER RECONFIGURATION FAILURE
--
-- **************************************************

RadioBearerReconfigurationFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Radio bearer IEs
        potentiallySuccesfulBearerList  RB-IdentityList                     OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
}


-- **************************************************
--
-- RADIO BEARER RELEASE
--
-- **************************************************

RadioBearerRelease ::= CHOICE {
    r3                              SEQUENCE {
        radioBearerRelease-r3           RadioBearerRelease-r3-IEs,
        v3a0NonCriticalExtensions       SEQUENCE {
            radioBearerRelease-v3a0ext      RadioBearerRelease-v3a0ext,
            v4xyNonCriticalExtensions       SEQUENCE {
                radioBearerRelease-v4xyext      RadioBearerRelease-v4xyext-IEs,
```

```
                nonCriticalExtensions           SEQUENCE {} OPTIONAL
            }   OPTIONAL
        }   OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                radioBearerRelease-r4           RadioBearerRelease-r4-IEs,
                nonCriticalExtensions           SEQUENCE {}     OPTIONAL
            },
            criticalExtensions              CHOICE {
                r5                              SEQUENCE {
                    radioBearerRelease-r5           RadioBearerRelease-r5-IEs,
                    nonCriticalExtensions           SEQUENCE {}     OPTIONAL
                },
                criticalExtensions              SEQUENCE {}
            }
        }
    }
}

RadioBearerRelease-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
    rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
    cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
    activationTime                  ActivationTime                      OPTIONAL,
    new-U-RNTI                      U-RNTI                              OPTIONAL,
    new-C-RNTI                      C-RNTI                              OPTIONAL,
    rrc-StateIndicator              RRC-StateIndicator,
    utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
    -- Core network IEs
    cn-InformationInfo              CN-InformationInfo                  OPTIONAL,
    signallingConnectionRelIndication   CN-DomainIdentity               OPTIONAL,
    -- UTRAN mobility IEs
    ura-Identity                    URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
    rab-InformationReconfigList     RAB-InformationReconfigList         OPTIONAL,
    rb-InformationReleaseList       RB-InformationReleaseList,
    rb-InformationAffectedList      RB-InformationAffectedList          OPTIONAL,
    dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,
    -- Transport channel IEs
    ul-CommonTransChInfo            UL-CommonTransChInfo                OPTIONAL,
    ul-deletedTransChInfoList       UL-DeletedTransChInfoList           OPTIONAL,
    ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList         OPTIONAL,
    modeSpecificTransChInfo         CHOICE {
        fdd                             SEQUENCE {
            cpch-SetID                      CPCH-SetID                  OPTIONAL,
            addReconfTransChDRAC-Info       DRAC-StaticInformationList  OPTIONAL
        },
        tdd                             NULL
    }                                                                   OPTIONAL,
    dl-CommonTransChInfo            DL-CommonTransChInfo                OPTIONAL,
    dl-DeletedTransChInfoList       DL-DeletedTransChInfoList           OPTIONAL,
    dl-AddReconfTransChInfoList     DL-AddReconfTransChInfo2List        OPTIONAL,
    -- Physical channel IEs
    frequencyInfo                   FrequencyInfo                       OPTIONAL,
    maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power               OPTIONAL,
    ul-ChannelRequirement           UL-ChannelRequirement               OPTIONAL,
    modeSpecificPhysChInfo          CHOICE {
        fdd                             SEQUENCE {
            dl-PDSCH-Information             DL-PDSCH-Information         OPTIONAL
        },
        tdd                             NULL
    },
    dl-CommonInformation            DL-CommonInformation                OPTIONAL,
    dl-InformationPerRL-List        DL-InformationPerRL-List            OPTIONAL
}

RadioBearerRelease-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI                   DSCH-RNTI                                   OPTIONAL
}

RadioBearerRelease-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- IE ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
```

```
            ssdt-UL                         SSDT-UL-r4                        OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        --  in IE DL-InformationPerRL-List included in this message
            cell-id-PerRL-List             CellIdentity-PerRL-List           OPTIONAL
    }

    RadioBearerRelease-r4-IEs ::= SEQUENCE {
        -- User equipment IEs
            integrityProtectionModeInfo    IntegrityProtectionModeInfo       OPTIONAL,
            cipheringModeInfo              CipheringModeInfo                 OPTIONAL,
            activationTime                 ActivationTime                    OPTIONAL,
            new-U-RNTI                     U-RNTI                            OPTIONAL,
            new-C-RNTI                     C-RNTI                            OPTIONAL,
            new-DSCH-RNTI                  DSCH-RNTI                         OPTIONAL,
            rrc-StateIndicator             RRC-StateIndicator,
            utran-DRX-CycleLengthCoeff     UTRAN-DRX-CycleLengthCoefficient  OPTIONAL,
        -- Core network IEs
            cn-InformationInfo             CN-InformationInfo                OPTIONAL,
            signallingConnectionRelIndication   CN-DomainIdentity            OPTIONAL,
        -- UTRAN mobility IEs
            ura-Identity                   URA-Identity                      OPTIONAL,
        -- Radio bearer IEs
            rab-InformationReconfigList    RAB-InformationReconfigList       OPTIONAL,
            rb-InformationReleaseList      RB-InformationReleaseList,
            rb-InformationAffectedList     RB-InformationAffectedList        OPTIONAL,
            dl-CounterSynchronisationInfo  DL-CounterSynchronisationInfo     OPTIONAL,rb-WithPDCP-
    InfoList           RB-WithPDCP-InfoList              OPTIONAL,
        -- Transport channel IEs
            ul-CommonTransChInfo           UL-CommonTransChInfo-r4           OPTIONAL,
            ul-deletedTransChInfoList      UL-DeletedTransChInfoList         OPTIONAL,
            ul-AddReconfTransChInfoList    UL-AddReconfTransChInfoList       OPTIONAL,
            modeSpecificTransChInfo        CHOICE {
                fdd                            SEQUENCE {
                    cpch-SetID                     CPCH-SetID                OPTIONAL,
                    addReconfTransChDRAC-Info      DRAC-StaticInformationList OPTIONAL
                },
                tdd                            NULL
            }                                                                OPTIONAL,
            dl-CommonTransChInfo           DL-CommonTransChInfo-r4           OPTIONAL,
            dl-DeletedTransChInfoList      DL-DeletedTransChInfoList         OPTIONAL,
            dl-AddReconfTransChInfoList    DL-AddReconfTransChInfo2List      OPTIONAL,
        -- Physical channel IEs
            frequencyInfo                  FrequencyInfo                     OPTIONAL,
            maxAllowedUL-TX-Power          MaxAllowedUL-TX-Power             OPTIONAL,
            ul-ChannelRequirement          UL-ChannelRequirement-r4          OPTIONAL,
            modeSpecificPhysChInfo         CHOICE {
                fdd                            SEQUENCE {
                    dl-PDSCH-Information            DL-PDSCH-Information       OPTIONAL
                },
                tdd                            NULL
            },
            dl-CommonInformation           DL-CommonInformation-r4           OPTIONAL,
            dl-InformationPerRL-List       DL-InformationPerRL-List-r4       OPTIONAL
    }

