

TSG-RAN Meeting #24
Seoul, Korea, 02-04 June 2004

RP-040207

Title: CRs to 25.331 (2) (Rel-4 and associated Rel-5/Rel-6)

Source: TSG-RAN WG2

Agenda item: 7.3.4

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Workitem	Doc-2nd-Level
25.331	2309	-	Rel-4	ASN.1 correction leftovers	F	4.13.0	4.14.0	TEI4	R2-041128
25.331	2310	-	Rel-5	ASN.1 correction leftovers	F	5.8.0	5.9.0	TEI5	R2-041129
25.331	2311	-	Rel-6	ASN.1 correction leftovers	A	6.1.0	6.2.0	TEI5	R2-041130
25.331	2352	-	Rel-4	Incorrect presence of UE-RadioAccessCapability extension in RRC CONNECTION SETUP COMPLETE	F	4.13.0	4.14.0	TEI4	R2-041134
25.331	2315	-	Rel-5	Incorrect presence of UE-RadioAccessCapability extension in RRC CONNECTION SETUP COMPLETE	F	5.8.0	5.9.0	TEI5	R2-041135
25.331	2316	-	Rel-6	Incorrect presence of UE-RadioAccessCapability extension in RRC CONNECTION SETUP COMPLETE	A	6.1.0	6.2.0	TEI5	R2-041136
25.331	2321	-	Rel-4	Clean up of SRNS Relocation Info REL-4 version	F	4.13.0	4.14.0	TEI4	R2-041141
25.331	2322	-	Rel-5	Clean up of SRNS Relocation Info REL-5 version	F	4.13.0	4.14.0	TEI5	R2-041142
25.331	2323	-	Rel-6	Clean up of SRNS Relocation Info REL-5 version	A	4.13.0	4.14.0	TEI5	R2-041143
25.331	2330	-	Rel-4	Correction to IE "Cell Info"	F	4.13.0	4.14.0	TEI4	R2-041161
25.331	2331	-	Rel-5	Correction to IE "Cell Info"	A	5.8.0	5.9.0	TEI4	R2-041162
25.331	2332	-	Rel-6	Correction to IE "Cell Info"	A	6.1.0	6.2.0	TEI4	R2-041163

CR-Form-v7

CHANGE REQUEST

25.331 **CR 2309** # rev **-** # Current version: **4.13.0**

For [HELP](#) on using this form, see bottom of this page or look at the pop-up text over the # symbols.

Proposed change affects: UICC apps# ME Radio Access Network Core Network

Title:	# ASN.1 correction leftovers		
Source:	# RAN WG2		
Work item code:	# TEI4	Date:	# May/2004
Category:	# F	Release:	# Rel-4
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	# Some ASN.1 errors were detected in the Mar/2004 version of ASN.1: 1) "cellUpdateConfirm-r4-add-ext" is missing "-CCCH" from the name (<u>this problem does not exist for Rel-5 & Rel-6 versions of the specification</u>). 2) A VLEC was erroneously introduced in the r4 branch of the HandoverToUTRANCommand message. When this was discussed in R99, it was decided not to introduce it. 3) Incorrect naming of sRNC-RelocationInfo-v4c0ext in SRNC-RelocationInfo-r3
Summary of change:	# 1) Corrected "cellUpdateConfirm-r4-add-ext" to "cellUpdateConfirm-CCCH-r4-add-ext" 2) Removed the VLEC from the r4 branch of the HandoverToUTRANCommand message 3) Renamed sRNC-RelocationInfo-v4d0ext to sRNC-RelocationInfo-v4d0ext in SRNC-RelocationInfo-r3
Consequences if not approved:	# A naming inconsistency will remain in ASN.1 and VLECs will unnecessarily be present in the r4/r5 branches of HandoverToUTRANcommand message Isolated Impact Analysis: The naming change is backwards compatible and it does not affect UE/UTRAN. The change to HandoverToUTRANCommand is not backwards compatible, but it will only affect a UE/UTRAN that is using the r4 branch of the HandoverToUTRANCommand message according to Mar04 ASN.1 (it will not affect previous versions).

Clauses affected:	# 11.2, 11.5
	<input type="checkbox"/> Y <input type="checkbox"/> N

Other specs affected:	⌘	<input checked="" type="checkbox"/>	Other core specifications	⌘	
		<input checked="" type="checkbox"/>	Test specifications		
		<input checked="" type="checkbox"/>	O&M Specifications		
Other comments:	⌘				

How to create CRs using this form:

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

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

11.2 PDU definitions

```
[...]
-- *****
--
-- CELL UPDATE CONFIRM for CCCH
--
-- *****

CellUpdateConfirm-CCCH ::= CHOICE {
  r3
    -- 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,
    laterNonCriticalExtensions SEQUENCE {
      -- Container for additional R99 extensions
      cellUpdateConfirm-CCCH-r3-add-ext BIT STRING OPTIONAL,
      v4b0NonCriticalExtensions SEQUENCE {
        cellUpdateConfirm-v4b0ext CellUpdateConfirm-v4b0ext-IEs,
        nonCriticalExtensions SEQUENCE {} OPTIONAL
      } OPTIONAL
    } OPTIONAL
  },
  later-than-r3 SEQUENCE {
    u-RNTI U-RNTI,
    rrc-TransactionIdentifier RRC-TransactionIdentifier,
    criticalExtensions CHOICE {
      r4
        -- The rest of the message is identical to the one sent on DCCH.
        cellUpdateConfirm-r4 CellUpdateConfirm-r4-IEs,
        v4d0NonCriticalExtensions SEQUENCE {
          -- Container for adding non critical extensions after freezing REL-5
          cellUpdateConfirm-CCCH-r4-add-ext BIT STRING OPTIONAL,
          nonCriticalExtensions SEQUENCE {} OPTIONAL
        } OPTIONAL
      },
      criticalExtensions SEQUENCE {}
    }
  }
}

```

[...]

```
HandoverToUTRANCommand ::= CHOICE {
  r3
    SEQUENCE {
      handoverToUTRANCommand-r3 HandoverToUTRANCommand-r3-IEs,
      nonCriticalExtensions SEQUENCE {} OPTIONAL
    },
    criticalExtensions CHOICE {
      r4
        SEQUENCE {
          handoverToUTRANCommand-r4 HandoverToUTRANCommand-r4-IEs,
          v4d0NonCriticalExtensions SEQUENCE {
          -- Container for adding non critical extensions after freezing REL-5
          handoverToUTRANCommand-r4-add-ext BIT STRING OPTIONAL,
          nonCriticalExtensions SEQUENCE {} OPTIONAL
          } OPTIONAL
        },
        criticalExtensions SEQUENCE {}
      }
    }
}

```

[...]

11.5 RRC information between network nodes

[...]

```

-- *****
--
-- SRNC Relocation information
--
-- *****

SRNC-RelocationInfo-r3 ::= CHOICE {
  r3          SEQUENCE {
    SRNC-RelocationInfo-r3          SRNC-RelocationInfo-r3-IEs,
    v380NonCriticalExtensions        SEQUENCE {
      SRNC-RelocationInfo-v380ext    SRNC-RelocationInfo-v380ext-IEs,
      -- Reserved for future non critical extension
      v390NonCriticalExtensions      SEQUENCE {
        SRNC-RelocationInfo-v390ext  SRNC-RelocationInfo-v390ext-IEs,
        v3a0NonCriticalExtensions    SEQUENCE {
          SRNC-RelocationInfo-v3a0ext SRNC-RelocationInfo-v3a0ext-IEs,
          v3b0NonCriticalExtensions  SEQUENCE {
            SRNC-RelocationInfo-v3b0ext SRNC-RelocationInfo-v3b0ext-IEs,
            v3c0NonCriticalExtensions  SEQUENCE {
              SRNC-RelocationInfo-v3c0ext SRNC-RelocationInfo-v3c0ext-IEs,
              laterNonCriticalExtensions SEQUENCE {
                SRNC-RelocationInfo-v3d0ext SRNC-RelocationInfo-v3d0ext-IEs,
                -- Container for additional R99 extensions
                SRNC-RelocationInfo-r3-add-ext BIT STRING
                (CONTAINING SRNC-RelocationInfo-v3h0ext-IEs) OPTIONAL,
                v3g0NonCriticalExtensions SEQUENCE {
                  SRNC-RelocationInfo-v3g0ext SRNC-RelocationInfo-v3g0ext-IEs,
                  v4b0NonCriticalExtensions SEQUENCE {
                    SRNC-RelocationInfo-v4b0ext SRNC-RelocationInfo-v4b0ext-IEs,
                    -- Reserved for future non critical extension
                    nonCriticalExtensions SEQUENCE {} OPTIONAL
                  } OPTIONAL
                } OPTIONAL
              } OPTIONAL
            } OPTIONAL
          } OPTIONAL
        } OPTIONAL
      } OPTIONAL
    } OPTIONAL
  },
  later-than-r3 CHOICE {
    r4          SEQUENCE {
      SRNC-RelocationInfo          SRNC-RelocationInfo-r4-IEs,
      v4d0NonCriticalExtensions 4 SEQUENCE {
        SRNC-RelocationInfo-v4ed0ext SRNC-RelocationInfo-v4ed0ext-IEs,
        -- Container for adding non critical extensions after freezing REL-5
        SRNC-RelocationInfo-r4-add-ext BIT STRING OPTIONAL,
        nonCriticalExtensions        SEQUENCE {} OPTIONAL
      } OPTIONAL
    },
    criticalExtensions SEQUENCE {}
  }
}

SRNC-RelocationInfo-v3h0ext-IEs ::= SEQUENCE {
  tpc-CombinationInfoList TPC-CombinationInfoList OPTIONAL,
  nonCriticalExtension    SEQUENCE {} OPTIONAL
}

SRNC-RelocationInfo-v4ed0ext-IEs ::= SEQUENCE {
  tpc-CombinationInfoList TPC-CombinationInfoList OPTIONAL
}

TPC-CombinationInfoList ::= SEQUENCE (SIZE (1..maxRL)) OF
  TPC-Combination-Info

```

CR-Form-v7

CHANGE REQUEST

25.331 CR 2310 # rev - # Current version: 5.8.0

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	# ASN.1 correction leftovers		
Source:	# RAN WG2		
Work item code:	# TEI5	Date:	# May/2004
Category:	# F	Release:	# Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2	(GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R96	(Release 1996)
	B (addition of feature),	R97	(Release 1997)
	C (functional modification of feature)	R98	(Release 1998)
	D (editorial modification)	R99	(Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-4	(Release 4)
		Rel-5	(Release 5)
		Rel-6	(Release 6)

Reason for change:	# Some ASN.1 errors were detected in the Mar/2004 version of ASN.1: 1) SRNC-RelocationInfo-v4c0ext should be SRNC-RelocationInfo-v4d0ext. 2) A VLEC was erroneously introduced in the r4 & r5 branches of the HandoverToUTRANCommand message. When this was discussed in R99, it was decided not to introduce it. 3) A VLEC is missing from the r5 branch of CellUpdateConfirm-CCCH
Summary of change:	# 1) Corrected SRNC-RelocationInfo-v4c0ext to SRNC-RelocationInfo-v4d0ext. 2) Removed the VLEC from the r4 and r5 branches of the HandoverToUTRANCommand message 3) Added VLEC to the r5 branch of CellUpdateConfirm-CCCH
Consequences if not approved:	# A naming inconsistency will remain in ASN.1 and VLECs will unnecessarily be present in the r4/r5 branches of HandoverToUTRANcommand message Isolated Impact Analysis: The naming change is backwards compatible and it does not affect UE/UTRAN. The change to HandoverToUTRANCommand is not backwards compatible, but it will only affect a UE/UTRAN that is using the r4/r5 branch of the HandoverToUTRANCommand message according to Mar04 ASN.1 (it will not affect previous versions).

Clauses affected:	# 11.2								
Other specs affected:	#								
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> </tr> <tr> <td></td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications # Test specifications # O&M Specifications #	Y	N	#	X		X		X
Y	N								
#	X								
	X								
	X								

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.

11.2 PDU definitions

```
[...]
-- *****
--
-- 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,
    laterNonCriticalExtensions SEQUENCE {
      -- Container for additional R99 extensions
      cellUpdateConfirm-CCCH-r3-add-ext BIT STRING OPTIONAL,
      v4b0NonCriticalExtensions SEQUENCE {
        cellUpdateConfirm-v4b0ext CellUpdateConfirm-v4b0ext-IEs,
        v5xyNonCriticalExtensions SEQUENCE {
          cellUpdateConfirm-v5xyext CellUpdateConfirm-v5xyext-IEs,
          nonCriticalExtensions SEQUENCE {} OPTIONAL
        } OPTIONAL
      } 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,
        v4d0NonCriticalExtensions SEQUENCE {
          -- Container for adding non critical extensions after freezing REL-5
          cellUpdateConfirm-CCCH-r4-add-ext BIT STRING OPTIONAL,
          v5xyNonCriticalExtensions SEQUENCE {
            cellUpdateConfirm-v5xyext CellUpdateConfirm-v5xyext-IEs,
            nonCriticalExtensions SEQUENCE {} OPTIONAL
          } OPTIONAL
        } OPTIONAL
      },
      criticalExtensions CHOICE {
        r5 SEQUENCE {
          cellUpdateConfirm-r5 CellUpdateConfirm-r5-IEs,
          cellUpdateConfirm-CCCH-r5-add-ext BIT STRING OPTIONAL,
          nonCriticalExtensions SEQUENCE {} OPTIONAL
        },
        criticalExtensions SEQUENCE {}
      }
    }
  }
}

```

[...]

```
HandoverToUTRANCommand ::= CHOICE {
  r3 SEQUENCE {
    handoverToUTRANCommand-r3 HandoverToUTRANCommand-r3-IEs,
    nonCriticalExtensions SEQUENCE {} OPTIONAL
  },
  criticalExtensions CHOICE {
    r4 SEQUENCE {
      handoverToUTRANCommand-r4 HandoverToUTRANCommand-r4-IEs,
      v4d0NonCriticalExtensions SEQUENCE {
      Container for adding non critical extensions after freezing REL-5
      handoverToUTRANCommand-r4-add-ext BIT STRING OPTIONAL,
      nonCriticalExtensions SEQUENCE {} OPTIONAL
      } OPTIONAL
    },
    criticalExtensions CHOICE {
```



```

    r5
      handoverToUTRANCommand-r5 SEQUENCE {
        Container for adding non critical extensions after freezing REL-6
        handoverToUTRANCommand-r5-add-ext BIT STRING OPTIONAL,
        nonCriticalExtensions SEQUENCE {} OPTIONAL
      },
      criticalExtensions SEQUENCE {}
    }
  }
}
[...]
```