    RadioBearerRelease-r5-IEs ::= SEQUENCE {
        -- User equipment IEs
            integrityProtectionModeInfo    IntegrityProtectionModeInfo       OPTIONAL,
            cipheringModeInfo              CipheringModeInfo                 OPTIONAL,
            activationTime                 ActivationTime                    OPTIONAL,
            new-U-RNTI                     U-RNTI                            OPTIONAL,
            new-C-RNTI                     C-RNTI                            OPTIONAL,
            new-DSCH-RNTI                  DSCH-RNTI                         OPTIONAL,
            new-H-RNTI                     H-RNTI                            OPTIONAL,
            rrc-StateIndicator             RRC-StateIndicator,
            utran-DRX-CycleLengthCoeff     UTRAN-DRX-CycleLengthCoefficient  OPTIONAL,
        -- Core network IEs
            cn-InformationInfo             CN-InformationInfo                OPTIONAL,
            signallingConnectionRelIndication   CN-DomainIdentity            OPTIONAL,
        -- UTRAN mobility IEs
            ura-Identity                   URA-Identity                      OPTIONAL,
        -- Radio bearer IEs
            rab-InformationReconfigList    RAB-InformationReconfigList       OPTIONAL,
            rb-InformationReleaseList      RB-InformationReleaseList,
            rb-InformationAffectedList     RB-InformationAffectedList-r5     OPTIONAL,
            dl-CounterSynchronisationInfo  DL-CounterSynchronisationInfo     OPTIONAL,rb-WithPDCP-
    InfoList           RB-WithPDCP-InfoList              OPTIONAL,
        -- Transport channel IEs
```

```
        ul-CommonTransChInfo             UL-CommonTransChInfo-r4               OPTIONAL,
        ul-deletedTransChInfoList        UL-DeletedTransChInfoList             OPTIONAL,
        ul-AddReconfTransChInfoList      UL-AddReconfTransChInfoList           OPTIONAL,
        modeSpecificTransChInfo          CHOICE {
            fdd                              SEQUENCE {
                cpch-SetID                       CPCH-SetID                    OPTIONAL,
                addReconfTransChDRAC-Info    DRAC-StaticInformationList OPTIONAL
            },
            tdd                              NULL
        }                                                                      OPTIONAL,
        dl-CommonTransChInfo             DL-CommonTransChInfo-r4               OPTIONAL,
        dl-DeletedTransChInfoList        DL-DeletedTransChInfoList-r5          OPTIONAL,
        dl-AddReconfTransChInfoList      DL-AddReconfTransChInfoList-r5        OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                    FrequencyInfo                        OPTIONAL,
        maxAllowedUL-TX-Power            MaxAllowedUL-TX-Power                OPTIONAL,
        ul-ChannelRequirement            UL-ChannelRequirement-r5             OPTIONAL,
        modeSpecificPhysChInfo           CHOICE {
            fdd                              SEQUENCE {
                dl-PDSCH-Information              DL-PDSCH-Information          OPTIONAL
            },
            tdd                              NULL
        },
        dl-HSPDSCH-Information            DL-HSPDSCH-Information                OPTIONAL,
        dl-CommonInformation             DL-CommonInformation-r4              OPTIONAL,
        dl-InformationPerRL-List         DL-InformationPerRL-List-r5          OPTIONAL
}


-- **************************************************
--
-- RADIO BEARER RELEASE COMPLETE
--
-- **************************************************

RadioBearerReleaseComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo       IntegrityProtActivationInfo          OPTIONAL,
        -- TABULAR: UL-TimingAdvance is applicable for TDD mode only.
        ul-TimingAdvance                 UL-TimingAdvance                     OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime           ActivationTime                       OPTIONAL,
        rb-UL-CiphActivationTimeInfo     RB-ActivationTimeInfoList            OPTIONAL,
        ul-CounterSynchronisationInfo    UL-CounterSynchronisationInfo        OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions            SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- RADIO BEARER RELEASE FAILURE
--
-- **************************************************

RadioBearerReleaseFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
        failureCause                     FailureCauseWithProtErr,
    -- Radio bearer IEs
        potentiallySuccesfulBearerList   RB-IdentityList                      OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions            SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- RADIO BEARER SETUP
--
-- **************************************************

RadioBearerSetup ::= CHOICE {
    r3                               SEQUENCE {
        radioBearerSetup-r3              RadioBearerSetup-r3-IEs,
        v3a0NonCriticalExtensions        SEQUENCE {
            radioBearerSetup-v3a0ext         RadioBearerSetup-v3a0ext,
            v4xyNonCriticalExtensions        SEQUENCE {
                radioBearerSetup-v4xyext         RadioBearerSetup-v4xyext-IEs,
```

```
                    nonCriticalExtensions           SEQUENCE {} OPTIONAL
                }   OPTIONAL
            }   OPTIONAL
        },
        later-than-r3                   SEQUENCE {
            rrc-TransactionIdentifier       RRC-TransactionIdentifier,
            criticalExtensions              CHOICE {
                r4                              SEQUENCE {
                    radioBearerSetup-r4             RadioBearerSetup-r4-IEs,
                    nonCriticalExtensions           SEQUENCE {}    OPTIONAL
                },
                criticalExtensions              CHOICE {
                    r5                              SEQUENCE {
                        radioBearerSetup-r5             RadioBearerSetup-r5-IEs,
                        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
                    },
                    criticalExtensions              SEQUENCE {}
                }
            }
        }
    }
}

RadioBearerSetup-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        new-U-RNTI                      U-RNTI                              OPTIONAL,
        new-C-RNTI                      C-RNTI                              OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient    OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                        OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo                  OPTIONAL,
    -- Radio bearer IEs
        srb-InformationSetupList        SRB-InformationSetupList            OPTIONAL,
        rab-InformationSetupList        RAB-InformationSetupList            OPTIONAL,
        rb-InformationAffectedList      RB-InformationAffectedList          OPTIONAL,
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo                OPTIONAL,
        ul-deletedTransChInfoList       UL-DeletedTransChInfoList           OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList         OPTIONAL,
        modeSpecificTransChInfo         CHOICE {
            fdd                             SEQUENCE {
                cpch-SetID                      CPCH-SetID                  OPTIONAL,
                addReconfTransChDRAC-Info       DRAC-StaticInformationList  OPTIONAL
            },
            tdd                             NULL
        }                                                                   OPTIONAL,
        dl-CommonTransChInfo            DL-CommonTransChInfo                OPTIONAL,
        dl-DeletedTransChInfoList       DL-DeletedTransChInfoList           OPTIONAL,
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfoList         OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                       OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power               OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement               OPTIONAL,
        modeSpecificPhysChInfo          CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information         OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonInformation            DL-CommonInformation                OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List            OPTIONAL
}

RadioBearerSetup-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI                       DSCH-RNTI                                       OPTIONAL
}

RadioBearerSetup-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                         SSDT-UL-r4                                      OPTIONAL,
```

```
            -- The order of the RLs in IE cell-id-PerRL-List is the same as
            -- in IE DL-InformationPerRL-List included in this message
            cell-id-PerRL-List                CellIdentity-PerRL-List          OPTIONAL
}

RadioBearerSetup-r4-IEs ::= SEQUENCE {
        -- User equipment IEs
            integrityProtectionModeInfo       IntegrityProtectionModeInfo      OPTIONAL,
            cipheringModeInfo                 CipheringModeInfo                OPTIONAL,
            activationTime                    ActivationTime                   OPTIONAL,
            new-U-RNTI                        U-RNTI                           OPTIONAL,
            new-C-RNTI                        C-RNTI                           OPTIONAL,
            new-DSCH-RNTI                     DSCH-RNTI                        OPTIONAL,
            rrc-StateIndicator                RRC-StateIndicator,
            utran-DRX-CycleLengthCoeff        UTRAN-DRX-CycleLengthCoefficient OPTIONAL,
        -- UTRAN mobility IEs
            ura-Identity                      URA-Identity                     OPTIONAL,
        -- Core network IEs
            cn-InformationInfo                CN-InformationInfo               OPTIONAL,
        -- Radio bearer IEs
            srb-InformationSetupList          SRB-InformationSetupList         OPTIONAL,
            rab-InformationSetupList          RAB-InformationSetupList-r4      OPTIONAL,
            rb-InformationAffectedList        RB-InformationAffectedList       OPTIONAL,
            dl-CounterSynchronisationInfo     DL-CounterSynchronisationInfo    OPTIONAL,rb-WithPDCP-
InfoList            RB-WithPDCP-InfoList               OPTIONAL,
        -- Transport channel IEs
            ul-CommonTransChInfo              UL-CommonTransChInfo-r4          OPTIONAL,
            ul-deletedTransChInfoList         UL-DeletedTransChInfoList        OPTIONAL,
            ul-AddReconfTransChInfoList       UL-AddReconfTransChInfoList      OPTIONAL,
            modeSpecificTransChInfo           CHOICE {
                fdd                               SEQUENCE {
                    cpch-SetID                        CPCH-SetID               OPTIONAL,
                    addReconfTransChDRAC-Info         DRAC-StaticInformationList OPTIONAL
                },
                tdd                               NULL
            }                                                                  OPTIONAL,
            dl-CommonTransChInfo              DL-CommonTransChInfo-r4          OPTIONAL,
            dl-DeletedTransChInfoList         DL-DeletedTransChInfoList        OPTIONAL,
            dl-AddReconfTransChInfoList       DL-AddReconfTransChInfoList-r4   OPTIONAL,
        -- Physical channel IEs
            frequencyInfo                     FrequencyInfo                    OPTIONAL,
            maxAllowedUL-TX-Power             MaxAllowedUL-TX-Power            OPTIONAL,
            ul-ChannelRequirement             UL-ChannelRequirement-r4         OPTIONAL,
            modeSpecificPhysChInfo            CHOICE {
                fdd                               SEQUENCE {
                    dl-PDSCH-Information               DL-PDSCH-Information      OPTIONAL
                },
                tdd                               NULL
            },
            dl-CommonInformation             DL-CommonInformation-r4          OPTIONAL,
            dl-InformationPerRL-List         DL-InformationPerRL-List-r4      OPTIONAL
}

RadioBearerSetup-r5-IEs ::= SEQUENCE {
        -- User equipment IEs
            integrityProtectionModeInfo       IntegrityProtectionModeInfo      OPTIONAL,
            cipheringModeInfo                 CipheringModeInfo                OPTIONAL,
            activationTime                    ActivationTime                   OPTIONAL,
            new-U-RNTI                        U-RNTI                           OPTIONAL,
            new-C-RNTI                        C-RNTI                           OPTIONAL,
            new-DSCH-RNTI                     DSCH-RNTI                        OPTIONAL,
            new-H-RNTI                        H-RNTI                           OPTIONAL,
            rrc-StateIndicator                RRC-StateIndicator,
            utran-DRX-CycleLengthCoeff        UTRAN-DRX-CycleLengthCoefficient OPTIONAL,
        -- UTRAN mobility IEs
            ura-Identity                      URA-Identity                     OPTIONAL,
        -- Core network IEs
            cn-InformationInfo                CN-InformationInfo               OPTIONAL,
        -- Radio bearer IEs
            srb-InformationSetupList          SRB-InformationSetupList         OPTIONAL,
            rab-InformationSetupList          RAB-InformationSetupList-r4      OPTIONAL,
            rb-InformationAffectedList        RB-InformationAffectedList-r5        OPTIONAL,
            dl-CounterSynchronisationInfo     DL-CounterSynchronisationInfo    OPTIONAL,rb-WithPDCP-
InfoList            RB-WithPDCP-InfoList               OPTIONAL,
        -- Transport channel IEs
            ul-CommonTransChInfo              UL-CommonTransChInfo-r4          OPTIONAL,
            ul-deletedTransChInfoList         UL-DeletedTransChInfoList        OPTIONAL,
            ul-AddReconfTransChInfoList       UL-AddReconfTransChInfoList      OPTIONAL,
```

```
            modeSpecificTransChInfo        CHOICE {
                fdd                         SEQUENCE {
                    cpch-SetID                      CPCH-SetID                  OPTIONAL,
                    addReconfTransChDRAC-Info       DRAC-StaticInformationList  OPTIONAL
                },
                tdd                         NULL
            }                                                                   OPTIONAL,
            dl-CommonTransChInfo           DL-CommonTransChInfo-r4              OPTIONAL,
            dl-DeletedTransChInfoList      DL-DeletedTransChInfoList-r5             OPTIONAL,
            dl-AddReconfTransChInfoList    DL-AddReconfTransChInfoList-r5       OPTIONAL,
        -- Physical channel IEs
            frequencyInfo                  FrequencyInfo                        OPTIONAL,
            maxAllowedUL-TX-Power          MaxAllowedUL-TX-Power                OPTIONAL,
            ul-ChannelRequirement          UL-ChannelRequirement-r5             OPTIONAL,
            modeSpecificPhysChInfo         CHOICE {
                fdd                         SEQUENCE {
                    dl-PDSCH-Information             DL-PDSCH-Information         OPTIONAL
                },
                tdd                         NULL
            },
            dl-HSPDSCH-Information          DL-HSPDSCH-Information                OPTIONAL,
            dl-CommonInformation           DL-CommonInformation-r4              OPTIONAL,
            dl-InformationPerRL-List       DL-InformationPerRL-List-r5          OPTIONAL
}


-- **************************************************
--
-- RADIO BEARER SETUP COMPLETE
--
-- **************************************************

RadioBearerSetupComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo             OPTIONAL,
        -- TABULAR: UL-TimingAdvance is applicable for TDD mode only.
        ul-TimingAdvance                UL-TimingAdvance                        OPTIONAL,
        start-Value             START-Value                                     OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime          ActivationTime                         OPTIONAL,
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList              OPTIONAL,
        ul-CounterSynchronisationInfo   UL-CounterSynchronisationInfo          OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}


-- **************************************************
--
-- RADIO BEARER SETUP FAILURE
--
-- **************************************************

RadioBearerSetupFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Radio bearer IEs
        potentiallySuccesfulBearerList  RB-IdentityList                        OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}


-- **************************************************
--
-- RRC CONNECTION REJECT
--
-- **************************************************

RRCConnectionReject ::= CHOICE {
    r3                              SEQUENCE {
        rrcConnectionReject-r3          RRCConnectionReject-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        initialUE-Identity              InitialUE-Identity,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
```

```
}

RRCConnectionReject-r3-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- User equipment IEs
        initialUE-Identity          InitialUE-Identity,
        rrc-TransactionIdentifier   RRC-TransactionIdentifier,
        rejectionCause              RejectionCause,
        waitTime                    WaitTime,
        redirectionInfo             RedirectionInfo                 OPTIONAL
}

-- **************************************************
--
-- RRC CONNECTION RELEASE
--
-- **************************************************

RRCConnectionRelease ::= CHOICE {
    r3                              SEQUENCE {
        rrcConnectionRelease-r3     RRCConnectionRelease-r3-IEs,
        nonCriticalExtensions       SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier   RRC-TransactionIdentifier,
        criticalExtensions          CHOICE {
            r4                              SEQUENCE {
                rrcConnectionRelease-r4     RRCConnectionRelease-r4-IEs,
                nonCriticalExtensions       SEQUENCE {}     OPTIONAL
            },
            criticalExtensions          SEQUENCE {}
        }
    }
}