11.5 RRC information between network nodes

[...]

```

-- *****
--
-- SRNC Relocation information
--
-- *****

SRNC-RelocationInfo-r3 ::= CHOICE {
  r3
    SEQUENCE {
      sRNC-RelocationInfo-r3 SRNC-RelocationInfo-r3-IEs,
      v380NonCriticalExtensions SEQUENCE {
        sRNC-RelocationInfo-v380ext SRNC-RelocationInfo-v380ext-IEs,
        -- Reserved for future non critical extension
      },
      v390NonCriticalExtensions SEQUENCE {
        sRNC-RelocationInfo-v390ext SRNC-RelocationInfo-v390ext-IEs,
        v3a0NonCriticalExtensions SEQUENCE {
          sRNC-RelocationInfo-v3a0ext SRNC-RelocationInfo-v3a0ext-IEs,
          v3b0NonCriticalExtensions SEQUENCE {
            sRNC-RelocationInfo-v3b0ext SRNC-RelocationInfo-v3b0ext-IEs,
            v3c0NonCriticalExtensions SEQUENCE {
              sRNC-RelocationInfo-v3c0ext SRNC-RelocationInfo-v3c0ext-IEs,
              laterNonCriticalExtensions SEQUENCE {
                sRNC-RelocationInfo-v3d0ext SRNC-RelocationInfo-v3d0ext-
                IEs,
                -- Container for additional R99 extensions
                sRNC-RelocationInfo-r3-add-ext BIT STRING
                (CONTAINING SRNC-RelocationInfo-v3h0ext-IEs) OPTIONAL,
                v3g0NonCriticalExtensions SEQUENCE {
                  sRNC-RelocationInfo-v3g0ext SRNC-RelocationInfo-v3g0ext-IEs,
                  v4b0NonCriticalExtensions SEQUENCE {
                    sRNC-RelocationInfo-v4b0ext SRNC-RelocationInfo-v4b0ext-IEs,
                    v5xyNonCriticalExtensions SEQUENCE {
                      sRNC-RelocationInfo-v5xyext SRNC-
                      RelocationInfo-v5xyext-IEs,
                      -- Reserved for future non critical extension
                      nonCriticalExtensions SEQUENCE {} OPTIONAL
                    }
                  } OPTIONAL
                } OPTIONAL
              } OPTIONAL
            } OPTIONAL
          } OPTIONAL
        } OPTIONAL
      } OPTIONAL
    } OPTIONAL
  },
  later-than-r3
    CHOICE {
      r4
        SEQUENCE {
          sRNC-RelocationInfo-r4 SRNC-RelocationInfo-r4-IEs,
          v4d0NonCriticalExtensions SEQUENCE {
            sRNC-RelocationInfo-v4ed0ext SRNC-RelocationInfo-v4ed0ext-IEs,
            -- Container for adding non critical extensions after freezing REL-5
            sRNC-RelocationInfo-r4-add-ext BIT STRING OPTIONAL,
            v5xyNonCriticalExtensions SEQUENCE {
              sRNC-RelocationInfo-v5xyext SRNC-RelocationInfo-v5xyext-IEs,
              nonCriticalExtensions SEQUENCE {} OPTIONAL
            } OPTIONAL
          } OPTIONAL
        } OPTIONAL
      }
    }
  },
}
```

```

        criticalExtensions          SEQUENCE {}
    }
}
[...]
```

SRNC-RelocationInfo-v3h0ext-IEs ::= SEQUENCE {

tpc-CombinationInfoList	TPC-CombinationInfoList	OPTIONAL,
nonCriticalExtension	SEQUENCE {}	OPTIONAL

}

| SRNC-RelocationInfo-v4ed0ext-IEs ::= SEQUENCE {

tpc-CombinationInfoList	TPC-CombinationInfoList	OPTIONAL
-------------------------	-------------------------	----------

}

TPC-CombinationInfoList ::= SEQUENCE (SIZE (1..maxRL)) OF
 TPC-Combination-Info

CR-Form-v7

CHANGE REQUEST

25.331 CR 2311 # rev - # Current version: 6.1.0

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	# ASN.1 correction leftovers		
Source:	# RAN WG2		
Work item code:	# TEI5	Date:	# May/2004
Category:	# A	Release:	# Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	# Some ASN.1 errors were detected in the Mar/2004 version of ASN.1: 1) SRNC-RelocationInfo-v4c0ext should be SRNC-RelocationInfo-v4d0ext. 2) A VLEC was erroneously introduced in the r4 & r5 branches of the HandoverToUTRANCommand message. When this was discussed in R99, it was decided not to introduce it. 3) A VLEC is missing from the r5 branch of CellUpdateConfirm-CCCH
Summary of change:	# 1) Corrected SRNC-RelocationInfo-v4c0ext to SRNC-RelocationInfo-v4d0ext. 2) Removed the VLEC from the r4 and r5 branches of the HandoverToUTRANCommand message 3) Added VLEC to the r5 branch of CellUpdateConfirm-CCCH
Consequences if not approved:	# A naming inconsistency will remain in ASN.1 and VLECs will unnecessarily be present in the r4/r5 branches of HandoverToUTRANcommand message Isolated Impact Analysis: The naming change is backwards compatible and it does not affect UE/UTRAN. The change to HandoverToUTRANCommand is not backwards compatible, but it will only affect a UE/UTRAN that is using the r4/r5 branch of the HandoverToUTRANCommand message according to Mar04 ASN.1 (it will not affect previous versions).

Clauses affected:	# 11.2				
Other specs affected:	#				
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications	Y	N	#	X
Y	N				
#	X				
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> </table> Test specifications	#	X		
#	X				
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> </table> O&M Specifications	#	X		
#	X				

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.

11.2 PDU definitions

```
[...]
-- *****
--
-- 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,
    laterNonCriticalExtensions SEQUENCE {
      -- Container for additional R99 extensions
      cellUpdateConfirm-CCCH-r3-add-ext BIT STRING OPTIONAL,
      v4b0NonCriticalExtensions SEQUENCE {
        cellUpdateConfirm-v4b0ext CellUpdateConfirm-v4b0ext-IEs,
        v5xyNonCriticalExtensions SEQUENCE {
          cellUpdateConfirm-v5xyext CellUpdateConfirm-v5xyext-IEs,
          nonCriticalExtensions SEQUENCE {} OPTIONAL
        } OPTIONAL
      } 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,
        v4d0NonCriticalExtensions SEQUENCE {
          -- Container for adding non critical extensions after freezing REL-5
          cellUpdateConfirm-CCCH-r4-add-ext BIT STRING OPTIONAL,
          v5xyNonCriticalExtensions SEQUENCE {
            cellUpdateConfirm-v5xyext CellUpdateConfirm-v5xyext-IEs,
            nonCriticalExtensions SEQUENCE {} OPTIONAL
          } OPTIONAL
        } OPTIONAL
      },
      criticalExtensions CHOICE {
        r5 SEQUENCE {
          cellUpdateConfirm-r5 CellUpdateConfirm-r5-IEs,
          cellUpdateConfirm-CCCH-r5-add-ext BIT STRING OPTIONAL,
          nonCriticalExtensions SEQUENCE {} OPTIONAL
        },
        criticalExtensions SEQUENCE {}
      }
    }
  }
}

```

[...]

```
HandoverToUTRANCommand ::= CHOICE {
  r3 SEQUENCE {
    handoverToUTRANCommand-r3 HandoverToUTRANCommand-r3-IEs,
    nonCriticalExtensions SEQUENCE {} OPTIONAL
  },
  criticalExtensions CHOICE {
    r4 SEQUENCE {
      handoverToUTRANCommand-r4 HandoverToUTRANCommand-r4-IEs,
      v4d0NonCriticalExtensions SEQUENCE {
      Container for adding non critical extensions after freezing REL-5
      handoverToUTRANCommand-r4-add-ext BIT STRING OPTIONAL,
      nonCriticalExtensions SEQUENCE {} OPTIONAL
      } OPTIONAL
    },
    criticalExtensions CHOICE {
```

```

    r5
    handoverToUTRANCommand-r5 SEQUENCE {
        Container for adding non critical extensions after freezing REL-6
        handoverToUTRANCommand-r5-add-ext BIT STRING OPTIONAL,
        nonCriticalExtensions SEQUENCE {} OPTIONAL
    },
    criticalExtensions SEQUENCE {}
}
}
}
[...]
```

11.5 RRC information between network nodes

[...]

```

-- *****
--
-- SRNC Relocation information
--
-- *****

SRNC-RelocationInfo-r3 ::= CHOICE {
    r3 SEQUENCE {
        sRNC-RelocationInfo-r3 SRNC-RelocationInfo-r3-IEs,
        v380NonCriticalExtensions SEQUENCE {
            sRNC-RelocationInfo-v380ext SRNC-RelocationInfo-v380ext-IEs,
            -- Reserved for future non critical extension
        },
        v390NonCriticalExtensions SEQUENCE {
            sRNC-RelocationInfo-v390ext SRNC-RelocationInfo-v390ext-IEs,
            v3a0NonCriticalExtensions SEQUENCE {
                sRNC-RelocationInfo-v3a0ext SRNC-RelocationInfo-v3a0ext-IEs,
                v3b0NonCriticalExtensions SEQUENCE {
                    sRNC-RelocationInfo-v3b0ext SRNC-RelocationInfo-v3b0ext-IEs,
                    v3c0NonCriticalExtensions SEQUENCE {
                        sRNC-RelocationInfo-v3c0ext SRNC-RelocationInfo-v3c0ext-IEs,
                        laterNonCriticalExtensions SEQUENCE {
                            sRNC-RelocationInfo-v3d0ext SRNC-RelocationInfo-v3d0ext-
            IEs,
                -- Container for additional R99 extensions
                sRNC-RelocationInfo-r3-add-ext BIT STRING
                (CONTAINING SRNC-RelocationInfo-v3h0ext-IEs) OPTIONAL,
                v3g0NonCriticalExtensions SEQUENCE {
                    sRNC-RelocationInfo-v3g0ext SRNC-RelocationInfo-v3g0ext-IEs,
                    v4b0NonCriticalExtensions SEQUENCE {
                        sRNC-RelocationInfo-v4b0ext SRNC-RelocationInfo-v4b0ext-IEs,
                        v5xyNonCriticalExtensions SEQUENCE {
                            sRNC-RelocationInfo-v5xyext SRNC-
            RelocationInfo-v5xyext-IEs,
                -- Reserved for future non critical extension
                nonCriticalExtensions SEQUENCE {} OPTIONAL
            }
        } OPTIONAL
    } OPTIONAL
} OPTIONAL
} OPTIONAL
} OPTIONAL
},
later-than-r3 CHOICE {
    r4 SEQUENCE {
        sRNC-RelocationInfo-r4 SRNC-RelocationInfo-r4-IEs,
        v4d0NonCriticalExtensions SEQUENCE {
            sRNC-RelocationInfo-v4ed0ext SRNC-RelocationInfo-v4ed0ext-IEs,
            -- Container for adding non critical extensions after freezing REL-5
            sRNC-RelocationInfo-r4-add-ext BIT STRING OPTIONAL,
            v5xyNonCriticalExtensions SEQUENCE {
                sRNC-RelocationInfo-v5xyext SRNC-RelocationInfo-v5xyext-IEs,
                nonCriticalExtensions SEQUENCE {} OPTIONAL
            } OPTIONAL
        } OPTIONAL
    } OPTIONAL
},
```

```

        criticalExtensions          SEQUENCE {}
    }
}
[...]
```

```

SRNC-RelocationInfo-v3h0ext-IEs ::= SEQUENCE {
    tpc-CombinationInfoList        TPC-CombinationInfoList    OPTIONAL,
    nonCriticalExtension           SEQUENCE {}                 OPTIONAL
}
| SRNC-RelocationInfo-v4ed0ext-IEs ::= SEQUENCE {
    tpc-CombinationInfoList        TPC-CombinationInfoList    OPTIONAL
}
TPC-CombinationInfoList ::= SEQUENCE (SIZE (1..maxRL)) OF
    TPC-Combination-Info
```

CHANGE REQUEST

⌘ **25.331 CR 2315** ⌘ rev **-** ⌘ Current version: **5.8.0** ⌘

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘	Incorrect presence of UE-RadioAccessCapability extension in RRC CONNECTION SETUP COMPLETE	
Source:	⌘	RAN WG2	
Work item code:	⌘	TEI5	Date: ⌘ 13/05/2004
Category:	⌘	F	Release: ⌘ Rel-5
		Use <u>one</u> of the following categories:	Use <u>one</u> of the following releases:
		F (correction)	2 (GSM Phase 2)
		A (corresponds to a correction in an earlier release)	R96 (Release 1996)
		B (addition of feature),	R97 (Release 1997)
		C (functional modification of feature)	R98 (Release 1998)
		D (editorial modification)	R99 (Release 1999)
		Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘	The IE "UE-RadioAccessCapability-v5xyext" is provided as <i>mandatory present</i> in the ASN.1 representation of the RRC Connection Setup Complete message and the SRNS Relocation Info message, although the presence of the UE radio access capabilities should be <i>optional</i> (according to the tabular and the procedure requirements). If the information is not required by the UTRAN in the RRC Connection Setup message, it is unclear how the UE may set this information in the completion message.
Summary of change:	⌘	The IE "UE-RadioAccessCapability-v5xyext" is made OPTIONAL in the R5 extension of the RRC Connection Setup Complete message. The CR also includes shadow corrections from the corresponding CR in REL-4: CR 2352 to 25.331.
Consequences if not approved:	⌘	The unnecessary information in the RRC Connection Setup Complete message remains and the expected contents of that is unclear. The unnecessary information sent by the UE might be misinterpreted by the UTRAN. Isolated impact analysis The transfer syntax of the RRC Connection Setup Complete message is modified. A correct implementation is needed by both enteties, otherwise the the UE capabilities might not be correctly interpreted by the UTRAN.

Clauses affected:	⌘	11.2, 11.5		
<table border="1" style="margin: auto;"> <tr> <td style="padding: 2px 10px;">Y</td> <td style="padding: 2px 10px;">N</td> </tr> </table>			Y	N
Y	N			

Other specs affected:	⌘	<input checked="" type="checkbox"/>	Other core specifications	⌘	
		<input checked="" type="checkbox"/>	Test specifications		
		<input checked="" type="checkbox"/>	O&M Specifications		
Other comments:	⌘				

11.2 PDU definitions

```

:
-- *****
--
-- 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-IEs,
        laterNonCriticalExtensions        SEQUENCE {
          -- Container for additional R99 extensions
          rrcConnectionSetupComplete-r3-add-ext  BIT STRING          OPTIONAL,
          v3g0NonCriticalExtensions          SEQUENCE {
            rrcConnectionSetupComplete-v3g0ext  RRCConnectionSetupComplete-v3g0ext-IEs,
            v4b0NonCriticalExtensions          SEQUENCE {
              rrcConnectionSetupComplete-v4b0ext
              RRCConnectionSetupComplete-v4b0ext-IEs,
              v5xyNonCriticalExtensions      SEQUENCE {
                rrcConnectionSetupComplete-v5xyext
                RRCConnectionSetupComplete-v5xyext-IEs,
                nonCriticalExtensions        SEQUENCE {}          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-IEs ::= SEQUENCE {
  -- User equipment IEs
  ue-RadioAccessCapability-v3a0ext  UE-RadioAccessCapability-v3a0ext  OPTIONAL
}

RRCConnectionSetupComplete-v3g0ext-IEs ::= SEQUENCE {
  -- User equipment IEs
  ue-RadioAccessCapability-v3g0ext  UE-RadioAccessCapability-v3g0ext  OPTIONAL
}

RRCConnectionSetupComplete-v4b0ext-IEs ::= SEQUENCE {
  -- User equipment IEs
  ue-RadioAccessCapability-v4b0ext  UE-RadioAccessCapability-v4b0ext  OPTIONAL
}

```


11.3 Information element definitions

```

:
UE-RadioAccessCapability-v5xyext ::= SEQUENCE {
  dl-CapabilityWithSimultaneousHS-DSCHConfig DL-CapabilityWithSimultaneousHS-DSCHConfig
  OPTIONAL,
  pdcp-Capability-r5-ext PDCP-Capability-r5-ext,
  rlc-Capability-r5-ext RLC-Capability-r5-ext,
  physicalChannelCapability PhysicalChannelCapability-hspdsch-r5,
  multiModerAT-Capability-v5xyext MultiModerAT-Capability-v5xyext
}
:

```

11.5 RRC information between network nodes

```

:
-- *****
--
-- SRNC Relocation information
--
-- *****

SRNC-RelocationInfo-r3 ::= CHOICE {
  r3 SEQUENCE {
    sRNC-RelocationInfo-r3 SRNC-RelocationInfo-r3-IEs,
    v380NonCriticalExtensions SEQUENCE {
      sRNC-RelocationInfo-v380ext SRNC-RelocationInfo-v380ext-IEs,
      -- Reserved for future non critical extension
    },
    v390NonCriticalExtensions SEQUENCE {
      sRNC-RelocationInfo-v390ext SRNC-RelocationInfo-v390ext-IEs,
      v3a0NonCriticalExtensions SEQUENCE {
        sRNC-RelocationInfo-v3a0ext SRNC-RelocationInfo-v3a0ext-IEs,
        v3b0NonCriticalExtensions SEQUENCE {
          sRNC-RelocationInfo-v3b0ext SRNC-RelocationInfo-v3b0ext-IEs,
          v3c0NonCriticalExtensions SEQUENCE {
            sRNC-RelocationInfo-v3c0ext SRNC-RelocationInfo-v3c0ext-IEs,
            laterNonCriticalExtensions SEQUENCE {
              sRNC-RelocationInfo-v3d0ext SRNC-RelocationInfo-v3d0ext-
IEs,
              -- Container for additional R99 extensions
              sRNC-RelocationInfo-r3-add-ext BIT STRING
              (CONTAINING SRNC-RelocationInfo-v3h0ext-IEs) OPTIONAL,
              v3g0NonCriticalExtensions SEQUENCE {
                sRNC-RelocationInfo-v3g0ext SRNC-RelocationInfo-v3g0ext-IEs,
                v4b0NonCriticalExtensions SEQUENCE {
                  sRNC-RelocationInfo-v4b0ext SRNC-RelocationInfo-v4b0ext-IEs,
                  v5xyNonCriticalExtensions SEQUENCE {
                    sRNC-RelocationInfo-v5xyext SRNC-
RelocationInfo-v5xyext-IEs,
                    -- Reserved for future non critical extension
                    nonCriticalExtensions SEQUENCE {} OPTIONAL
                  }
                } OPTIONAL
              } OPTIONAL
            } OPTIONAL
          } OPTIONAL
        } OPTIONAL
      } OPTIONAL
    } OPTIONAL
  },
  later-than-r3 CHOICE {
    r4 SEQUENCE {
      sRNC-RelocationInfo-r4 SRNC-RelocationInfo-r4-IEs,
      v4d0NonCriticalExtensions SEQUENCE {
        sRNC-RelocationInfo-v4c0ext SRNC-RelocationInfo-v4c0ext-IEs,
        -- Container for adding non critical extensions after freezing REL-5
        sRNC-RelocationInfo-r4-add-ext BIT STRING OPTIONAL,
        v5xyNonCriticalExtensions SEQUENCE {
          sRNC-RelocationInfo-v5xyext SRNC-RelocationInfo-v5xyext-IEs,

```

```

        nonCriticalExtensions          SEQUENCE {} OPTIONAL
    } OPTIONAL
},
criticalExtensions                    SEQUENCE {}
}
}

SRNC-RelocationInfo-r3-IEs ::= SEQUENCE {
-- Non-RRC IEs
stateOfRRC                            StateOfRRC,
stateOfRRC-Procedure                  StateOfRRC-Procedure,
-- Ciphering related information IEs
-- If the extension v380 is included use the extension for the ciphering status per CN domain
cipheringStatus                        CipheringStatus,
calculationTimeForCiphering           CalculationTimeForCiphering          OPTIONAL,
-- The order of occurrence in the IE cipheringInfoPerRB-List is the
-- same as the RBs in SRB-InformationSetupList in RAB-InformationSetupList.
-- The signalling RBs are supposed to be listed
-- first. Only UM and AM RBs that are ciphered are listed here
cipheringInfoPerRB-List               CipheringInfoPerRB-List          OPTIONAL,
count-C-List                          COUNT-C-List                     OPTIONAL,
integrityProtectionStatus             IntegrityProtectionStatus,
-- In the IE srb-SpecificIntegrityProtInfo, the first information listed corresponds to
-- signalling radio bearer RB0 and after the order of occurrence is the same as the SRBs in
-- SRB-InformationSetupList
srb-SpecificIntegrityProtInfo         SRB-SpecificIntegrityProtInfoList,
implementationSpecificParams          ImplementationSpecificParams     OPTIONAL,
-- User equipment IEs
u-RNTI                                U-RNTI,
c-RNTI                                C-RNTI                           OPTIONAL,
ue-RadioAccessCapability              UE-RadioAccessCapability,
ue-Positioning-LastKnownPos           UE-Positioning-LastKnownPos      OPTIONAL,
-- Other IEs
ue-RATSpecificCapability              InterRAT-UE-RadioAccessCapabilityList OPTIONAL,
-- UTRAN mobility IEs
ura-Identity                          URA-Identity                     OPTIONAL,
-- Core network IEs
cn-CommonGSM-MAP-NAS-SysInfo          NAS-SystemInformationGSM-MAP,
cn-DomainInformationList              CN-DomainInformationList         OPTIONAL,
-- Measurement IEs
ongoingMeasRepList                   OngoingMeasRepList              OPTIONAL,
-- Radio bearer IEs
predefinedConfigStatusList           PredefinedConfigStatusList,
srb-InformationList                  SRB-InformationSetupList,
rab-InformationList                  RAB-InformationSetupList         OPTIONAL,
-- Transport channel IEs
ul-CommonTransChInfo                 UL-CommonTransChInfo            OPTIONAL,
ul-TransChInfoList                   UL-AddReconfTransChInfoList     OPTIONAL,
modeSpecificInfo                     CHOICE {
    fdd                                SEQUENCE {
        cpch-SetID                    CPCH-SetID                      OPTIONAL,
        transChDRAC-Info              DRAC-StaticInformationList      OPTIONAL
    },
    tdd                                NULL
},
dl-CommonTransChInfo                 DL-CommonTransChInfo            OPTIONAL,
dl-TransChInfoList                   DL-AddReconfTransChInfoList     OPTIONAL,
-- Measurement report
measurementReport                     MeasurementReport                OPTIONAL
}

SRNC-RelocationInfo-v380ext-IEs ::= SEQUENCE {
-- Ciphering related information IEs
cn-DomainIdentity                    CN-DomainIdentity,
cipheringStatusList                  CipheringStatusList
}

SRNC-RelocationInfo-v390ext-IEs ::= SEQUENCE {
cn-DomainInformationList-v390ext      CN-DomainInformationList-v390ext  OPTIONAL,
ue-RadioAccessCapability-v370ext      UE-RadioAccessCapability-v370ext  OPTIONAL,
ue-RadioAccessCapability-v380ext      UE-RadioAccessCapability-v380ext  OPTIONAL,
dl-PhysChCapabilityFDD-v380ext        DL-PhysChCapabilityFDD-v380ext,
failureCauseWithProtErr               FailureCauseWithProtErr           OPTIONAL
}

SRNC-RelocationInfo-v3a0ext-IEs ::= SEQUENCE {
cipheringInfoForSRB1-v3a0ext          CipheringInfoPerRB-List-v3a0ext,

```

```

        ue-RadioAccessCapability-v3a0ext    UE-RadioAccessCapability-v3a0ext    OPTIONAL,
        -- cn-domain identity for IE startValueForCipherring-v3a0ext is specified
        -- in subsequent extension (SRNC-RelocationInfo-v3b0ext-IEs)
        startValueForCipherring-v3a0ext    START-Value
    }

SRNC-RelocationInfo-v3b0ext-IEs ::= SEQUENCE {
    -- cn-domain identity for IE startValueForCipherring-v3a0ext included in previous extension
    cn-DomainIdentity                    CN-DomainIdentity,
    -- the IE startValueForCipherring-v3b0ext contains the start values for each CN Domain. The
    -- value of start message indicated by the IE startValueForCipherring-v3a0ext should be set to the
    -- same value as the start-Value for the corresponding cn-DomainIdentity in the IE
    -- startValueForCipherring-v3b0ext
    startValueForCipherring-v3b0ext      STARTList2                    OPTIONAL
}

SRNC-RelocationInfo-v3c0ext-IEs ::= SEQUENCE {
    -- IE rb-IdentityForHOMessage includes the identity of the RB used by the source SRNC
    -- to send the message contained in the IE "TargetRNC-ToSourceRNC-Container".
    -- Only included if type is "UE involved"
    rb-IdentityForHOMessage              RB-Identity                    OPTIONAL
}

SRNC-RelocationInfo-v3d0ext-IEs ::= SEQUENCE {
    -- User equipment IEs
    uESpecificBehaviourInformationIdle   UESpecificBehaviourInformationIdle    OPTIONAL,
    uESpecificBehaviourInformationInterRAT UESpecificBehaviourInformationInterRAT
    OPTIONAL
}

SRNC-RelocationInfo-v3g0ext-IEs ::= SEQUENCE {
    ue-RadioAccessCapability-v3g0ext    UE-RadioAccessCapability-v3g0ext    OPTIONAL
}

SRNC-RelocationInfo-v3h0ext-IEs ::= SEQUENCE {
    tpc-CombinationInfoList             TPC-CombinationInfoList            OPTIONAL,
    nonCriticalExtension                 SEQUENCE {}                       OPTIONAL
}

SRNC-RelocationInfo-v4c0ext-IEs ::= SEQUENCE {
    tpc-CombinationInfoList             TPC-CombinationInfoList            OPTIONAL
}

TPC-CombinationInfoList ::= SEQUENCE (SIZE (1..maxRL)) OF
    TPC-Combination-Info

STARTList2 ::=
    SEQUENCE (SIZE (2..maxCNdomains)) OF
        STARTSingle

SRNC-RelocationInfo-v4b0ext-IEs ::= SEQUENCE {
    ue-RadioAccessCapability-v4b0ext    UE-RadioAccessCapability-v4b0ext    OPTIONAL
}

SRNC-RelocationInfo-v5xyext-IEs ::= SEQUENCE {
    ue-RadioAccessCapability-v5xyext    UE-RadioAccessCapability-v5xyext    OPTIONAL,
    ue-RATSpecificCapability-v5xyext    InterRAT-UE-RadioAccessCapability-v5xyext    OPTIONAL
}

:

```

CHANGE REQUEST

⌘ **25.331 CR 2316** ⌘ rev **-** ⌘ Current version: **6.1.0** ⌘

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘	Incorrect presence of UE-RadioAccessCapability extension in RRC CONNECTION SETUP COMPLETE
Source:	⌘	RAN WG2
Work item code:	⌘	TEI5
		Date: ⌘ 13/05/2004
Category:	⌘	A
		<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Use <u>one</u> of the following categories:</p> <p>F (correction)</p> <p>A (corresponds to a correction in an earlier release)</p> <p>B (addition of feature),</p> <p>C (functional modification of feature)</p> <p>D (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p> </div> <div style="width: 45%;"> <p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2)</p> <p>R96 (Release 1996)</p> <p>R97 (Release 1997)</p> <p>R98 (Release 1998)</p> <p>R99 (Release 1999)</p> <p>Rel-4 (Release 4)</p> <p>Rel-5 (Release 5)</p> <p>Rel-6 (Release 6)</p> </div> </div>
		Release: ⌘ Rel-6

Reason for change:	⌘	The IE "UE-RadioAccessCapability-v5xyext" is provided as <i>mandatory present</i> in the ASN.1 representation of the RRC Connection Setup Complete message and the SRNS Relocation Info message, although the presence of the UE radio access capabilities should be <i>optional</i> (according to the tabular and the procedure requirements). If the information is not required by the UTRAN in the RRC Connection Setup message, it is unclear how the UE may set this information in the completion message.
Summary of change:	⌘	<p>The IE "UE-RadioAccessCapability-v5xyext" is made OPTIONAL in the R5 extension of the RRC Connection Setup Complete message.</p> <p>The CR also includes shadow corrections from the corresponding CR in REL-4: CR 2352 to 25.331.</p>
Consequences if not approved:	⌘	<p>The unnecessary information in the RRC Connection Setup Complete message remains and the expected contents of that is unclear. The unnecessary information sent by the UE might be misinterpreted by the UTRAN.</p> <p>Isolated impact analysis</p> <p>The transfer syntax of the RRC Connection Setup Complete message is modified. A correct implementation is needed by both entities, otherwise the the UE capabilities might not be correctly interpreted by the UTRAN.</p>

Clauses affected:	⌘	11.2, 11.5		
		<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">Y</td> <td style="padding: 2px 5px;">N</td> </tr> </table>	Y	N
Y	N			

Other specs affected:	⌘	<input checked="" type="checkbox"/>	Other core specifications	⌘	
		<input checked="" type="checkbox"/>	Test specifications		
		<input checked="" type="checkbox"/>	O&M Specifications		
Other comments:	⌘				

11.2 PDU definitions

```

:
-- *****
--
-- 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-IEs,
        laterNonCriticalExtensions        SEQUENCE {
          -- Container for additional R99 extensions
          rrcConnectionSetupComplete-r3-add-ext  BIT STRING          OPTIONAL,
          v3g0NonCriticalExtensions          SEQUENCE {
            rrcConnectionSetupComplete-v3g0ext  RRCConnectionSetupComplete-v3g0ext-IEs,
            v4b0NonCriticalExtensions          SEQUENCE {
              rrcConnectionSetupComplete-v4b0ext
              RRCConnectionSetupComplete-v4b0ext-IEs,
              v5xyNonCriticalExtensions      SEQUENCE {
                rrcConnectionSetupComplete-v5xyext
                RRCConnectionSetupComplete-v5xyext-IEs,
                nonCriticalExtensions        SEQUENCE {}          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-IEs ::= SEQUENCE {
  -- User equipment IEs
  ue-RadioAccessCapability-v3a0ext  UE-RadioAccessCapability-v3a0ext  OPTIONAL
}

RRCConnectionSetupComplete-v3g0ext-IEs ::= SEQUENCE {
  -- User equipment IEs
  ue-RadioAccessCapability-v3g0ext  UE-RadioAccessCapability-v3g0ext  OPTIONAL
}

RRCConnectionSetupComplete-v4b0ext-IEs ::= SEQUENCE {
  -- User equipment IEs
  ue-RadioAccessCapability-v4b0ext  UE-RadioAccessCapability-v4b0ext  OPTIONAL
}

```

```

RRCConnectionSetupComplete-v5xyext-IEs ::= SEQUENCE {
  -- User equipment IEs
  ue-RadioAccessCapability-v5xyext      UE-RadioAccessCapability-v5xyext OPTIONAL,
  -- Other IEs
  ue-RATSpecificCapability-v5xyext      InterRAT-UE-RadioAccessCapability-v5xyext  OPTIONAL
}

:

-- *****
--
-- 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-IEs,
        laterNonCriticalExtensions      SEQUENCE {
          -- Container for additional R99 extensions
          ueCapabilityInformation-r3-add-ext BIT STRING      OPTIONAL,
          -- Reserved for future non critical extension
          v4b0NonCriticalExtensions      SEQUENCE {
            ueCapabilityInformation-v4b0ext UECapabilityInformation-v4b0ext,
            v5xyNonCriticalExtensions      SEQUENCE {
              ueCapabilityInformation-v5xyext UECapabilityInformation-v5xyext,
              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-IEs ::= SEQUENCE {
  -- User equipment IEs
  ue-RadioAccessCapability-v3a0ext      UE-RadioAccessCapability-v3a0ext      OPTIONAL
}

UECapabilityInformation-v4b0ext ::= SEQUENCE {
  -- User equipment IEs
  ue-RadioAccessCapability-v4b0ext      UE-RadioAccessCapability-v4b0ext OPTIONAL
}

UECapabilityInformation-v5xyext ::= SEQUENCE {
  -- User equipment IEs
  ue-RadioAccessCapability-v5xyext      UE-RadioAccessCapability-v5xyext      OPTIONAL,
  -- Other IEs
  ue-RATSpecificCapability-v5xyext      InterRAT-UE-RadioAccessCapability-v5xyext  OPTIONAL
}
}
}

:

```

11.5 RRC information between network nodes

```

:
-- *****
--
-- SRNC Relocation information
--
-- *****

SRNC-RelocationInfo-r3 ::= CHOICE {
  r3 SEQUENCE {
    sRNC-RelocationInfo-r3 SRNC-RelocationInfo-r3-IEs,
    v380NonCriticalExtensions SEQUENCE {
      sRNC-RelocationInfo-v380ext SRNC-RelocationInfo-v380ext-IEs,
      -- Reserved for future non critical extension
    },
    v390NonCriticalExtensions SEQUENCE {
      sRNC-RelocationInfo-v390ext SRNC-RelocationInfo-v390ext-IEs,
      v3a0NonCriticalExtensions SEQUENCE {
        sRNC-RelocationInfo-v3a0ext SRNC-RelocationInfo-v3a0ext-IEs,
        v3b0NonCriticalExtensions SEQUENCE {
          sRNC-RelocationInfo-v3b0ext SRNC-RelocationInfo-v3b0ext-IEs,
          v3c0NonCriticalExtensions SEQUENCE {
            sRNC-RelocationInfo-v3c0ext SRNC-RelocationInfo-v3c0ext-IEs,
            laterNonCriticalExtensions SEQUENCE {
              sRNC-RelocationInfo-v3d0ext SRNC-RelocationInfo-v3d0ext-
IEs,
              -- Container for additional R99 extensions
              sRNC-RelocationInfo-r3-add-ext BIT STRING
              (CONTAINING SRNC-RelocationInfo-v3h0ext-IEs) OPTIONAL,
              v3g0NonCriticalExtensions SEQUENCE {
                sRNC-RelocationInfo-v3g0ext SRNC-RelocationInfo-v3g0ext-IEs,
                v4b0NonCriticalExtensions SEQUENCE {
                  sRNC-RelocationInfo-v4b0ext SRNC-RelocationInfo-v4b0ext-IEs,
                  v5xyNonCriticalExtensions SEQUENCE {
                    sRNC-RelocationInfo-v5xyext SRNC-
RelocationInfo-v5xyext-IEs,
                    -- Reserved for future non critical extension
                    nonCriticalExtensions SEQUENCE {} OPTIONAL
                  }
                } OPTIONAL
              }
            } OPTIONAL
          }
        } OPTIONAL
      }
    }
  },
  later-than-r3 CHOICE {
    r4 SEQUENCE {
      sRNC-RelocationInfo-r4 SRNC-RelocationInfo-r4-IEs,
      v4d0NonCriticalExtensions SEQUENCE {
        sRNC-RelocationInfo-v4c0ext SRNC-RelocationInfo-v4c0ext-IEs,
        -- Container for adding non critical extensions after freezing REL-5
        sRNC-RelocationInfo-r4-add-ext BIT STRING OPTIONAL,
        v5xyNonCriticalExtensions SEQUENCE {
          sRNC-RelocationInfo-v5xyext SRNC-RelocationInfo-v5xyext-IEs,
          nonCriticalExtensions SEQUENCE {} OPTIONAL
        }
      } OPTIONAL
    },
    criticalExtensions SEQUENCE {}
  }
}

SRNC-RelocationInfo-r3-IEs ::= SEQUENCE {
  -- Non-RRC IEs
  stateOfRRC StateOfRRC,
  stateOfRRC-Procedure StateOfRRC-Procedure,
  -- Ciphering related information IEs
  -- If the extension v380 is included use the extension for the ciphering status per CN domain
  cipheringStatus CipheringStatus,
  calculationTimeForCiphering CalculationTimeForCiphering OPTIONAL,

```

```

-- The order of occurrence in the IE cipheringInfoPerRB-List is the
-- same as the RBs in SRB-InformationSetupList in RAB-InformationSetupList.
-- The signalling RBs are supposed to be listed
-- first. Only UM and AM RBs that are ciphered are listed here
cipheringInfoPerRB-List      CipheringInfoPerRB-List      OPTIONAL,
count-C-List                 COUNT-C-List                 OPTIONAL,
integrityProtectionStatus    IntegrityProtectionStatus,
-- In the IE srb-SpecificIntegrityProtInfo, the first information listed corresponds to
-- signalling radio bearer RB0 and after the order of occurrence is the same as the SRBs in
-- SRB-InformationSetupList
srb-SpecificIntegrityProtInfo SRB-SpecificIntegrityProtInfoList,
implementationSpecificParams ImplementationSpecificParams OPTIONAL,
-- User equipment IEs
u-RNTI                       U-RNTI,
c-RNTI                       C-RNTI                       OPTIONAL,
ue-RadioAccessCapability     UE-RadioAccessCapability,
ue-Positioning-LastKnownPos  UE-Positioning-LastKnownPos  OPTIONAL,
-- Other IEs
ue-RATSpecificCapability     InterRAT-UE-RadioAccessCapabilityList OPTIONAL,
-- UTRAN mobility IEs
ura-Identity                 URA-Identity                 OPTIONAL,
-- Core network IEs
cn-CommonGSM-MAP-NAS-SysInfo NAS-SystemInformationGSM-MAP,
cn-DomainInformationList     CN-DomainInformationList     OPTIONAL,
-- Measurement IEs
ongoingMeasRepList          OngoingMeasRepList          OPTIONAL,
-- Radio bearer IEs
predefinedConfigStatusList  PredefinedConfigStatusList,
srb-InformationList         SRB-InformationSetupList,
rab-InformationList         RAB-InformationSetupList     OPTIONAL,
-- Transport channel IEs
ul-CommonTransChInfo        UL-CommonTransChInfo        OPTIONAL,
ul-TransChInfoList          UL-AddReconfTransChInfoList OPTIONAL,
modeSpecificInfo            CHOICE {
    fdd                       SEQUENCE {
        cpch-SetID           CPCH-SetID                 OPTIONAL,
        transChDRAC-Info     DRAC-StaticInformationList OPTIONAL
    },
    tdd                       NULL
},
dl-CommonTransChInfo        DL-CommonTransChInfo        OPTIONAL,
dl-TransChInfoList          DL-AddReconfTransChInfoList OPTIONAL,
-- Measurement report
measurementReport           MeasurementReport            OPTIONAL
}

SRNC-RelocationInfo-v380ext-IEs ::= SEQUENCE {
-- Ciphering related information IEs
cn-DomainIdentity           CN-DomainIdentity,
cipheringStatusList         CipheringStatusList
}

SRNC-RelocationInfo-v390ext-IEs ::= SEQUENCE {
cn-DomainInformationList-v390ext  CN-DomainInformationList-v390ext  OPTIONAL,
ue-RadioAccessCapability-v370ext  UE-RadioAccessCapability-v370ext  OPTIONAL,
ue-RadioAccessCapability-v380ext  UE-RadioAccessCapability-v380ext  OPTIONAL,
dl-PhysChCapabilityFDD-v380ext    DL-PhysChCapabilityFDD-v380ext,
failureCauseWithProtErr         FailureCauseWithProtErr          OPTIONAL
}

SRNC-RelocationInfo-v3a0ext-IEs ::= SEQUENCE {
cipheringInfoForSRB1-v3a0ext      CipheringInfoPerRB-List-v3a0ext,
ue-RadioAccessCapability-v3a0ext  UE-RadioAccessCapability-v3a0ext  OPTIONAL,
-- cn-domain identity for IE startValueForCiphering-v3a0ext is specified
-- in subsequent extension (SRNC-RelocationInfo-v3b0ext-IEs)
startValueForCiphering-v3a0ext    START-Value
}

SRNC-RelocationInfo-v3b0ext-IEs ::= SEQUENCE {
-- cn-domain identity for IE startValueForCiphering-v3a0ext included in previous extension
cn-DomainIdentity               CN-DomainIdentity,
-- the IE startValueForCiphering-v3b0ext contains the start values for each CN Domain. The
-- value of start indicated by the IE startValueForCiphering-v3a0ext should be set to the
-- same value as the start-Value for the corresponding cn-DomainIdentity in the IE
-- startValueForCiphering-v3b0ext
startValueForCiphering-v3b0ext    STARTList2                      OPTIONAL
}

```

```

SRNC-RelocationInfo-v3c0ext-IEs ::= SEQUENCE {
    -- IE rb-IdentityForHOMessage includes the identity of the RB used by the source SRNC
    -- to send the message contained in the IE "TargetRNC-ToSourceRNC-Container".
    -- Only included if type is "UE involved"
    rb-IdentityForHOMessage          RB-Identity          OPTIONAL
}

SRNC-RelocationInfo-v3d0ext-IEs ::= SEQUENCE {
    -- User equipment IEs
    uESpecificBehaviourInformationIdle    UESpecificBehaviourInformationIdle    OPTIONAL,
    uESpecificBehaviourInformationInterRAT UESpecificBehaviourInformationInterRAT
    OPTIONAL
}

SRNC-RelocationInfo-v3g0ext-IEs ::= SEQUENCE {
    ue-RadioAccessCapability-v3g0ext    UE-RadioAccessCapability-v3g0ext    OPTIONAL
}

SRNC-RelocationInfo-v3h0ext-IEs ::= SEQUENCE {
    tpc-CombinationInfoList              TPC-CombinationInfoList              OPTIONAL,
    nonCriticalExtension                  SEQUENCE {}                          OPTIONAL
}

SRNC-RelocationInfo-v4c0ext-IEs ::= SEQUENCE {
    tpc-CombinationInfoList              TPC-CombinationInfoList              OPTIONAL
}

TPC-CombinationInfoList ::= SEQUENCE (SIZE (1..maxRL)) OF
    TPC-Combination-Info

STARTList2 ::=
    SEQUENCE (SIZE (2..maxCNDomains)) OF
        STARTSingle

SRNC-RelocationInfo-v4b0ext-IEs ::= SEQUENCE {
    ue-RadioAccessCapability-v4b0ext    UE-RadioAccessCapability-v4b0ext OPTIONAL
}

SRNC-RelocationInfo-v5xyext-IEs ::= SEQUENCE {
    ue-RadioAccessCapability-v5xyext    UE-RadioAccessCapability-v5xyext OPTIONAL,
    ue-RATSpecificCapability-v5xyext    InterRAT-UE-RadioAccessCapability-v5xyext    OPTIONAL
}

:

```

CHANGE REQUEST

⌘ **25.331 CR 2321** ⌘ rev **-** ⌘ Current version: **4.13.0** ⌘

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Clean up of SRNS Relocation Info REL-4 version		
Source:	⌘ RAN WG2		
Work item code:	⌘ TEI4	Date:	⌘ 14/05/2004
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 TR 21.900 .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	⌘ The IE "UE-RadioAccessCapability-v3g0ext" is missing in the REL-4 branch of the PDU "SRNC-RelocationInfo-r3". This IE contains the UE positioning capability parameter "sfn-sfnType2Capability".
Summary of change:	⌘ The missing UE positioning capability parameter "sfn-sfnType2Capability" is appended to the IE "UE-Positioning-Capability-r4".
Consequences if not approved:	⌘ The particular UE positioning capability cannot be indicated, if the REL-4 branch of the PDU "SRNC-RelocationInfo-r3" is used between the source and the target RNCs in the SRNS relocation procedure. Isolated impact analysis: This correction does not affect the UE. The correction needs to be implemented by both the source and the target RNC, if the REL-4 branch of the PDU "SRNC-RelocationInfo-r3" shall be used in the SRNS relocation procedure. The R99 branch is not affected and may be used as a fallback, if both RNCs have not implemented the corrections. (It is assumed that this could be arranged by an operator dependent configuration.)

Clauses affected:	⌘ 11.5								
Other specs affected:	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications	Y	N		X		X	⌘	
Y	N								
	X								
	X								
	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; text-align: center;"> </td> <td style="width: 20px; text-align: center;">X</td> </tr> </table> Test specifications		X	⌘					
	X								

O&M Specifications

Other comments: ⌘

11.5 RRC information between network nodes

:

```

UE-Positioning-Capability-r4 ::= SEQUENCE {
    standaloneLocMethodsSupported    BOOLEAN,
    ue-BasedOTDOA-Supported          BOOLEAN,
    networkAssistedGPS-Supported    NetworkAssistedGPS-Supported,
    supportForUE-GPS-TimingOfCellFrames    BOOLEAN,
    supportForIPDL                   BOOLEAN,
    rx-tx-TimeDifferenceType2Capable    BOOLEAN,
    validity-CellPCH-UraPCH           ENUMERATED { true +0- } OPTIONAL,
    sfn-sfnType2Capability           ENUMERATED { true } OPTIONAL
}

```

:

CHANGE REQUEST

⌘ **25.331 CR 2322** ⌘ rev **-** ⌘ Current version: **5.8.0** ⌘

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Clean up of SRNS Relocation Info REL-5 version		
Source:	⌘ RAN WG2		
Work item code:	⌘ TEI5	Date:	⌘ 14/05/2004
Category:	⌘ F 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 TR 21.900 .	Release:	⌘ REL-5 Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change: ⌘ The SRNS Relocation Info message needs to be updated in order to reflect the changes that have been made to the RRC protocol in REL-5.

The element "sfn-sfnType2Capability" is missing in the current r4 branch of the PDU "SRNC-RelocationInfo-r3".

Summary of change: ⌘ **The following main changes are made:**

An r5 critical extension is introduced in the PDU "SRNC-RelocationInfo-r3", including an r5 set of IEs, an optional VLEC and an optional non-critical extension. This allows a structured way for reuse of a number of r5 IEs defined for the RRC protocol, in particular for the representation of HSDPA options.

The missing UE positioning capability parameter "sfn-sfnType2Capability" is appended to the IE "UE-Positioning-Capability-r4".

The following new (r5) IEs are defined to be used in the new r5 branch of the PDU: "DL-PhysChCapabilityFDD-r5", "DL-PhysChCapabilityTDD-r5", "DL-PhysChCapabilityTDD-LCR-r5", "InterRAT-UE-RadioAccessCapabilityList-r5", "MaxHcContextSpace-r5", "OngoingMeasRep-r5", "OngoingMeasRepList-r5", "PDCP-Capability-r5", "PhysicalChannelCapability-r5", "RLC-Capability-r5", "TotalRLC-AM-BufferSize-r5", "UE-MultiModeRAT-Capability-r5", "UE-Positioning-Capability-r5" and "UE-RadioAccessCapability-r5".

The tabular representation of the SRNS RELOCATION INFO is updated and, in particular in the "Measurement Related IEs", aligned with the MEASUREMENT CONTROL message. (Both messages already share substantial parts of the

same ASN.1 in this area.)

A few merely editorial alignments are made in the tabular representation of the SRNS RELOCATION INFO.

A small correction is done in the IE "MeasurementControl-v5xyext-IEs" in the PDU definition of the RRC messages.

Consequences if not approved:

⌘ The SRNS relocation procedure would not support a number of REL-5 features.

Isolated impact analysis:

These corrections do not affect the UE.

The correction needs to be implemented by both the source and the target RNC, if the REL-4 or REL-5 branch of the PDU "SRNC-RelocationInfo-r3" shall be used in the SRNS relocation procedure.

The R99 branch is not affected and may be used as a fallback, if both RNCs have not implemented the corrections. (It is assumed that this could be arranged by an operator dependent configuration.)