RRCConnectionRelease-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier   RRC-TransactionIdentifier,
        -- n-308 is conditional on the UE state
        n-308                       N-308                           OPTIONAL,
        releaseCause                ReleaseCause,
        rplmn-information           Rplmn-Information               OPTIONAL
}

RRCConnectionRelease-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        -- n-308 is conditional on the UE state.
        n-308                       N-308                           OPTIONAL,
        releaseCause                ReleaseCause,
        rplmn-information           Rplmn-Information-r4            OPTIONAL
}

-- **************************************************
--
-- RRC CONNECTION RELEASE for CCCH
--
-- **************************************************

RRCConnectionRelease-CCCH ::= CHOICE {
    r3                              SEQUENCE {
        rrcConnectionRelease-CCCH-r3    RRCConnectionRelease-CCCH-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        u-RNTI                          U-RNTI,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                rrcConnectionRelease-CCCH-r4    RRCConnectionRelease-CCCH-r4-IEs,
                nonCriticalExtensions           SEQUENCE {}     OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
    }
}

RRCConnectionRelease-CCCH-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
```

```
        u-RNTI                          U-RNTI,
    -- The rest of the message is identical to the one sent on DCCH.
        rrcConnectionRelease            RRCConnectionRelease-r3-IEs
}

RRCConnectionRelease-CCCH-r4-IEs ::= SEQUENCE {
    -- The rest of the message is identical to the one sent on DCCH.
        rrcConnectionRelease            RRCConnectionRelease-r4-IEs
}

-- **************************************************
--
-- RRC CONNECTION RELEASE COMPLETE
--
-- **************************************************

RRCConnectionReleaseComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        errorIndication                 FailureCauseWithProtErr         OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- RRC CONNECTION REQUEST
--
-- **************************************************

RRCConnectionRequest ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- User equipment IEs
        initialUE-Identity              InitialUE-Identity,
        establishmentCause              EstablishmentCause,
        -- protocollErrorIndictator is MD, but for compactness reasons no default value
        -- has been assigned to it.
        protocolErrorIndicator          ProtocolErrorIndicator,
    -- Measurement IEs
        measuredResultsOnRACH           MeasuredResultsOnRACH           OPTIONAL,
        v4xyNonCriticalExtensions       SEQUENCE {
            rrcConnectionRequest-v4xyext        RRCConnectionRequest-v4xyext-IEs,
            -- Reserved for future non critical extension
            nonCriticalExtensions           SEQUENCE {}    OPTIONAL
        }   OPTIONAL
}

RRCConnectionRequest-v4xyext-IEs ::=    SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-v4xyext    UE-RadioAccessCapability-v4xyext
}

-- **************************************************
--
-- RRC CONNECTION SETUP
--
-- **************************************************