Clauses affected: ⌘ 11.2, 11.5, 14.12.4.2

Other specs affected:

Y	N
⌘	X
⌘	X
⌘	X

Other core specifications ⌘
Test specifications ⌘
O&M Specifications ⌘

Other comments: ⌘

11.2 PDU definitions

:

```

MeasurementControl-v5xyext-IEs ::= SEQUENCE {
  measurementCommand-v5xyext CHOICE {
    -- the choice "intra-frequency" shall be used for the case of intra-frequency measurement,
    -- as well as when intra-frequency events are configured for inter-frequency measurement
    intra-frequency          Intra-FreqEventCriteriaList-v5xyext,
    inter-frequency         Inter-FreqEventCriteriaList-v5xyext
  }
  OPTIONAL,
  intraFreqReportingCriteria-lb-r5      IntraFreqReportingCriteria-lb-r5      OPTIONAL,
  intraFreqEvent-lb-r5                 IntraFreqEvent-lb-r5                 OPTIONAL,
  -- most significant part of "RRC transaction identifier" (MSP),
  -- "RRC transaction identifier" = rrc-TransactionIdentifier-MSP-v5xyext * 4 +
  -- rrc-TransactionIdentifier
  rrc-TransactionIdentifier-MSP-v5xyext RRC-TransactionIdentifier
}

```

Next modified section

11.5 RRC information between network nodes

Internode-definitions DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

HandoverToUTRANCommand,
MeasurementReport,
PhysicalChannelReconfiguration,
RadioBearerReconfiguration,
RadioBearerRelease,
RadioBearerSetup,
RRC-FailureInfo,
TransportChannelReconfiguration

FROM PDU-definitions

```
-- Core Network IEs :
  CN-DomainIdentity,
  CN-DomainInformationList,
  CN-DomainInformationListFull,
  CN-DRX-CycleLengthCoefficient,
  NAS-SystemInformationGSM-MAP,
-- UTRAN Mobility IEs :
  CellIdentity,
  URA-Identity,
-- User Equipment IEs :
  AccessStratumReleaseIndicator,
  C-RNTI,
  ChipRateCapability,
  DL-CapabilityWithSimultaneousHS-DSCHConfig,
  DL-PhysChCapabilityFDD-v380ext,
  DL-PhysChCapabilityTDD,
  DL-PhysChCapabilityTDD-LCR-r4,
  GSM-Measurements,
  HSDSCH-physical-layer-category,
  FailureCauseWithProtErr,
  MaxHcContextSpace,
  MaximumAM-EntityNumberRLC-Cap,
  MaximumRLC-WindowSize,
  MaxNoPhysChBitsReceived,
  MaxPhysChPerFrame,
  MaxPhysChPerSubFrame-r4,
  MaxPhysChPerTS,
  MaxROHC-ContextSessions-r4,
  MaxTS-PerFrame,
  MaxTS-PerSubFrame-r4,
  MinimumSF-DL,
  MultiModeCapability,
  MultiRAT-Capability,
  NetworkAssistedGPS-Supported,
  RadioFrequencyBandTDDList,
  RLC-Capability,
  RRC-MessageSequenceNumber,
  SecurityCapability,
  SimultaneousSCCPCH-DPCH-Reception,
  STARTList,
  STARTSingle,
  START-Value,
  SupportOfDedicatedPilotsForChEstimation,
  TransportChannelCapability,
  TxRxFrequencySeparation,
  U-RNTI,
  UE-MultiModeRAT-Capability,
  UE-PowerClassExt,
  UE-RadioAccessCapabBandFDDList,
  UE-RadioAccessCapability,
  UE-RadioAccessCapability-v370ext,
  UE-RadioAccessCapability-v380ext,
  UE-RadioAccessCapability-v3a0ext,
  UE-RadioAccessCapability-v3g0ext,
  UE-RadioAccessCapability-v4b0ext,
```

```

    UE-RadioAccessCapability-v5xyext,
    UL-PhysChCapabilityFDD,
    UL-PhysChCapabilityTDD,
    UL-PhysChCapabilityTDD-LCR-r4,
-- Radio Bearer IEs :
    PredefinedConfigStatusList,
    PredefinedConfigValueTag,
    RAB-InformationSetupList,
    RAB-InformationSetupList-r4,
| RAB-InformationSetupList-r5,
|   RB-Identity,
|   SRB-InformationSetupList,
| SRB-InformationSetupList-r5,
-- Transport Channel IEs :
    CPCH-SetID,
    DL-CommonTransChInfo,
    DL-CommonTransChInfo-r4,
    DL-AddReconfTransChInfoList,
    DL-AddReconfTransChInfoList-r4,
| DL-AddReconfTransChInfoList-r5,
|   DRAC-StaticInformationList,
|   UL-CommonTransChInfo,
|   UL-CommonTransChInfo-r4,
|   UL-AddReconfTransChInfoList,
-- Physical Channel IEs :
    PrimaryCPICH-Info,
    TPC-CombinationIndex,
-- Measurement IEs :
| Inter-FreqEventCriteriaList-v590ext,
| Intra-FreqEventCriteriaList-v590ext,
| IntraFreqEvent-ld-r5,
| IntraFreqReportingCriteria-1b-r5,
    MeasurementIdentity,
    MeasurementReportingMode,
    MeasurementType,
    MeasurementType-r4,
    AdditionalMeasurementID-List,
    PositionEstimate,
-- Other IEs :
| GERANlu-RadioAccessCapability
    InterRAT-UE-RadioAccessCapabilityList,
    InterRAT-UE-RadioAccessCapability-v5xyext,
    UESpecificBehaviourInformationIdle,
    UESpecificBehaviourInformationInterRAT

FROM InformationElements

    maxCNdomains,
    maxNoOfMeas,

    maxRB,
    maxRBallRABs,
    maxRFC3095-CID,
    maxSRBsetup,
    maxRL

FROM Constant-definitions
;

-- Part 1: Class definitions similar to what has been defined in 11.1 for RRC messages
-- Information that is tranferred in the same direction and across the same path is grouped

-- *****
--
-- RRC information, to target RNC
--
-- *****
-- RRC Information to target RNC sent either from source RNC or from another RAT

ToTargetRNC-Container ::= CHOICE {
    interRATHandoverInfo          InterRATHandoverInfoWithInterRATCapabilities-r3,
    srncRelocation                SRNC-RelocationInfo-r3,
    rfc3095-ContextInfo           RFC3095-ContextInfo-r5,
    extension                      NULL
}

-- *****
--
-- RRC information, target RNC to source RNC

```

```

--
-- *****

TargetRNC-ToSourceRNC-Container ::= CHOICE {
    radioBearerSetup          RadioBearerSetup,
    radioBearerReconfiguration RadioBearerReconfiguration,
    radioBearerRelease        RadioBearerRelease,
    transportChannelReconfiguration TransportChannelReconfiguration,
    physicalChannelReconfiguration PhysicalChannelReconfiguration,
    rrc-FailureInfo           RRC-FailureInfo,
    -- IE dl-DCCHmessage consists of an octet string that includes the IE DL-DCCH-Message
    dl-DCCHmessage            OCTET STRING,
    extension                  NULL
}

-- Part 2: Container definitions, similar to the PDU definitions in 11.2 for RRC messages
-- In alphabetical order

-- *****
--
-- Handover to UTRAN information
--
-- *****

InterRATHandoverInfoWithInterRATCapabilities-r3 ::= CHOICE {
    r3 SEQUENCE {
        -- IE InterRATHandoverInfoWithInterRATCapabilities-r3-IEs also
        -- includes non critical extensions
        interRATHandoverInfo-r3 InterRATHandoverInfoWithInterRATCapabilities-r3-IEs,
        v390NonCriticalExtensions SEQUENCE {
            interRATHandoverInfoWithInterRATCapabilities-v390ext
        }
        InterRATHandoverInfoWithInterRATCapabilities-v390ext-IEs,
        -- Reserved for future non critical extension
        nonCriticalExtensions SEQUENCE {} OPTIONAL
    },
    criticalExtensions SEQUENCE {}
}

InterRATHandoverInfoWithInterRATCapabilities-r3-IEs ::= SEQUENCE {
    -- The order of the IEs may not reflect the tabular format
    -- but has been chosen to simplify the handling of the information in the BSC
    -- Other IEs
    ue-RATSpecificCapability InterRAT-UE-RadioAccessCapabilityList OPTIONAL,
    -- interRATHandoverInfo, Octet string is used to obtain 8 bit length field prior to
    -- actual information. This makes it possible for BSS to transparently handle information
    -- received via GSM air interface even when it includes non critical extensions.
    -- The octet string shall include the InterRATHandoverInfo information
    -- The BSS can re-use the 04.18 length field received from the MS
    interRATHandoverInfo OCTET STRING (SIZE (0..255))
}

InterRATHandoverInfoWithInterRATCapabilities-v390ext-IEs ::= SEQUENCE {
    -- User equipment IEs
    failureCauseWithProtErr FailureCauseWithProtErr OPTIONAL
}

-- *****
--
-- RFC3095 context, source RNC to target RNC
--
-- *****

RFC3095-ContextInfo-r5 ::= CHOICE {
    r5 SEQUENCE {
        rfc3095-ContextInfoList-r5 RFC3095-ContextInfoList-r5,
        -- Reserved for future non critical extension
        nonCriticalExtensions SEQUENCE {} OPTIONAL
    },
    criticalExtensions SEQUENCE {}
}

RFC3095-ContextInfoList-r5 ::= SEQUENCE (SIZE (1..maxRBallRABs)) OF
    RFC3095-ContextInfo

```

```

-- *****
--
-- SRNC Relocation information
--
-- *****

SRNC-RelocationInfo-r3 ::= CHOICE {
  r3 SEQUENCE {
    sRNC-RelocationInfo-r3 SRNC-RelocationInfo-r3-IEs,
    v380NonCriticalExtensions SEQUENCE {
      sRNC-RelocationInfo-v380ext SRNC-RelocationInfo-v380ext-IEs,
      -- Reserved for future non critical extension
    },
    v390NonCriticalExtensions SEQUENCE {
      sRNC-RelocationInfo-v390ext SRNC-RelocationInfo-v390ext-IEs,
      v3a0NonCriticalExtensions SEQUENCE {
        sRNC-RelocationInfo-v3a0ext SRNC-RelocationInfo-v3a0ext-IEs,
        v3b0NonCriticalExtensions SEQUENCE {
          sRNC-RelocationInfo-v3b0ext SRNC-RelocationInfo-v3b0ext-IEs,
          v3c0NonCriticalExtensions SEQUENCE {
            sRNC-RelocationInfo-v3c0ext SRNC-RelocationInfo-v3c0ext-IEs,
            laterNonCriticalExtensions SEQUENCE {
              sRNC-RelocationInfo-v3d0ext SRNC-RelocationInfo-v3d0ext-
IEs,
              -- Container for additional R99 extensions
              sRNC-RelocationInfo-r3-add-ext BIT STRING
              (CONTAINING SRNC-RelocationInfo-v3h0ext-IEs) OPTIONAL,
              v3g0NonCriticalExtensions SEQUENCE {
                sRNC-RelocationInfo-v3g0ext SRNC-RelocationInfo-v3g0ext-IEs,
                v4b0NonCriticalExtensions SEQUENCE {
                  sRNC-RelocationInfo-v4b0ext SRNC-RelocationInfo-v4b0ext-IEs,
                  v5xyNonCriticalExtensions SEQUENCE {
                    sRNC-RelocationInfo-v5xyext SRNC-RelocationInfo-v5xyext-IEs,
                    -- Reserved for future non critical extension
                    nonCriticalExtensions SEQUENCE {} OPTIONAL
                  } OPTIONAL
                } OPTIONAL
              } OPTIONAL
            } OPTIONAL
          } OPTIONAL
        } OPTIONAL
      } OPTIONAL
    } OPTIONAL
  },
  later-than-r3 CHOICE {
    r4 SEQUENCE {
      sRNC-RelocationInfo-r4 SRNC-RelocationInfo-r4-IEs,
      v4d0NonCriticalExtensions SEQUENCE {
        sRNC-RelocationInfo-v4c0ext SRNC-RelocationInfo-v4c0ext-IEs,
        -- Container for adding non critical extensions after freezing REL-5
        sRNC-RelocationInfo-r4-add-ext BIT STRING OPTIONAL,
        v5xyNonCriticalExtensions SEQUENCE {
          sRNC-RelocationInfo-v5xyext SRNC-RelocationInfo-v5xyext-IEs,
          nonCriticalExtensions SEQUENCE {} OPTIONAL
        } OPTIONAL
      } OPTIONAL
    },
    criticalExtensions CHOICE {
      r5 SEQUENCE {
        sRNC-RelocationInfo-r5 SRNC-RelocationInfo-r5-IEs,
        sRNC-RelocationInfo-r5-add-ext BIT STRING OPTIONAL,
        nonCriticalExtensions SEQUENCE {} OPTIONAL
      },
      criticalExtensions SEQUENCE {}
    }
  }
}

SRNC-RelocationInfo-r3-IEs ::= SEQUENCE {
  -- Non-RRC IEs
  stateOfRRC StateOfRRC,
  stateOfRRC-Procedure StateOfRRC-Procedure,
  -- Ciphering related information IEs
  -- If the extension v380 is included use the extension for the ciphering status per CN domain
  cipheringStatus CipheringStatus,
  calculationTimeForCiphering CalculationTimeForCiphering OPTIONAL,
  -- The order of occurrence in the IE cipheringInfoPerRB-List is the

```

```

-- same as the RBs in SRB-InformationSetupList in RAB-InformationSetupList.
-- The signalling RBs are supposed to be listed
-- first. Only UM and AM RBs that are ciphered are listed here
cipheringInfoPerRB-List      CipheringInfoPerRB-List      OPTIONAL,
count-C-List                 COUNT-C-List                 OPTIONAL,
integrityProtectionStatus    IntegrityProtectionStatus,
-- In the IE srb-SpecificIntegrityProtInfo, the first information listed corresponds to
-- signalling radio bearer RB0 and after the order of occurrence is the same as the SRBs in
-- SRB-InformationSetupList
srb-SpecificIntegrityProtInfo SRB-SpecificIntegrityProtInfoList,
implementationSpecificParams ImplementationSpecificParams OPTIONAL,
-- User equipment IEs
u-RNTI                       U-RNTI,
c-RNTI                       C-RNTI                       OPTIONAL,
ue-RadioAccessCapability     UE-RadioAccessCapability,
ue-Positioning-LastKnownPos  UE-Positioning-LastKnownPos  OPTIONAL,
-- Other IEs
ue-RATSpecificCapability     InterRAT-UE-RadioAccessCapabilityList OPTIONAL,
-- UTRAN mobility IEs
ura-Identity                 URA-Identity                 OPTIONAL,
-- Core network IEs
cn-CommonGSM-MAP-NAS-SysInfo NAS-SystemInformationGSM-MAP,
cn-DomainInformationList     CN-DomainInformationList     OPTIONAL,
-- Measurement IEs
ongoingMeasRepList          OngoingMeasRepList          OPTIONAL,
-- Radio bearer IEs
predefinedConfigStatusList  PredefinedConfigStatusList,
srb-InformationList         SRB-InformationSetupList,
rab-InformationList         RAB-InformationSetupList     OPTIONAL,
-- Transport channel IEs
ul-CommonTransChInfo        UL-CommonTransChInfo        OPTIONAL,
ul-TransChInfoList          UL-AddReconfTransChInfoList OPTIONAL,
modeSpecificInfo            CHOICE {
    fdd                       SEQUENCE {
        cpch-SetID            CPCH-SetID                  OPTIONAL,
        transChDRAC-Info      DRAC-StaticInformationList OPTIONAL
    },
    tdd                       NULL
},
dl-CommonTransChInfo        DL-CommonTransChInfo        OPTIONAL,
dl-TransChInfoList          DL-AddReconfTransChInfoList OPTIONAL,
-- Measurement report
measurementReport           MeasurementReport            OPTIONAL
}

SRNC-RelocationInfo-v380ext-IEs ::= SEQUENCE {
-- Ciphering related information IEs
cn-DomainIdentity           CN-DomainIdentity,
cipheringStatusList         CipheringStatusList
}

SRNC-RelocationInfo-v390ext-IEs ::= SEQUENCE {
cn-DomainInformationList-v390ext CN-DomainInformationList-v390ext OPTIONAL,
ue-RadioAccessCapability-v370ext UE-RadioAccessCapability-v370ext OPTIONAL,
ue-RadioAccessCapability-v380ext UE-RadioAccessCapability-v380ext OPTIONAL,
dl-PhysChCapabilityFDD-v380ext DL-PhysChCapabilityFDD-v380ext,
failureCauseWithProtErr      FailureCauseWithProtErr      OPTIONAL
}

SRNC-RelocationInfo-v3a0ext-IEs ::= SEQUENCE {
cipheringInfoForSRB1-v3a0ext CipheringInfoPerRB-List-v3a0ext,
ue-RadioAccessCapability-v3a0ext UE-RadioAccessCapability-v3a0ext OPTIONAL,
-- cn-domain identity for IE startValueForCiphering-v3a0ext is specified
-- in subsequent extension (SRNC-RelocationInfo-v3b0ext-IEs)
startValueForCiphering-v3a0ext START-Value
}

SRNC-RelocationInfo-v3b0ext-IEs ::= SEQUENCE {
-- cn-domain identity for IE startValueForCiphering-v3a0ext included in previous extension
cn-DomainIdentity           CN-DomainIdentity,
-- the IE startValueForCiphering-v3b0ext contains the start values for each CN Domain. The
-- value of start indicated by the IE startValueForCiphering-v3a0ext should be set to the
-- same value as the start-Value for the corresponding cn-DomainIdentity in the IE
-- startValueForCiphering-v3b0ext
startValueForCiphering-v3b0ext STARTList2 OPTIONAL
}

SRNC-RelocationInfo-v3c0ext-IEs ::= SEQUENCE {

```



```

-- IE rb-IdentityForHOMessage includes the identity of the RB used by the source SRNC
-- to send the message contained in the IE "TargetRNC-ToSourceRNC-Container".
-- Only included if type is "UE involved"
rb-IdentityForHOMessage          RB-Identity          OPTIONAL
}

SRNC-RelocationInfo-v3d0ext-IEs ::= SEQUENCE {
  -- User equipment IEs
  uESpecificBehaviourInformationIdle    UESpecificBehaviourInformationIdle    OPTIONAL,
  uESpecificBehaviourInformationInterRAT UESpecificBehaviourInformationInterRAT
  OPTIONAL
}

SRNC-RelocationInfo-v3g0ext-IEs ::= SEQUENCE {
  ue-RadioAccessCapability-v3g0ext      UE-RadioAccessCapability-v3g0ext      OPTIONAL
}

SRNC-RelocationInfo-v3h0ext-IEs ::= SEQUENCE {
  tpc-CombinationInfoList              TPC-CombinationInfoList              OPTIONAL,
  nonCriticalExtension                  SEQUENCE {}                          OPTIONAL
}

SRNC-RelocationInfo-v4c0ext-IEs ::= SEQUENCE {
  tpc-CombinationInfoList              TPC-CombinationInfoList              OPTIONAL
}

TPC-CombinationInfoList ::= SEQUENCE (SIZE (1..maxRL)) OF
  TPC-Combination-Info

STARTList2 ::=
  SEQUENCE (SIZE (2..maxCNdomains)) OF
  STARTSingle

SRNC-RelocationInfo-v4b0ext-IEs ::= SEQUENCE {
  ue-RadioAccessCapability-v4b0ext      UE-RadioAccessCapability-v4b0ext
}

SRNC-RelocationInfo-v5xyext-IEs ::= SEQUENCE {
  ue-RadioAccessCapability-v5xyext      UE-RadioAccessCapability-v5xyext,
  ue-RATSpecificCapability-v5xyext      InterRAT-UE-RadioAccessCapability-v5xyext  OPTIONAL
}

CipheringInfoPerRB-List-v3a0ext ::= SEQUENCE {
  dl-UM-SN                              BIT STRING (SIZE (7))
}

CipheringStatusList ::=
  SEQUENCE (SIZE (1..maxCNdomains)) OF
  CipheringStatusCNDomain

CipheringStatusCNDomain ::=
  SEQUENCE {
    cn-DomainIdentity                  CN-DomainIdentity,
    cipheringStatus                    CipheringStatus
  }

SRNC-RelocationInfo-r4-IEs ::=
  SEQUENCE {
    -- Non-RRC IEs
    -- IE rb-IdentityForHOMessage includes the identity of the RB used by the source SRNC
    -- to send the message contained in the IE "TargetRNC-ToSourceRNC-Container".
    -- Only included if type is "UE involved"
    rb-IdentityForHOMessage            RB-Identity                            OPTIONAL,
    stateOfRRC                        StateOfRRC,
    stateOfRRC-Procedure               StateOfRRC-Procedure,
    -- Ciphering related information IEs
    cipheringStatusList                CipheringStatusList-r4,
    latestConfiguredCN-Domain          CN-DomainIdentity,
    calculationTimeForCiphering        CalculationTimeForCiphering             OPTIONAL,
    count-C-List                       COUNT-C-List                           OPTIONAL,
    cipheringInfoPerRB-List            CipheringInfoPerRB-List-r4             OPTIONAL,
    -- Integrity protection related information IEs
    integrityProtectionStatus          IntegrityProtectionStatus,
    srb-SpecificIntegrityProtInfoList  SRB-SpecificIntegrityProtInfoList,
    implementationSpecificParams       ImplementationSpecificParams          OPTIONAL,
    -- User equipment IEs
    u-RNTI                             U-RNTI,
    c-RNTI                             C-RNTI                                OPTIONAL,
    ue-RadioAccessCapability            UE-RadioAccessCapability-r4,
    ue-RadioAccessCapability-ext        UE-RadioAccessCapabBandFDDList        OPTIONAL,
    ue-Positioning-LastKnownPos        UE-Positioning-LastKnownPos           OPTIONAL,
    uESpecificBehaviourInformationIdle  UESpecificBehaviourInformationIdle     OPTIONAL,
  }

```

```

    uESpecificBehaviourInformationInterRAT    UESpecificBehaviourInformationInterRAT
OPTIONAL,
-- Other IEs
  ue-RATSpecificCapability    InterRAT-UE-RadioAccessCapabilityList    OPTIONAL,
-- UTRAN mobility IEs
  ura-Identity                URA-Identity                                OPTIONAL,
-- Core network IEs
  cn-CommonGSM-MAP-NAS-SysInfo    NAS-SystemInformationGSM-MAP,
  cn-DomainInformationList        CN-DomainInformationListFull    OPTIONAL,
-- Measurement IEs
  ongoingMeasRepList            OngoingMeasRepList-r4          OPTIONAL,
-- Radio bearer IEs
  predefinedConfigStatusList      PredefinedConfigStatusList,
  srb-InformationList            SRB-InformationSetupList,
  rab-InformationList            RAB-InformationSetupList-r4      OPTIONAL,
-- Transport channel IEs
  ul-CommonTransChInfo          UL-CommonTransChInfo-r4        OPTIONAL,
  ul-TransChInfoList            UL-AddReconfTransChInfoList    OPTIONAL,
  modeSpecificInfo              CHOICE {
    fdd                          SEQUENCE {
      cpch-SetID                CPCH-SetID                      OPTIONAL,
      transChDRAC-Info          DRAC-StaticInformationList    OPTIONAL,
    },
    tdd                          NULL
  }
  dl-CommonTransChInfo          DL-CommonTransChInfo-r4        OPTIONAL,
  dl-TransChInfoList            DL-AddReconfTransChInfoList-r4  OPTIONAL,
-- Measurement report
  measurementReport              MeasurementReport                OPTIONAL,
  failureCause                   FailureCauseWithProtErr          OPTIONAL,
}

SRNC-RelocationInfo-r5-IEs ::= SEQUENCE {
  -- Non-RRC IEs
  -- IE rb-IdentityForHOMessage includes the identity of the RB used by the source SRNC
  -- to send the message contained in the IE "TargetRNC-ToSourceRNC-Container".
  -- Only included if type is "UE involved"
  rb-IdentityForHOMessage        RB-Identity                      OPTIONAL,
  stateOfRRC                    StateOfRRC,
  stateOfRRC-Procedure           StateOfRRC-Procedure,
  -- Ciphering related information IEs
  cipheringStatusList           CipheringStatusList-r4,
  latestConfiguredCN-Domain      CN-DomainIdentity,
  calculationTimeForCiphering     CalculationTimeForCiphering      OPTIONAL,
  count-C-List                  COUNT-C-List                     OPTIONAL,
  cipheringInfoPerRB-List        CipheringInfoPerRB-List-r4      OPTIONAL,
  -- Integrity protection related information IEs
  integrityProtectionStatus       IntegrityProtectionStatus,
  srb-SpecificIntegrityProtInfo   SRB-SpecificIntegrityProtInfoList OPTIONAL,
  implementationSpecificParams    ImplementationSpecificParams    OPTIONAL,
  -- User equipment IEs
  u-RNTI                        U-RNTI,
  c-RNTI                        C-RNTI                            OPTIONAL,
  ue-RadioAccessCapability        UE-RadioAccessCapability-r5,
  ue-RadioAccessCapability-ext     UE-RadioAccessCapabBandFDDList  OPTIONAL,
  ue-Positioning-LastKnownPos     UE-Positioning-LastKnownPos     OPTIONAL,
  uESpecificBehaviourInformationIdle
                                UESpecificBehaviourInformationIdle OPTIONAL,
  uESpecificBehaviourInformationInterRAT
                                UESpecificBehaviourInformationInterRAT OPTIONAL,
  -- Other IEs
  ue-RATSpecificCapability        InterRAT-UE-RadioAccessCapabilityList-r5 OPTIONAL,
  -- UTRAN mobility IEs
  ura-Identity                    URA-Identity                        OPTIONAL,
  -- Core network IEs
  cn-CommonGSM-MAP-NAS-SysInfo    NAS-SystemInformationGSM-MAP,
  cn-DomainInformationList        CN-DomainInformationListFull    OPTIONAL,
  -- Measurement IEs
  ongoingMeasRepList              OngoingMeasRepList-r5           OPTIONAL,
  -- Radio bearer IEs
  predefinedConfigStatusList      PredefinedConfigStatusList,
  srb-InformationList             SRB-InformationSetupList-r5,
  rab-InformationList             RAB-InformationSetupList-r5      OPTIONAL,
  -- Transport channel IEs
  ul-CommonTransChInfo           UL-CommonTransChInfo-r4         OPTIONAL,
  ul-TransChInfoList             UL-AddReconfTransChInfoList     OPTIONAL,
  modeSpecificInfo                CHOICE {
    fdd                          SEQUENCE {

```

cpch-SetID	CPCH-SetID	OPTIONAL,
transChDRAC-Info	DRAC-StaticInformationList	OPTIONAL
},		
tdd	NULL	
}		OPTIONAL,
dl-CommonTransChInfo	DL-CommonTransChInfo-r4	OPTIONAL,
dl-TransChInfoList	DL-AddReconfTransChInfoList-r5	OPTIONAL,
-- PhyCH IEs		
tpc-CombinationInfoList	TPC-CombinationInfoList	OPTIONAL,
-- Measurement report		
measurementReport	MeasurementReport	OPTIONAL,
-- Other IEs		
failureCause	FailureCauseWithProtErr	OPTIONAL
}		

-- IE definitions

```

CalculationTimeForCipherng ::= SEQUENCE {
    cell-Id          CellIdentity,
    sfn              INTEGER (0..4095)
}

CipherngInfoPerRB ::= SEQUENCE {
    dl-HFN          BIT STRING (SIZE (20..25)),
    ul-HFN          BIT STRING (SIZE (20..25))
}

CipherngInfoPerRB-r4 ::= SEQUENCE {
    rb-Identity     RB-Identity,
    dl-HFN          BIT STRING (SIZE (20..25)),
    dl-UM-SN        BIT STRING (SIZE (7))           OPTIONAL,
    ul-HFN          BIT STRING (SIZE (20..25))
}

-- TABULAR: CipherngInfoPerRB-List, multiplicity value numberOfRadioBearers
-- has been replaced with maxRB.
CipherngInfoPerRB-List ::= SEQUENCE (SIZE (1..maxRB)) OF
    CipherngInfoPerRB

CipherngInfoPerRB-List-r4 ::= SEQUENCE (SIZE (1..maxRB)) OF
    CipherngInfoPerRB-r4

CipherngStatus ::= ENUMERATED {
    started, notStarted }

CipherngStatusList-r4 ::= SEQUENCE (SIZE (1..maxCNDomains)) OF
    CipherngStatusCNDomain-r4

CipherngStatusCNDomain-r4 ::= SEQUENCE {
    cn-DomainIdentity CN-DomainIdentity,
    cipherngStatus    CipherngStatus,
    start-Value       START-Value
}

CN-DomainInformation-v390ext ::= SEQUENCE {
    cn-DRX-CycleLengthCoeff CN-DRX-CycleLengthCoefficient
}

CN-DomainInformationList-v390ext ::= SEQUENCE (SIZE (1..maxCNDomains)) OF
    CN-DomainInformation-v390ext

CompressedModeMeasCapability-r4 ::= SEQUENCE {
    fdd-Measurements      BOOLEAN,
    -- TABULAR: The IEs tdd-Measurements, gsm-Measurements and multiCarrierMeasurements
    -- are made optional since they are conditional based on another information element.
    -- Their absence corresponds to the case where the condition is not true.
    tdd384-Measurements   BOOLEAN           OPTIONAL,
    tdd128-Measurements   BOOLEAN           OPTIONAL,
    gsm-Measurements      GSM-Measurements  OPTIONAL,
    multiCarrierMeasurements BOOLEAN           OPTIONAL
}

COUNT-C-List ::= SEQUENCE (SIZE (1..maxCNDomains)) OF
    COUNT-C-List-Entry

COUNT-C-List-Entry ::= SEQUENCE {
    cn-DomainIdentity CN-DomainIdentity,

```

```

count-C BIT STRING (SIZE (32))
}

DL-PhysChCapabilityFDD-r4 ::= SEQUENCE {
maxNoDPCH-PDSCH-Codes INTEGER (1..8),
maxNoPhysChBitsReceived MaxNoPhysChBitsReceived,
supportForSF-512 BOOLEAN,
supportOfPDSCH BOOLEAN,
simultaneousSCCPCH-DPCH-Reception SimultaneousSCCPCH-DPCH-Reception,
supportOfDedicatedPilotsForChEstimation SupportOfDedicatedPilotsForChEstimation OPTIONAL
}

```

```

DL-PhysChCapabilityFDD-r5 ::= SEQUENCE {
maxNoDPCH-PDSCH-Codes INTEGER (1..8),
maxNoPhysChBitsReceived MaxNoPhysChBitsReceived,
supportForSF-512 BOOLEAN,
supportOfPDSCH BOOLEAN,
simultaneousSCCPCH-DPCH-Reception SimultaneousSCCPCH-DPCH-Reception,
supportOfDedicatedPilotsForChEstimation SupportOfDedicatedPilotsForChEstimation OPTIONAL,
fdd-hspdsch CHOICE {
supported SEQUENCE {
hdsch-physical-layer-category HSDSCH-physical-layer-category,
supportOfDedicatedPilotsForChannelEstimationOfHSDSCH BOOLEAN,
-- simultaneousSCCPCH-DPCH-HSDSCH-Reception shall be true only if the
-- IE SimultaneousSCCPCH-DPCH-Reception indicates support of simultaneous
-- reception of S-CCPCH and DPCH
simultaneousSCCPCH-DPCH-HSDSCH-Reception BOOLEAN
},
unsupported NULL
}
}
}

```

```

DL-PhysChCapabilityTDD-r5 ::= SEQUENCE {
maxTS-PerFrame MaxTS-PerFrame,
maxPhysChPerFrame MaxPhysChPerFrame,
minimumSF MinimumSF-DL,
supportOfPDSCH BOOLEAN,
maxPhysChPerTS MaxPhysChPerTS,
tdd384-hspdsch CHOICE {
supported HSDSCH-physical-layer-category,
unsupported NULL
}
}
}

```

```

DL-PhysChCapabilityTDD-LCR-r5 ::= SEQUENCE {
maxTS-PerSubFrame MaxTS-PerSubFrame-r4,
maxPhysChPerFrame MaxPhysChPerSubFrame-r4,
minimumSF MinimumSF-DL,
supportOfPDSCH BOOLEAN,
maxPhysChPerTS MaxPhysChPerTS,
supportOf8PSK BOOLEAN,
tdd128-hspdsch CHOICE {
supported HSDSCH-physical-layer-category,
unsupported NULL
}
}
}

```

```

DL-RFC3095-Context ::= SEQUENCE {
rfc3095-Context-Identity INTEGER (0..16383),
dl-mode ENUMERATED {u, o, r},
dl-ref-ir OCTET STRING ( SIZE (1..3000)),
dl-ref-time INTEGER (0..4294967295) OPTIONAL,
dl-curr-time INTEGER (0..4294967295) OPTIONAL,
dl-syn-offset-id INTEGER (0..65535) OPTIONAL,
dl-syn-slope-ts INTEGER (0..4294967295) OPTIONAL,
dl-dyn-changed BOOLEAN
}

```

```

ImplementationSpecificParams ::= BIT STRING (SIZE (1..512))