RRCConnectionSetup ::= CHOICE {
    r3                              SEQUENCE {
        rrcConnectionSetup-r3           RRCConnectionSetup-r3-IEs,
        v4xyNonCriticalExtensions       SEQUENCE {
            rrcConnectionSetup-v4xyext    RRCConnectionSetup-v4xyext-IEs,
        -- Extension mechanism for non- release99 information
            nonCriticalExtensions           SEQUENCE {}                 OPTIONAL
        }   OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        initialUE-Identity              InitialUE-Identity,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                rrcConnectionSetup-r4           RRCConnectionSetup-r4-IEs,
                nonCriticalExtensions           SEQUENCE {}    OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
    }
```

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```
}

RRCConnectionSetup-r3-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
    -- User equipment IEs
        initialUE-Identity          InitialUE-Identity,
        rrc-TransactionIdentifier   RRC-TransactionIdentifier,
        activationTime              ActivationTime              OPTIONAL,
        new-U-RNTI                  U-RNTI,
        new-c-RNTI                  C-RNTI                      OPTIONAL,
        rrc-StateIndicator          RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff  UTRAN-DRX-CycleLengthCoefficient,
        -- TABULAR: If capacityUpdateRequest is not present, the default value
        -- defined in 10.3.3.2 shall be used.
        capabilityUpdateRequirement CapabilityUpdateRequirement OPTIONAL,
    -- Radio bearer IEs
        srb-InformationSetupList    SRB-InformationSetupList2,
    -- Transport channel IEs
        ul-CommonTransChInfo        UL-CommonTransChInfo        OPTIONAL,
        -- NOTE: ul-AddReconfTransChInfoList should be optional in later versions of
        -- this message
        ul-AddReconfTransChInfoList UL-AddReconfTransChInfoList,
        dl-CommonTransChInfo        DL-CommonTransChInfo        OPTIONAL,
        -- NOTE: dl-AddReconfTransChInfoList should be optional in later versions
        -- of this message
        dl-AddReconfTransChInfoList DL-AddReconfTransChInfoList,
    -- Physical channel IEs
        frequencyInfo               FrequencyInfo               OPTIONAL,
        maxAllowedUL-TX-Power       MaxAllowedUL-TX-Power       OPTIONAL,
        ul-ChannelRequirement       UL-ChannelRequirement       OPTIONAL,
        dl-CommonInformation        DL-CommonInformation        OPTIONAL,
        dl-InformationPerRL-List    DL-InformationPerRL-List    OPTIONAL
}

RRCConnectionSetup-v4xyext-IEs ::= SEQUENCE {
        capabilityUpdateRequirement-r4-ext  CapabilityUpdateRequirement-r4-ext  OPTIONAL,
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                     SSDT-UL-r4                  OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE DL-InformationPerRL-List included in this message
        cell-id-PerRL-List          CellIdentity-PerRL-List     OPTIONAL
}

RRCConnectionSetup-r4-IEs ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
        activationTime              ActivationTime              OPTIONAL,
        new-U-RNTI                  U-RNTI,
        new-c-RNTI                  C-RNTI                      OPTIONAL,
        rrc-StateIndicator          RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff  UTRAN-DRX-CycleLengthCoefficient,
        -- TABULAR: If capabilityUpdateRequirements is not present, the default value
        -- defined in 10.3.3.2 shall be used.
        capabilityUpdateRequirement CapabilityUpdateRequirement-r4 OPTIONAL,
    -- Radio bearer IEs
        srb-InformationSetupList    SRB-InformationSetupList2,
    -- Transport channel IEs
        ul-CommonTransChInfo        UL-CommonTransChInfo        OPTIONAL,
        ul-AddReconfTransChInfoList UL-AddReconfTransChInfoList OPTIONAL,
        dl-CommonTransChInfo        DL-CommonTransChInfo-r4     OPTIONAL,
        dl-AddReconfTransChInfoList DL-AddReconfTransChInfoList OPTIONAL,
    -- Physical channel IEs
        frequencyInfo               FrequencyInfo               OPTIONAL,
        maxAllowedUL-TX-Power       MaxAllowedUL-TX-Power       OPTIONAL,
        ul-ChannelRequirement       UL-ChannelRequirement-r4    OPTIONAL,
        dl-CommonInformation        DL-CommonInformation-r4     OPTIONAL,
        dl-InformationPerRL-List    DL-InformationPerRL-List-r4 OPTIONAL
}

-- **************************************************
--
-- RRC CONNECTION SETUP COMPLETE
--
-- **************************************************

RRCConnectionSetupComplete ::= SEQUENCE {
    -- TABULAR: Integrity protection shall not be performed on this message.
```

```
    -- User equipment IEs
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
        startList                        STARTList,
        ue-RadioAccessCapability         UE-RadioAccessCapability          OPTIONAL,
    -- Other IEs
        ue-RATSpecificCapability         InterRAT-UE-RadioAccessCapabilityList   OPTIONAL,
    -- Non critical extensions
        v370NonCriticalExtensions        SEQUENCE {
            rrcConnectionSetupComplete-v370ext  RRCConnectionSetupComplete-v370ext,
            v380NonCriticalExtensions           SEQUENCE {
                rrcConnectionSetupComplete-v380ext  RRCConnectionSetupComplete-v380ext-IEs,
                -- Reserved for future non critical extension
                v3a0NonCriticalExtensions           SEQUENCE {
                    rrcConnectionSetupComplete-v3a0ext  RRCConnectionSetupComplete-v3a0ext,
                    v4xyNonCriticalExtensions           SEQUENCE {
                        rrcConnectionSetupComplete-v4xyext  RRCConnectionSetupComplete-v4xyext-IEs,
                        nonCriticalExtensions                SEQUENCE {}    OPTIONAL
                }            OPTIONAL
            }            OPTIONAL
        }            OPTIONAL
    }            OPTIONAL
}

RRCConnectionSetupComplete-v370ext ::= SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-v370ext    UE-RadioAccessCapability-v370ext    OPTIONAL
}

RRCConnectionSetupComplete-v380ext-IEs ::= SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-v380ext    UE-RadioAccessCapability-v380ext        OPTIONAL,
        dl-PhysChCapabilityFDD-v380ext      DL-PhysChCapabilityFDD-v380ext
}

RRCConnectionSetupComplete-v3a0ext ::= SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-v3a0ext    UE-RadioAccessCapability-v3a0ext    OPTIONAL
}

RRCConnectionSetupComplete-v4xyext-IEs ::= SEQUENCE {
    -- User equipment IEs
        ue-RadioAccessCapability-r4-ext     UE-RadioAccessCapability-r4-ext     OPTIONAL
}

-- **************************************************
--
-- RRC FAILURE INFO
--
-- **************************************************

RRC-FailureInfo ::= CHOICE {
    r3                                   SEQUENCE {
        rRC-FailureInfo-r3                   RRC-FailureInfo-r3-IEs,
        nonCriticalExtensions                SEQUENCE {} OPTIONAL
    },
    criticalExtensions                   SEQUENCE {}
}

RRC-FailureInfo-r3-IEs ::=    SEQUENCE {
    -- Non-RRC IEs
        failureCauseWithProtErr                      FailureCauseWithProtErr
}

-- **************************************************
--
-- RRC STATUS
--
-- **************************************************

RRCStatus ::= SEQUENCE {
    -- Other IEs
        -- TABULAR: Identification of received message is nested in
        -- ProtocolErrorMoreInformation
        protocolErrorInformation      ProtocolErrorMoreInformation,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions              SEQUENCE {}     OPTIONAL
}
```

```
-- **************************************************
--
-- SECURITY MODE COMMAND
--
-- **************************************************

SecurityModeCommand ::= CHOICE {
    r3                              SEQUENCE {
        securityModeCommand-r3          SecurityModeCommand-r3-IEs,
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

SecurityModeCommand-r3-IEs ::= SEQUENCE {
-- TABULAR: Integrity protection shall always be performed on this message.
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        securityCapability              SecurityCapability,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
    -- Core network IEs
        cn-DomainIdentity               CN-DomainIdentity,
    -- Other IEs
        ue-SystemSpecificSecurityCap    InterRAT-UE-SecurityCapList         OPTIONAL
}

-- **************************************************
--
-- SECURITY MODE COMPLETE
--
-- **************************************************

SecurityModeComplete ::= SEQUENCE {
-- TABULAR: Integrity protection shall always be performed on this message.

    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo         OPTIONAL,
    -- Radio bearer IEs
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList           OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- SECURITY MODE FAILURE
--
-- **************************************************

SecurityModeFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- SIGNALLING CONNECTION RELEASE
--
-- **************************************************

SignallingConnectionRelease ::= CHOICE {
    r3                              SEQUENCE {
        signallingConnectionRelease-r3  SignallingConnectionRelease-r3-IEs,
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}
```

```
SignallingConnectionRelease-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- Core network IEs
        cn-DomainIdentity               CN-DomainIdentity
}

-- **************************************************
--
-- SIGNALLING CONNECTION RELEASE INDICATION
--
-- **************************************************

SignallingConnectionReleaseIndication ::= SEQUENCE {
    -- Core network IEs
        cn-DomainIdentity               CN-DomainIdentity,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- SYSTEM INFORMATION for BCH
--
-- **************************************************

SystemInformation-BCH ::= SEQUENCE {
    -- Other information elements
        sfn-Prime                   SFN-Prime,
        payload                     CHOICE {
            noSegment                       NULL,
            firstSegment                    FirstSegment,
            subsequentSegment               SubsequentSegment,
            lastSegmentShort                    LastSegmentShort,
            lastAndFirst                    SEQUENCE {
                lastSegmentShort                LastSegmentShort,
                firstSegment                    FirstSegmentShort
            },
            lastAndComplete                 SEQUENCE {
                lastSegmentShort                LastSegmentShort,
                completeSIB-List                CompleteSIB-List
            },
            lastAndCompleteAndFirst         SEQUENCE {
                lastSegmentShort                LastSegmentShort,
                completeSIB-List                CompleteSIB-List,
                firstSegment                    FirstSegmentShort
            },
            completeSIB-List                CompleteSIB-List,
            completeAndFirst                SEQUENCE {
                completeSIB-List                CompleteSIB-List,
                firstSegment                    FirstSegmentShort
            },
            completeSIB                     CompleteSIB,
            lastSegment                     LastSegment,
            spare5                          NULL,
            spare4                          NULL,
            spare3                          NULL,
            spare2                          NULL,
            spare1                          NULL
        }
}

-- **************************************************
--
-- SYSTEM INFORMATION for FACH
--
-- **************************************************

SystemInformation-FACH ::= SEQUENCE {
    -- Other information elements
        payload                         CHOICE {
            noSegment                       NULL,
            firstSegment                    FirstSegment,
            subsequentSegment               SubsequentSegment,
            lastSegmentShort                LastSegmentShort,
            lastAndFirst                    SEQUENCE {
                lastSegmentShort                LastSegmentShort,
```

```
                firstSegment                     FirstSegmentShort
            },
            lastAndComplete               SEQUENCE {
                lastSegmentShort              LastSegmentShort,
                completeSIB-List              CompleteSIB-List
            },
            lastAndCompleteAndFirst       SEQUENCE {
                lastSegmentShort              LastSegmentShort,
                completeSIB-List              CompleteSIB-List,
                firstSegment                  FirstSegmentShort
            },
            completeSIB-List              CompleteSIB-List,
            completeAndFirst              SEQUENCE {
                completeSIB-List              CompleteSIB-List,
                firstSegment                  FirstSegmentShort
            },
            completeSIB                   CompleteSIB,
            lastSegment                   LastSegment,
            spare5                        NULL,
            spare4                        NULL,
            spare3                        NULL,
            spare2                        NULL,
            spare1                        NULL
        }
}

-- *************************************************
--
-- First segment
--
-- *************************************************

FirstSegment ::=                  SEQUENCE {
    -- Other information elements
        sib-Type                      SIB-Type,
        seg-Count                     SegCount,
        sib-Data-fixed                SIB-Data-fixed
}

-- *************************************************
--
-- First segment (short)
--
-- *************************************************

FirstSegmentShort ::=             SEQUENCE {
    -- Other information elements
        sib-Type                      SIB-Type,
        seg-Count                     SegCount,
        sib-Data-variable             SIB-Data-variable
}

-- *************************************************
--
-- Subsequent segment
--
-- *************************************************

SubsequentSegment ::=             SEQUENCE {
    -- Other information elements
        sib-Type                      SIB-Type,
        segmentIndex                  SegmentIndex,
        sib-Data-fixed                SIB-Data-fixed
}

-- *************************************************
--
-- Last segment
--
-- *************************************************

LastSegment ::=                   SEQUENCE {
    -- Other information elements
        sib-Type                      SIB-Type,
        segmentIndex                  SegmentIndex,
        -- For sib-Data-fixed, in case the SIB data is less than 222 bits, padding
        -- shall be used. The same padding bits shall be used as defined in clause 12.1
        sib-Data-fixed                SIB-Data-fixed
```

```
}

LastSegmentShort ::=                         SEQUENCE {
    -- Other information elements
        sib-Type                         SIB-Type,
        segmentIndex                     SegmentIndex,
        sib-Data-variable                SIB-Data-variable
}

-- **************************************************
--
-- Complete SIB
--
-- **************************************************

CompleteSIB-List ::=                 SEQUENCE (SIZE (1..maxSIBperMsg)) OF
                                            CompleteSIBshort

CompleteSIB ::=                      SEQUENCE {
    -- Other information elements
        sib-Type                         SIB-Type,
        -- For sib-Data-fixed, in case the SIB data is less than 226 bits, padding
        -- shall be used. The same padding bits shall be used as defined in clause 12.1
        sib-Data-fixed                   BIT STRING (SIZE (226))
}

CompleteSIBshort ::=                         SEQUENCE {
    -- Other information elements
        sib-Type                         SIB-Type,
        sib-Data-variable                SIB-Data-variable
}

-- **************************************************
--
-- SYSTEM INFORMATION CHANGE INDICATION
--
-- **************************************************

SystemInformationChangeIndication ::=   SEQUENCE {
    -- Other IEs
        bcch-ModificationInfo            BCCH-ModificationInfo,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions            SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- TRANSPORT CHANNEL RECONFIGURATION
--
-- **************************************************

TransportChannelReconfiguration ::= CHOICE {
    r3                                   SEQUENCE {
        transportChannelReconfiguration-r3
                                        TransportChannelReconfiguration-r3-IEs,
        v3a0NonCriticalExtensions        SEQUENCE {
            transportChannelReconfiguration-v3a0ext
                                        TransportChannelReconfiguration-v3a0ext,
            v4xyNonCriticalExtensions    SEQUENCE {
                transportChannelReconfiguration-v4xyext
                                        TransportChannelReconfiguration-v4xyext-IEs,
                nonCriticalExtensions    SEQUENCE {} OPTIONAL
            }       OPTIONAL
        }       OPTIONAL
    },
    later-than-r3                        SEQUENCE {
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
        criticalExtensions               CHOICE {
            r4                           SEQUENCE {
                transportChannelReconfiguration-r4
                                        TransportChannelReconfiguration-r4-IEs,
                nonCriticalExtensions    SEQUENCE {}    OPTIONAL
            },
            criticalExtensions           CHOICE {
                r5                       SEQUENCE {
                    transportChannelReconfiguration-r5
                                        TransportChannelReconfiguration-r5-IEs,
                    nonCriticalExtensions        SEQUENCE {}    OPTIONAL
```

```
            },
                criticalExtensions              SEQUENCE {}
            }
        }
    }
}

TransportChannelReconfiguration-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier        RRC-TransactionIdentifier,
        integrityProtectionModeInfo      IntegrityProtectionModeInfo        OPTIONAL,
        cipheringModeInfo                CipheringModeInfo                  OPTIONAL,
        activationTime                   ActivationTime                     OPTIONAL,
        new-U-RNTI                       U-RNTI                             OPTIONAL,
        new-C-RNTI                       C-RNTI                             OPTIONAL,
        rrc-StateIndicator               RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff       UTRAN-DRX-CycleLengthCoefficient   OPTIONAL,
    -- Core network IEs
        cn-InformationInfo               CN-InformationInfo                 OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                     URA-Identity                       OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo    DL-CounterSynchronisationInfo      OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo             UL-CommonTransChInfo               OPTIONAL,
        ul-AddReconfTransChInfoList      UL-AddReconfTransChInfoList        OPTIONAL,
        modeSpecificTransChInfo          CHOICE {
            fdd                              SEQUENCE {
                cpch-SetID                       CPCH-SetID                 OPTIONAL,
                addReconfTransChDRAC-Info        DRAC-StaticInformationList OPTIONAL
            },
            tdd                              NULL
        }                                                                   OPTIONAL,
        dl-CommonTransChInfo             DL-CommonTransChInfo               OPTIONAL,
        dl-AddReconfTransChInfoList      DL-AddReconfTransChInfoList        OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                    FrequencyInfo                      OPTIONAL,
        maxAllowedUL-TX-Power            MaxAllowedUL-TX-Power              OPTIONAL,
        ul-ChannelRequirement            UL-ChannelRequirement              OPTIONAL,
        modeSpecificPhysChInfo           CHOICE {