```

```

IntegrityProtectionStatus ::= ENUMERATED {
started, notStarted }

```

```

InterRAT-UE-RadioAccessCapabilityList-r5 ::= SEQUENCE {
interRAT-UE-RadioAccessCapability InterRAT-UE-RadioAccessCapabilityList,
geranIu-RadioAccessCapability GERANIu-RadioAccessCapability OPTIONAL
}

```

```

MaxHcContextSpace-r5 ::= ENUMERATED {
    by512, by1024, by2048, by4096, by8192,
    by16384, by32768, by65536, by131072 }

MeasurementCapability-r4 ::= SEQUENCE {
    downlinkCompressedMode CompressedModeMeasCapability-r4,
    uplinkCompressedMode   CompressedModeMeasCapability-r4
}

MeasurementCommandWithType ::= CHOICE {
    setup      MeasurementType,
    modify     NULL,
    release    NULL
}

MeasurementCommandWithType-r4 ::= CHOICE {
    setup      MeasurementType-r4,
    modify     NULL,
    release    NULL
}

OngoingMeasRep ::= SEQUENCE {
    measurementIdentity MeasurementIdentity,
    -- TABULAR: The CHOICE Measurement in the tabular description is included
    -- in MeasurementCommandWithType
    measurementCommandWithType MeasurementCommandWithType,
    measurementReportingMode   MeasurementReportingMode OPTIONAL,
    additionalMeasurementID-List AdditionalMeasurementID-List OPTIONAL
}

OngoingMeasRep-r4 ::= SEQUENCE {
    measurementIdentity MeasurementIdentity,
    -- TABULAR: The CHOICE Measurement in the tabular description is included
    -- in MeasurementCommandWithType-r4.
    measurementCommandWithType MeasurementCommandWithType-r4,
    measurementReportingMode   MeasurementReportingMode OPTIONAL,
    additionalMeasurementID-List AdditionalMeasurementID-List OPTIONAL
}

OngoingMeasRep-r5 ::= SEQUENCE {
    measurementIdentity MeasurementIdentity,
    -- TABULAR: The CHOICE Measurement in the tabular description is included
    -- in MeasurementCommandWithType-r4.
    measurementCommandWithType MeasurementCommandWithType-r4,
    measurementReportingMode   MeasurementReportingMode OPTIONAL,
    additionalMeasurementID-List AdditionalMeasurementID-List OPTIONAL,
    measurementCommand-v590ext CHOICE {
        -- the choice "intra-frequency" shall be used for the case of intra-frequency measurement,
        -- as well as when intra-frequency events are configured for inter-frequency measurement
        intra-frequency Intra-FreqEventCriteriaList-v590ext,
        inter-frequency Inter-FreqEventCriteriaList-v590ext
    } OPTIONAL,
    intraFreqReportingCriteria-1b-r5 IntraFreqReportingCriteria-1b-r5 OPTIONAL,
    intraFreqEvent-1d-r5 IntraFreqEvent-1d-r5 OPTIONAL
}

OngoingMeasRepList ::= SEQUENCE (SIZE (1..maxNoOfMeas)) OF
    OngoingMeasRep

OngoingMeasRepList-r4 ::= SEQUENCE (SIZE (1..maxNoOfMeas)) OF
    OngoingMeasRep-r4

OngoingMeasRepList-r5 ::= SEQUENCE (SIZE (1..maxNoOfMeas)) OF
    OngoingMeasRep-r5

PDCP-Capability-r4 ::= SEQUENCE {
    losslessSRNS-RelocationSupport BOOLEAN,
    supportForRfc2507 CHOICE {
        notSupported NULL,
        supported     MaxHcContextSpace
    },
    supportForRfc3095 CHOICE {
        notSupported NULL,
        supported     SEQUENCE {
            maxROHC-ContextSessions MaxROHC-ContextSessions-r4 DEFAULT s16,
            reverseCompressionDepth  INTEGER (0..65535) DEFAULT 0
        }
    }
}

```

```

}
}

```

```

PDCP-Capability-r5 ::= SEQUENCE {
  losslessSRNS-RelocationSupport    BOOLEAN,
  supportForRfc2507                  CHOICE {
    notSupported                      NULL,
    supported                          MaxHcContextSpace-r5
  },
  supportForRfc3095                  CHOICE {
    notSupported                      NULL,
    supported                          SEQUENCE {
      maxROHC-ContextSessions         MaxROHC-ContextSessions-r4  DEFAULT s16,
      reverseCompressionDepth         INTEGER (0..65535)           DEFAULT 0,
      supportForRfc3095ContextRelocation  BOOLEAN
    }
  }
}

```

```

PhysicalChannelCapability-r4 ::= SEQUENCE {
  fddPhysChCapability              SEQUENCE {
    downlinkPhysChCapability        DL-PhysChCapabilityFDD-r4,
    uplinkPhysChCapability          UL-PhysChCapabilityFDD
  } OPTIONAL,
  tdd384-PhysChCapability          SEQUENCE {
    downlinkPhysChCapability        DL-PhysChCapabilityTDD,
    uplinkPhysChCapability          UL-PhysChCapabilityTDD
  } OPTIONAL,
  tdd128-PhysChCapability          SEQUENCE {
    downlinkPhysChCapability        DL-PhysChCapabilityTDD-LCR-r4,
    uplinkPhysChCapability          UL-PhysChCapabilityTDD-LCR-r4
  } OPTIONAL
}

```

```

PhysicalChannelCapability-r5 ::= SEQUENCE {
  fddPhysChCapability              SEQUENCE {
    downlinkPhysChCapability        DL-PhysChCapabilityFDD-r5,
    uplinkPhysChCapability          UL-PhysChCapabilityFDD
  } OPTIONAL,
  tdd384-PhysChCapability          SEQUENCE {
    downlinkPhysChCapability        DL-PhysChCapabilityTDD-r5,
    uplinkPhysChCapability          UL-PhysChCapabilityTDD
  } OPTIONAL,
  tdd128-PhysChCapability          SEQUENCE {
    downlinkPhysChCapability        DL-PhysChCapabilityTDD-LCR-r5,
    uplinkPhysChCapability          UL-PhysChCapabilityTDD-LCR-r4
  } OPTIONAL
}

```

```

RF-Capability-r4 ::= SEQUENCE {
  fddRF-Capability                SEQUENCE {
    ue-PowerClass                  UE-PowerClassExt,
    txRxFrequencySeparation        TxRxFrequencySeparation
  } OPTIONAL,
  tdd384-RF-Capability            SEQUENCE {
    ue-PowerClass                  UE-PowerClassExt,
    radioFrequencyBandTDDList      RadioFrequencyBandTDDList,
    chipRateCapability              ChipRateCapability
  } OPTIONAL,
  tdd128-RF-Capability            SEQUENCE {
    ue-PowerClass                  UE-PowerClassExt,
    radioFrequencyBandTDDList      RadioFrequencyBandTDDList,
    chipRateCapability              ChipRateCapability
  } OPTIONAL
}

```

```

RFC3095-ContextInfo ::= SEQUENCE {
  rb-Identity                      RB-Identity,
  rfc3095-Context-List             RFC3095-Context-List
}

```

```

RFC3095-Context-List ::= SEQUENCE (SIZE (1..maxRFC3095-CID)) OF SEQUENCE {
  dl-RFC3095-Context               DL-RFC3095-Context    OPTIONAL,
  ul-RFC3095-Context               UL-RFC3095-Context    OPTIONAL
}

```

```

RLC-Capability-r5 ::= SEQUENCE {
  totalRLC-AM-BufferSize           TotalRLC-AM-BufferSize-r5,

```

```

maximumRLC-WindowSize                MaximumRLC-WindowSize,
maximumAM-EntityNumber                MaximumAM-EntityNumberRLC-Cap
}

SRB-SpecificIntegrityProtInfo ::= SEQUENCE {
    ul-RRC-HFN                        BIT STRING (SIZE (28)),
    dl-RRC-HFN                        BIT STRING (SIZE (28)),
    ul-RRC-SequenceNumber            RRC-MessageSequenceNumber,
    dl-RRC-SequenceNumber            RRC-MessageSequenceNumber
}

SRB-SpecificIntegrityProtInfoList ::= SEQUENCE (SIZE (4..maxSRBsetup)) OF
    SRB-SpecificIntegrityProtInfo

StateOfRRC ::= ENUMERATED {
    cell-DCH, cell-FACH,
    cell-PCH, ura-PCH }

StateOfRRC-Procedure ::= ENUMERATED {
    awaitNoRRC-Message,
    awaitRB-ReleaseComplete,
    awaitRB-SetupComplete,
    awaitRB-ReconfigurationComplete,
    awaitTransportCH-ReconfigurationComplete,
    awaitPhysicalCH-ReconfigurationComplete,
    awaitActiveSetUpdateComplete,
    awaitHandoverComplete,
    sendCellUpdateConfirm,
    sendUraUpdateConfirm,
    -- dummy is not used in this version of specification
    -- It should not be sent
    dummy,
    otherStates
}

TotalRLC-AM-BufferSize-r5 ::= ENUMERATED {
    kb10, kb50, kb100, kb150, kb200,
    kb300, kb400, kb500, kb750, kb1000 }

TPC-Combination-Info ::= SEQUENCE {
    primaryCPICH-Info                PrimaryCPICH-Info,
    tpc-CombinationIndex              TPC-CombinationIndex
}

UE-MultiModeRAT-Capability-r5 ::= SEQUENCE {
    multiRAT-CapabilityList          MultiRAT-Capability,
    multiModeCapability              MultiModeCapability,
    supportOfUTRAN-ToGERAN-NACC      BOOLEAN
}

UE-Positioning-Capability-r4 ::= SEQUENCE {
    standaloneLocMethodsSupported    BOOLEAN,
    ue-BasedOTDOA-Supported          BOOLEAN,
    networkAssistedGPS-Supported     NetworkAssistedGPS-Supported,
    supportForUE-GPS-TimingOfCellFrames    BOOLEAN,
    supportForIPDL                   BOOLEAN,
    rx-tx-TimeDifferenceType2Capable    BOOLEAN,
    validity-CellPCH-UraPCH           ENUMERATED { true (0) } OPTIONAL,
    sfn-sfnType2Capability            ENUMERATED { true } OPTIONAL
}

UE-Positioning-LastKnownPos ::= SEQUENCE {
    sfn                               INTEGER (0..4095),
    cell-id                           CellIdentity,
    positionEstimate                   PositionEstimate
}

UE-RadioAccessCapability-r4 ::= SEQUENCE {
    accessStratumReleaseIndicator     AccessStratumReleaseIndicator,
    pdcp-Capability                   PDCP-Capability-r4,
    rlc-Capability                     RLC-Capability,
    transportChannelCapability         TransportChannelCapability,
    rf-Capability                      RF-Capability-r4,
    physicalChannelCapability          PhysicalChannelCapability-r4,
    ue-MultiModeRAT-Capability         UE-MultiModeRAT-Capability,
    securityCapability                 SecurityCapability,
    ue-positioning-Capability          UE-Positioning-Capability-r4,
    measurementCapability              MeasurementCapability-r4    OPTIONAL
}

```

```

}
UE-RadioAccessCapability-r5 ::= SEQUENCE {
  accessStratumReleaseIndicator      AccessStratumReleaseIndicator,
  dl-CapabilityWithSimultaneousHS-DSCHConfig
  DL-CapabilityWithSimultaneousHS-DSCHConfig OPTIONAL,
  pdcp-Capability                    PDCP-Capability-r5,
  rlc-Capability                      RLC-Capability-r5,
  transportChannelCapability          TransportChannelCapability,
  rf-Capability                       RF-Capability-r4,
  physicalChannelCapability           PhysicalChannelCapability-r5,
  ue-MultiModeRAT-Capability          UE-MultiModeRAT-Capability-r5,
  securityCapability                  SecurityCapability,
  ue-positioning-Capability           UE-Positioning-Capability-r4,
  measurementCapability               MeasurementCapability-r4 OPTIONAL
}

```

```

UL-RFC3095-Context ::= SEQUENCE {
  rfc3095-Context-Identity           INTEGER (0..16383),
  ul-mode                             ENUMERATED {u, o, r},
  ul-ref-ir                            OCTET STRING ( SIZE (1..3000)),
  ul-ref-time                           INTEGER (0..4294967295) OPTIONAL,
  ul-curr-time                           INTEGER (0..4294967295) OPTIONAL,
  ul-syn-offset-id                       INTEGER (0..65535) OPTIONAL,
  ul-syn-slope-ts                         INTEGER (0..4294967295) OPTIONAL,
  ul-ref-sn-l                             INTEGER (0..65535) OPTIONAL
}

```

END

Next modified section

14.12 Provision and reception of RRC information between network nodes

:

14.12.4.2 SRNS RELOCATION INFO

This RRC message is sent between network nodes when preparing for an SRNS relocation or a handover/cell reselection from GERAN *Iu mode*.

With the presence or absence of the IE "RB identity for Hard Handover message" the source RNC indicates to the target SRNC whether the source RNC expects to receive the choice "DL DCCH message" in the IE "RRC information, target RNC to source RNC" in case the SRNS relocation is of type "UE involved". Furthermore the target RNC uses this information for the calculation of the MAC-I.