            fdd                              SEQUENCE {
                dl-PDSCH-Information              DL-PDSCH-Information        OPTIONAL
            },
            tdd                              NULL
        },
        dl-CommonInformation             DL-CommonInformation               OPTIONAL,
        dl-InformationPerRL-List         DL-InformationPerRL-List           OPTIONAL
}

TransportChannelReconfiguration-v3a0ext ::= SEQUENCE {
    new-DSCH-RNTI                        DSCH-RNTI                                       OPTIONAL
}

TransportChannelReconfiguration-v4xyext-IEs ::= SEQUENCE {
    -- Physical channel IEs
        -- ssdt-UL extends SSDT-Information, which is included in
        -- DL-CommonInformation. FDD only.
        ssdt-UL                          SSDT-UL-r4                                      OPTIONAL,
        -- The order of the RLs in IE cell-id-PerRL-List is the same as
        -- in IE DL-InformationPerRL-List included in this message
        cell-id-PerRL-List               CellIdentity-PerRL-List            OPTIONAL
}

TransportChannelReconfiguration-r4-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo      IntegrityProtectionModeInfo        OPTIONAL,
        cipheringModeInfo                CipheringModeInfo                  OPTIONAL,
        activationTime                   ActivationTime                     OPTIONAL,
        new-U-RNTI                       U-RNTI                             OPTIONAL,
        new-C-RNTI                       C-RNTI                             OPTIONAL,
        new-DSCH-RNTI                    DSCH-RNTI                          OPTIONAL,
        rrc-StateIndicator               RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff       UTRAN-DRX-CycleLengthCoefficient   OPTIONAL,
    -- Core network IEs
        cn-InformationInfo               CN-InformationInfo                 OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                     URA-Identity                       OPTIONAL,
    -- Radio bearer IEs
```

```
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,rb-WithPDCP-
InfoList             RB-WithPDCP-InfoList               OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo-r4             OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList         OPTIONAL,
        modeSpecificTransChInfo         CHOICE {
            fdd                             SEQUENCE {
                cpch-SetID                      CPCH-SetID                 OPTIONAL,
                addReconfTransChDRAC-Info       DRAC-StaticInformationList OPTIONAL
            },
            tdd                             NULL
        }                                                                  OPTIONAL,
        dl-CommonTransChInfo            DL-CommonTransChInfo-r4             OPTIONAL,
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfoList-r4      OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                      OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power              OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement-r4           OPTIONAL,
        modeSpecificPhysChInfo          CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information        OPTIONAL
            },
            tdd                             NULL
        },
        dl-CommonInformation            DL-CommonInformation-r4            OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List-r4        OPTIONAL
}

TransportChannelReconfiguration-r5-IEs ::= SEQUENCE {
    -- User equipment IEs
        integrityProtectionModeInfo     IntegrityProtectionModeInfo        OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                  OPTIONAL,
        activationTime                  ActivationTime                     OPTIONAL,
        new-U-RNTI                      U-RNTI                             OPTIONAL,
        new-C-RNTI                      C-RNTI                             OPTIONAL,
        new-DSCH-RNTI                   DSCH-RNTI                          OPTIONAL,
        new-H-RNTI                      H-RNTI                             OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient   OPTIONAL,
    -- Core network IEs
        cn-InformationInfo              CN-InformationInfo                 OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                       OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,rb-WithPDCP-
InfoList             RB-WithPDCP-InfoList               OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo            UL-CommonTransChInfo-r4             OPTIONAL,
        ul-AddReconfTransChInfoList     UL-AddReconfTransChInfoList         OPTIONAL,
        modeSpecificTransChInfo         CHOICE {
            fdd                             SEQUENCE {
                cpch-SetID                      CPCH-SetID                 OPTIONAL,
                addReconfTransChDRAC-Info       DRAC-StaticInformationList OPTIONAL
            },
            tdd                             NULL
        }                                                                  OPTIONAL,
        dl-CommonTransChInfo            DL-CommonTransChInfo-r4             OPTIONAL,
        dl-AddReconfTransChInfoList     DL-AddReconfTransChInfoList-r5      OPTIONAL,
    -- Physical channel IEs
        frequencyInfo                   FrequencyInfo                      OPTIONAL,
        maxAllowedUL-TX-Power           MaxAllowedUL-TX-Power              OPTIONAL,
        ul-ChannelRequirement           UL-ChannelRequirement-r5           OPTIONAL,
        modeSpecificPhysChInfo          CHOICE {
            fdd                             SEQUENCE {
                dl-PDSCH-Information             DL-PDSCH-Information        OPTIONAL
            },
            tdd                             NULL
        },
        dl-HSPDSCH-Information          DL-HSPDSCH-Information              OPTIONAL,
        dl-CommonInformation            DL-CommonInformation-r4            OPTIONAL,
        dl-InformationPerRL-List        DL-InformationPerRL-List-r5        OPTIONAL
}

-- **************************************************
--
-- TRANSPORT CHANNEL RECONFIGURATION COMPLETE
--
-- **************************************************
```

```
TransportChannelReconfigurationComplete ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo        OPTIONAL,
        -- TABULAR: UL-TimingAdvance is applicable for TDD mode only.
        ul-TimingAdvance                UL-TimingAdvance                   OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime          ActivationTime                     OPTIONAL,
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList          OPTIONAL,
        ul-CounterSynchronisationInfo   UL-CounterSynchronisationInfo      OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- TRANSPORT CHANNEL RECONFIGURATION FAILURE
--
-- **************************************************

TransportChannelReconfigurationFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

-- **********************************************************
--
-- TRANSPORT FORMAT COMBINATION CONTROL in AM or UM RLC mode
--
-- **********************************************************

TransportFormatCombinationControl ::= SEQUENCE {
        -- rrc-TransactionIdentifier is always included in this message
        rrc-TransactionIdentifier       RRC-TransactionIdentifier          OPTIONAL,
        modeSpecificInfo                        CHOICE {
            fdd                                 NULL,
            tdd                                 SEQUENCE {
                tfcs-ID                             TFCS-Identity   OPTIONAL
            }
        },
        dpch-TFCS-InUplink              TFC-Subset,
        activationTimeForTFCSubset      ActivationTime                     OPTIONAL,
        tfc-ControlDuration             TFC-ControlDuration                OPTIONAL,
        -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- TRANSPORT FORMAT COMBINATION CONTROL FAILURE
--
-- **************************************************

TransportFormatCombinationControlFailure ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

-- **************************************************
--
-- UE CAPABILITY ENQUIRY
--
-- **************************************************

UECapabilityEnquiry ::= CHOICE {
    r3                              SEQUENCE {
        ueCapabilityEnquiry-r3          UECapabilityEnquiry-r3-IEs,
        v4xyNonCriticalExtensions       SEQUENCE {
            ueCapabilityEnquiry-v4xyext     UECapabilityEnquiry-v4xyext-IEs,
            nonCriticalExtensions           SEQUENCE {}                    OPTIONAL
        }       OPTIONAL
```

```
    },
    later-than-r3                      SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

UECapabilityEnquiry-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
    rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    capabilityUpdateRequirement     CapabilityUpdateRequirement
}

UECapabilityEnquiry-v4xyext-IEs ::= SEQUENCE {
    capabilityUpdateRequirement-r4-ext  CapabilityUpdateRequirement-r4-ext
}

-- ***************************************************
--
-- UE CAPABILITY INFORMATION
--
-- ***************************************************

UECapabilityInformation ::= SEQUENCE {
    -- User equipment IEs
    rrc-TransactionIdentifier       RRC-TransactionIdentifier           OPTIONAL,
    ue-RadioAccessCapability        UE-RadioAccessCapability            OPTIONAL,
    -- Other IEs
    ue-RATSpecificCapability        InterRAT-UE-RadioAccessCapabilityList
    OPTIONAL,
        v370NonCriticalExtensions           SEQUENCE {
            ueCapabilityInformation-v370ext UECapabilityInformation-v370ext,
            v380NonCriticalExtensions           SEQUENCE {
                ueCapabilityInformation-v380ext     UECapabilityInformation-v380ext-IEs,
                v3a0NonCriticalExtensions           SEQUENCE {
                    ueCapabilityInformation-v3a0ext     UECapabilityInformation-v3a0ext,
                    -- Reserved for future non critical extension
                    v4xyNonCriticalExtensions           SEQUENCE {
                        ueCapabilityInformation-v4xyext     UECapabilityInformation-v4xyext,
                        v5xyNonCriticalExtensions           SEQUENCE {
                            ueCapabilityInformation-v5xyext UECapabilityInformation-v5xyext,
                            nonCriticalExtensions               SEQUENCE {}     OPTIONAL
                        }       OPTIONAL
                    }       OPTIONAL
                }       OPTIONAL
            }       OPTIONAL
        }       OPTIONAL
}

UECapabilityInformation-v370ext::= SEQUENCE {
    -- User equipment IEs
    ue-RadioAccessCapability-v370ext        UE-RadioAccessCapability-v370ext        OPTIONAL
}

UECapabilityInformation-v380ext-IEs ::= SEQUENCE {
    -- User equipment IEs
    ue-RadioAccessCapability-v380ext        UE-RadioAccessCapability-v380ext
    OPTIONAL,
    dl-PhysChCapabilityFDD-v380ext          DL-PhysChCapabilityFDD-v380ext
}

UECapabilityInformation-v3a0ext::= SEQUENCE {
    -- User equipment IEs
    ue-RadioAccessCapability-v3a0ext        UE-RadioAccessCapability-v3a0ext        OPTIONAL
}

UECapabilityInformation-v4xyext ::= SEQUENCE {
    -- User equipment IEs
    ue-RadioAccessCapability-r4-ext     UE-RadioAccessCapability-r4-ext     OPTIONAL,
    ue-RadioAccessCapability-v4xyext    UE-RadioAccessCapability-v4xyext
}

UECapabilityInformation-v5xyext ::= SEQUENCE {
    -- User equipment IEs
    ue-RadioAccessCapability-r5-ext     UE-RadioAccessCapability-r5-ext     OPTIONAL
}

-- ***************************************************
```

```
--
-- UE CAPABILITY INFORMATION CONFIRM
--
-- **************************************************

UECapabilityInformationConfirm ::= CHOICE {
    r3                              SEQUENCE {
        ueCapabilityInformationConfirm-r3
                                        UECapabilityInformationConfirm-r3-IEs,
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

UECapabilityInformationConfirm-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier
}

-- **************************************************
--
-- UPLINK DIRECT TRANSFER
--
-- **************************************************

UplinkDirectTransfer ::= SEQUENCE {
    -- Core network IEs
        cn-DomainIdentity               CN-DomainIdentity,
        nas-Message                     NAS-Message,
    -- Measurement IEs
        measuredResultsOnRACH           MeasuredResultsOnRACH              OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- UPLINK PHYSICAL CHANNEL CONTROL
--
-- **************************************************

UplinkPhysicalChannelControl ::= CHOICE {
    r3                              SEQUENCE {
        uplinkPhysicalChannelControl-r3 UplinkPhysicalChannelControl-r3-IEs,
        v4xyNonCriticalExtensions       SEQUENCE {
            uplinkPysicalChannelControl-v4xyext    UplinkPhysicalChannelControl-v4xyext-IEs,
            -- Extension mechanism for non- release4 information
            noncriticalExtensions           SEQUENCE {}                      OPTIONAL
        }    OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              CHOICE {
            r4                              SEQUENCE {
                uplinkPhysicalChannelControl-r4 UplinkPhysicalChannelControl-r4-IEs,
                nonCriticalExtensions           SEQUENCE {} OPTIONAL
            },
            criticalExtensions              SEQUENCE {}
        }
    }
}

UplinkPhysicalChannelControl-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
    -- Physical channel IEs
        ccTrCH-PowerControlInfo         CCTrCH-PowerControlInfo             OPTIONAL,
        timingAdvance                   UL-TimingAdvanceControl             OPTIONAL,
        alpha                           Alpha                              OPTIONAL,
        specialBurstScheduling          SpecialBurstScheduling             OPTIONAL,
        prach-ConstantValue             ConstantValueTdd                   OPTIONAL,
        pusch-ConstantValue             ConstantValueTdd                   OPTIONAL
}

UplinkPhysicalChannelControl-v4xyext-IEs ::= SEQUENCE {
```

```
    -- In case of TDD, openLoopPowerControl-IPDL-TDD is included instead of IE
    -- up-IPDL-Parameters in up-OTDOA-AssistanceData
    openLoopPowerControl-IPDL-TDD   OpenLoopPowerControl-IPDL-TDD-r4    OPTIONAL
}

UplinkPhysicalChannelControl-r4-IEs ::= SEQUENCE {
    -- Physical channel IEs
        ccTrCH-PowerControlInfo         CCTrCH-PowerControlInfo-r4              OPTIONAL,
        tddOption                       CHOICE {
            tdd384                          SEQUENCE {
                timingAdvance                   UL-TimingAdvanceControl-r4 OPTIONAL,
                alpha                           Alpha                      OPTIONAL,
                prach-ConstantValue             ConstantValueTdd           OPTIONAL,
                pusch-ConstantValue             ConstantValueTdd           OPTIONAL,
                openLoopPowerControl-IPDL-TDD   OpenLoopPowerControl-IPDL-TDD-r4    OPTIONAL
            },
            tdd128                          SEQUENCE {
                ul-SynchronisationParameters    UL-SynchronisationParameters-r4 OPTIONAL
            }
        }
}

-- **************************************************
--
-- URA UPDATE
--
-- **************************************************

URAUpdate ::= SEQUENCE {
    -- User equipment IEs
        u-RNTI                          U-RNTI,
        ura-UpdateCause                 URA-UpdateCause,
        protocolErrorIndicator          ProtocolErrorIndicatorWithMoreInfo,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

-- **************************************************
--
-- URA UPDATE CONFIRM
--
-- **************************************************

URAUpdateConfirm ::= CHOICE {
    r3                              SEQUENCE {
        uraUpdateConfirm-r3             URAUpdateConfirm-r3-IEs,
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

URAUpdateConfirm-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo             OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                       OPTIONAL,
        new-U-RNTI                      U-RNTI                                  OPTIONAL,
        new-C-RNTI                      C-RNTI                                  OPTIONAL,
        rrc-StateIndicator              RRC-StateIndicator,
        utran-DRX-CycleLengthCoeff      UTRAN-DRX-CycleLengthCoefficient        OPTIONAL,
    -- CN information elements
        cn-InformationInfo              CN-InformationInfo                      OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                            OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo           OPTIONAL
}

-- **************************************************
--
-- URA UPDATE CONFIRM for CCCH
--
-- **************************************************

URAUpdateConfirm-CCCH ::= CHOICE {
```

```
    r3                              SEQUENCE {
        uraUpdateConfirm-CCCH-r3     URAUpdateConfirm-CCCH-r3-IEs,
        nonCriticalExtensions       SEQUENCE {}    OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        u-RNTI                          U-RNTI,
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

URAUpdateConfirm-CCCH-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        u-RNTI                      U-RNTI,
    -- The rest of the message is identical to the one sent on DCCH.
        uraUpdateConfirm            URAUpdateConfirm-r3-IEs
}

-- **************************************************
--
-- UTRAN MOBILITY INFORMATION
--
-- **************************************************

UTRANMobilityInformation ::= CHOICE {
    r3                              SEQUENCE {
        utranMobilityInformation-r3     UTRANMobilityInformation-r3-IEs,
        v3a0NonCriticalExtensions       SEQUENCE {
            utranMobilityInformation-v3a0ext   UTRANMobilityInformation-v3a0ext-IEs,
            nonCriticalExtensions              SEQUENCE {} OPTIONAL
        }       OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

UTRANMobilityInformation-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        integrityProtectionModeInfo     IntegrityProtectionModeInfo         OPTIONAL,
        cipheringModeInfo               CipheringModeInfo                   OPTIONAL,
        new-U-RNTI                      U-RNTI                              OPTIONAL,
        new-C-RNTI                      C-RNTI                              OPTIONAL,
        ue-ConnTimersAndConstants       UE-ConnTimersAndConstants           OPTIONAL,
    -- CN information elements
        cn-InformationInfo              CN-InformationInfoFull              OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity                    URA-Identity                        OPTIONAL,
    -- Radio bearer IEs
        dl-CounterSynchronisationInfo   DL-CounterSynchronisationInfo       OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}

UTRANMobilityInformation-v3a0ext-IEs ::= SEQUENCE {
    ue-ConnTimersAndConstants-v3a0ext       UE-ConnTimersAndConstants-v3a0ext
}

-- **************************************************
--
-- UTRAN MOBILITY INFORMATION CONFIRM
--
-- **************************************************

UTRANMobilityInformationConfirm ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        ul-IntegProtActivationInfo      IntegrityProtActivationInfo         OPTIONAL,
    -- Radio bearer IEs
        count-C-ActivationTime          ActivationTime                      OPTIONAL,
        rb-UL-CiphActivationTimeInfo    RB-ActivationTimeInfoList           OPTIONAL,
        ul-CounterSynchronisationInfo   UL-CounterSynchronisationInfo       OPTIONAL,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}    OPTIONAL
}
```

```
-- **************************************************
--
-- UTRAN MOBILITY INFORMATION FAILURE
--
-- **************************************************

UTRANMobilityInformationFailure ::= SEQUENCE {
    -- UE information elements
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        failureCause                    FailureCauseWithProtErr,
    -- Extension mechanism for non- release99 information
        nonCriticalExtensions           SEQUENCE {}     OPTIONAL
}

END
```