Direction: source RNC/RAT→target RNC

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Non RRC IEs				
≥RB identity for Handover message	OP		RB identity 10.3.4.16	Gives the id of the radio bearer on which the source RNC will transmit the RRC message in the case the relocation is of type "UE involved". In handover from GERAN <i>Iu mode</i> this IE is always set to 2.
>State of RRC	MP		RRC state indicator, 10.3.3.35a	
>State of RRC procedure	MP		Enumerated (await no RRC message, await RB Release Complete, await RB Setup Complete, await RB Reconfiguration Complete, await Transport CH Reconfiguration Complete, await Physical CH Reconfiguration Complete, await Active Set Update Complete, await Handover Complete, send Cell	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			Update Confirm, send URA Update Confirm, , others)	
Ciphering related information				
>Ciphering status for each CN domain	MP	<1 to maxCNDo mains>		
>>CN domain identity	MP		CN domain identity 10.3.1.1	
>>Ciphering status	MP		Enumerated(Not started, Started)	
>>START	MP		START 10.3.3.38	START value to be used in this CN domain.
>Latest configured CN domain	MP		CN domain identity 10.3.1.1	Value contained in the variable of the same name. In case this variable is empty, the source RNC can set any CN domain identity. In that case, the Ciphering status and the Integrity protection status should be Not started and the target RNC should not initialise the variable Latest configured CN domain.
>Calculation time for ciphering related information	CV- <i>Ciphering</i>			Time when the ciphering information of the message were calculated, relative to a cell of the target RNC. In handover and cell reselection from GERAN <i>lu mode</i> this field is not present.
>>Cell Identity	MP		Cell Identity 10.3.2.2	Identity of one of the cells under the target RNC and included in the active set of the current call
>>SFN	MP		Integer(0..4095)	
>COUNT-C list	OP	1 to <maxCNdo mains>		COUNT-C values for radio bearers using transparent mode RLC
>>CN domain identity	MP		CN domain identity 10.3.1.1	
>>COUNT-C	MP		Bit string(32)	
>Ciphering info per radio bearer	OP	1 to <maxRB>		For signalling radio bearers this IE is mandatory.
>>RB identity	MP		RB identity 10.3.4.16	
>>Downlink HFN	MP		Bit string(20..25)	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)
>>Downlink SN	CV- <i>SRB1</i>		Bit String(7)	VT(US) of RLC UM
>>Uplink HFN	MP		Bit string(20..25)	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)
Integrity protection related information				
>Integrity protection status	MP		Enumerated(Not started, Started)	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>Signalling radio bearer specific integrity protection information	CV-IP	4 to <maxSRBs etup>		
>>Uplink RRC HFN	MP		Bit string (28)	For each SRB, in the case activation times for the next IP configuration to be applied on this SRB have already been reached this IE corresponds to the last value used. Else this value corresponds to the value the source would have initialized the HFN to at the activation time. Increment of HFN due to RRC SN roll over is taken care of by target based on value sent by the source.
>>Downlink RRC HFN	MP		Bit string (28)	For each SRB, in the case activation times for the next IP configuration to be applied on this SRB have already been reached this IE corresponds to the last value used. Else this value corresponds to the value the source would have initialized the HFN to at the activation time. Increment of HFN due to RRC SN roll over is taken care of by target based on value sent by the source. In particular, for SRB2, this IE should not take into account the RRC message that will trigger the relocation.
>>Uplink RRC Message sequence number	MP		Integer (0..15)	For each SRB, this IE corresponds to the last value received or in the case activation time was not reached for a configuration the value equals (activation time - 1).
>>Downlink RRC Message sequence number	MP		Integer (0..15)	For each SRB, this IE corresponds to the last value used or in the case activation time was not reached for a configuration the value equals (activation time -1). In particular, for SRB2, this IE should not take into account the RRC message that will trigger the relocation.
>Implementation specific parameters	OP		Bit string (1..512)	
RRC IEs				
UE Information elements				
>U-RNTI	MP		U-RNTI 10.3.3.47	G-RNTI is placed in this field when performing handover or cell reselection from GERAN <i>lu mode</i> .
>C-RNTI	OP		C-RNTI 10.3.3.8	
>UE radio access Capability	MP		UE radio access capability 10.3.3.42	
>UE radio access capability	OP		UE radio	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
extension			access capability extension 10.3.3.42a	
>Last known UE position	OP			
>>SFN	MP		Integer (0..4095)	Time when position was estimated
>>Cell ID	MP		Cell identity; 10.3.2.2	Indicates the cell, the SFN is valid for.
>>CHOICE <i>Position estimate</i>	MP			
>>>Ellipsoid Point			Ellipsoid Point; 10.3.8.4a	
>>>Ellipsoid point with uncertainty circle			Ellipsoid point with uncertainty circle 10.3.8.4d	
>>>Ellipsoid point with uncertainty ellipse			Ellipsoid point with uncertainty ellipse 10.3.8.4e	
>>>Ellipsoid point with altitude			Ellipsoid point with altitude 10.3.8.4b	
>>>Ellipsoid point with altitude and uncertainty ellipsoid			Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8.4c	
>UE Specific Behaviour Information 1 idle	OP		UE Specific Behaviour Information idle 1 10.3.3.51	This IE should be included if received via the "INTER RAT HANDOVER INFO", the "RRC CONNECTION REQUEST", the IE "SRNS RELOCATION INFO" or the "Inter RAT Handover Info with Inter RAT Capabilities"
>UE Specific Behaviour Information 1 interRAT	OP		UE Specific Behaviour Information 1 interRAT 10.3.3.52	This IE should be included if received via the "INTER RAT HANDOVER INFO", the "RRC CONNECTION REQUEST", the IE "SRNS RELOCATION INFO" or the "Inter RAT Handover Info with Inter RAT Capabilities"
Other Information elements				
>UE system specific capability	OP	1 to <maxSystemCapability>		
>>Inter-RAT UE radio access capability	MP		Inter-RAT UE radio access capability 10.3.8.7	
UTRAN Mobility Information elements				
>URA Identifier	OP		URA identity 10.3.2.6	
CN Information Elements				
>CN common GSM-MAP NAS system information	MP		NAS system information	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			(GSM-MAP) 10.3.1.9	
>CN domain related information	OP	1 to <MaxCNdo mains>		CN related information to be provided for each CN domain
>>CN domain identity	MP			
>>CN domain specific GSM-MAP NAS system info	MP		NAS system information (GSM-MAP) 10.3.1.9	
>>CN domain specific DRX cycle length coefficient	MP		CN domain specific DRX cycle length coefficient, 10.3.3.6	
Measurement Related Information elements				
>For each ongoing measurement reporting	OP	1 to <MaxNoOf Meas>		
>>Measurement Identity	MP		Measurement identity 10.3.7.48	
>>Measurement Command	MP		Measurement command 10.3.7.46	
>>Measurement Type	<i>CV-Setup</i>		Measurement type 10.3.7.50	
>>Measurement Reporting Mode	OP		Measurement reporting mode 10.3.7.49	
>>Additional Measurements list	OP		Additional measurements list 10.3.7.1	
>>CHOICE <i>Measurement</i>	OP			
>>>Intra-frequency				
>>>>Intra-frequency cell info	OP		Intra-frequency cell info list 10.3.7.33	
>>>>Intra-frequency measurement quantity	OP		Intra-frequency measurement quantity 10.3.7.38	
>>>>Intra-frequency reporting quantity	OP		Intra-frequency reporting quantity 10.3.7.41	
>>>>Reporting cell status	OP		Reporting cell status 10.3.7.61	
>>>>Measurement validity	OP		Measurement validity 10.3.7.51	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>>Intra-frequency measurement reporting criteria			Intra-frequency measurement reporting criteria	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>>>>Periodical reporting			10.3.7.39 Periodical reporting criteria 10.3.7.53	
>>>>No reporting			NULL	
>>>Inter-frequency				
>>>>Inter-frequency cell info	OP		Inter-frequency cell info list 10.3.7.13	
>>>>Inter-frequency measurement quantity	OP		Inter-frequency measurement quantity 10.3.7.18	
>>>>Inter-frequency reporting quantity	OP		Inter-frequency reporting quantity 10.3.7.21	
>>>>Reporting cell status	OP		Reporting cell status 10.3.7.61	
>>>>Measurement validity	OP		Measurement validity 10.3.7.51	
>>>> Inter-frequency set update	OP		Inter-frequency set update 10.3.7.22	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>> Intra-frequency measurement reporting criteria			Intra-frequency measurement reporting criteria 10.3.7.39	
>>>>>Inter-frequency measurement reporting criteria			Inter-frequency measurement reporting criteria 10.3.7.19	
>>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>>No reporting			NULL	
>>>Inter-RAT				
>>>>Inter-RAT cell info	OP		Inter-RAT cell info list 10.3.7.23	
>>>>Inter-RAT measurement quantity	OP		Inter-RAT measurement quantity 10.3.7.29	
>>>>Inter-RAT reporting quantity	OP		Inter-RAT reporting quantity 10.3.7.32	
>>>>Reporting cell status	OP		Reporting cell status 10.3.7.61	
>>>>Measurement validity	OP		Measurement validity	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			t validity 10.3.7.51	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>Inter-RAT measurement reporting criteria			Inter-RAT measurement reporting criteria 10.3.7.30	
>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>No reporting			NULL	
>>>Traffic Volume				
>>>>Traffic volume measurement Object	OP		Traffic volume measurement object 10.3.7.70	
>>>>Traffic volume measurement quantity	OP		Traffic volume measurement quantity 10.3.7.71	
>>>>Traffic volume reporting quantity	OP		Traffic volume reporting quantity 10.3.7.74	
>>>>Measurement validity	OP		Measurement validity 10.3.7.51	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>>Traffic volume measurement reporting criteria			Traffic volume measurement reporting criteria 10.3.7.72	
>>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>>No reporting			NULL	
>>>Quality				
>>>>Quality measurement quantity Object	OP		Quality measurement quantity 10.3.7.59-object	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>>Quality measurement reporting criteria			Quality measurement reporting criteria 10.3.7.58	
>>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>>No reporting			NULL	
>>>UE internal				
>>>>UE internal measurement quantity	OP		UE internal measurement quantity	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>>>>UE internal reporting quantity	OP		10.3.7.79 UE internal reporting quantity 10.3.7.82	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>>UE internal measurement reporting criteria			UE internal measurement reporting criteria 10.3.7.80	
>>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>>No reporting			NULL	
>>>UE positioning				
>>>>LCS reporting quantity	OP		LCS reporting quantity 10.3.7.111	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>>LCS reporting criteria			LCS reporting criteria 10.3.7.110	
>>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>>No reporting				
Radio Bearer Information Elements				
>Predefined configuration status information	OP		Predefined configuration status information 10.3.4.5a	
>Signalling RB information list	MP	1 to <maxSRBs etup>		For each signalling radio bearer
>>Signalling RB information	MP		Signalling RB information to setup 10.3.4.24	
>RAB information list	OP	1 to <maxRABs etup>		Information for each RAB
>>RAB information	MP		RAB information to setup 10.3.4.10	
Transport Channel Information Elements				
Uplink transport channels				
>UL Transport channel information common for all transport channels	OP		UL Transport channel information common for all transport channels 10.3.5.24	
>UL transport channel information list	OP	1 to <MaxTrCH		

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>>UL transport channel information	MP	>	Added or reconfigured UL TrCH information 10.3.5.2	
>CHOICE mode	OP			
>>FDD				
>>>CPCH set ID	OP		CPCH set ID 10.3.5.5	
>>>>Transport channel information for DRAC list	OP	1 to <MaxTrCH >		
>>>>>DRAC static information	MP		DRAC static information 10.3.5.7	
>>TDD				(no data)
Downlink transport channels				
>DL Transport channel information common for all transport channels	OP		DL Transport channel information common for all transport channels 10.3.5.6	
>DL transport channel information list	OP	1 to <MaxTrCH >		
>>DL transport channel information	MP		Added or reconfigured DL TrCH information 10.3.5.1	
>Measurement report	OP		MEASUREMENT REPORT 10.2.17	
Other Information elements				
PhyCH information elements				
>TPC Combination Info list	OP	1 to <maxRL>		
>>Primary CPICH info	MP		Primary CPICH info 10.3.6.60	
>>>TPC combination index	MP		TPC combination index 10.3.6.85	
Other Information elements				
>Measurement report	OP		MEASUREMENT REPORT 10.2.19	
>Failure cause	OP		Failure cause 10.3.3.13	Diagnostics information related to an earlier SRNC Relocation request (see NOTE 2 in 14.12.0a)
>Protocol error information	CV-ProtErr		Protocol error information 10.3.8.12	

Multi Bound	Explanation
MaxNoOfMeas	Maximum number of active measurements, upper limit 16

Condition	Explanation
<i>Setup</i>	The IE is mandatory present when the IE Measurement command has the value "Setup", otherwise the IE is not needed.
<i>Ciphering</i>	The IE is mandatory present when the IE Ciphering Status has the value "started" and the ciphering counters need not be reinitialised, otherwise the IE is not needed.
<i>IP</i>	The IE is mandatory present when the IE Integrity protection status has the value "started" and the integrity protection counters need not be reinitialised, otherwise the IE is not needed.
<i>ProtErr</i>	This IE is mandatory present if the IE "Protocol error indicator" is included and has the value "TRUE". Otherwise it is not needed.
<i>SRB1</i>	The IE is mandatory present for RB1. Otherwise it is not needed.

CHANGE REQUEST

⌘ **25.331 CR 2323** ⌘ rev **-** ⌘ Current version: **6.1.0** ⌘

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Clean up of SRNS Relocation Info REL-5 version		
Source:	⌘ RAN WG2		
Work item code:	⌘ TEI5	Date:	⌘ 14/05/2004
Category:	⌘ A	Release:	⌘ REL-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2	(GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R96	(Release 1996)
	B (addition of feature),	R97	(Release 1997)
	C (functional modification of feature)	R98	(Release 1998)
	D (editorial modification)	R99	(Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-4	(Release 4)
		Rel-5	(Release 5)
		Rel-6	(Release 6)

Reason for change: ⌘ The SRNS Relocation Info message needs to be updated in order to reflect the changes that have been made to the RRC protocol in REL-5.

The element "sfn-sfnType2Capability" is missing in the current r4 branch of the PDU "SRNC-RelocationInfo-r3".

Summary of change: ⌘ **The following main changes are made:**

An r5 critical extension is introduced in the PDU "SRNC-RelocationInfo-r3", including an r5 set of IEs, an optional VLEC and an optional non-critical extension. This allows a structured way for reuse of a number of r5 IEs defined for the RRC protocol, in particular for the representation of HSDPA options.

The missing UE positioning capability parameter "sfn-sfnType2Capability" is appended to the IE "UE-Positioning-Capability-r4".

The following new (r5) IEs are defined to be used in the new r5 branch of the PDU: "DL-PhysChCapabilityFDD-r5", "DL-PhysChCapabilityTDD-r5", "DL-PhysChCapabilityTDD-LCR-r5", "InterRAT-UE-RadioAccessCapabilityList-r5", "MaxHcContextSpace-r5", "OngoingMeasRep-r5", "OngoingMeasRepList-r5", "PDCP-Capability-r5", "PhysicalChannelCapability-r5", "RLC-Capability-r5", "TotalRLC-AM-BufferSize-r5", "UE-MultiModeRAT-Capability-r5", "UE-Positioning-Capability-r5" and "UE-RadioAccessCapability-r5".

The tabular representation of the SRNS RELOCATION INFO is updated and, in particular in the "Measurement Related IEs", aligned with the MEASUREMENT CONTROL message. (Both messages already share substantial parts of the

same ASN.1 in this area.)

A few merely editorial alignments are made in the tabular representation of the SRNS RELOCATION INFO.

A small correction is done in the IE "MeasurementControl-v5xyext-IEs" in the PDU definition of the RRC messages.

Consequences if not approved:

⌘ The SRNS relocation procedure would not support a number of REL-5 features.

Isolated impact analysis:

These corrections do not affect the UE.

The correction needs to be implemented by both the source and the target RNC, if the REL-4 or REL-5 branch of the PDU "SRNC-RelocationInfo-r3" shall be used in the SRNS relocation procedure.

The R99 branch is not affected and may be used as a fallback, if both RNCs have not implemented the corrections. (It is assumed that this could be arranged by an operator dependent configuration.)

Clauses affected: ⌘ 11.2, 11.5, 14.12.4.2

Other specs affected:

Y	N		
	X	Other core specifications	⌘
	X	Test specifications	
	X	O&M Specifications	

Other comments: ⌘

11.2 PDU definitions

:

```

MeasurementControl-v5xyext-IEs ::= SEQUENCE {
  measurementCommand-v5xyext CHOICE {
    -- the choice "intra-frequency" shall be used for the case of intra-frequency measurement,
    -- as well as when intra-frequency events are configured for inter-frequency measurement
    intra-frequency          Intra-FreqEventCriteriaList-v5xyext,
    inter-frequency          Inter-FreqEventCriteriaList-v5xyext
  }
  OPTIONAL,
  intraFreqReportingCriteria-lb-r5      IntraFreqReportingCriteria-lb-r5      OPTIONAL,
  intraFreqEvent-lb-r5                  IntraFreqEvent-lb-r5                  OPTIONAL,
  -- most significant part of "RRC transaction identifier" (MSP),
  -- "RRC transaction identifier" = rrc-TransactionIdentifier-MSP-v5xyext * 4 +
  -- rrc-TransactionIdentifier
  rrc-TransactionIdentifier-MSP-v5xyext RRC-TransactionIdentifier
}

```

Next modified section

11.5 RRC information between network nodes

Internode-definitions DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

HandoverToUTRANCommand,
MeasurementReport,
PhysicalChannelReconfiguration,
RadioBearerReconfiguration,
RadioBearerRelease,
RadioBearerSetup,
RRC-FailureInfo,
TransportChannelReconfiguration

FROM PDU-definitions

```
-- Core Network IEs :
  CN-DomainIdentity,
  CN-DomainInformationList,
  CN-DomainInformationListFull,
  CN-DRX-CycleLengthCoefficient,
  NAS-SystemInformationGSM-MAP,
-- UTRAN Mobility IEs :
  CellIdentity,
  URA-Identity,
-- User Equipment IEs :
  AccessStratumReleaseIndicator,
  C-RNTI,
  ChipRateCapability,
  DL-CapabilityWithSimultaneousHS-DSCHConfig,
  DL-PhysChCapabilityFDD-v380ext,
  DL-PhysChCapabilityTDD,
  DL-PhysChCapabilityTDD-LCR-r4,
  GSM-Measurements,
  HSDSCH-physical-layer-category,
  FailureCauseWithProtErr,
  MaxHcContextSpace,
  MaximumAM-EntityNumberRLC-Cap,
  MaximumRLC-WindowSize,
  MaxNoPhysChBitsReceived,
  MaxPhysChPerFrame,
  MaxPhysChPerSubFrame-r4,
  MaxPhysChPerTS,
  MaxROHC-ContextSessions-r4,
  MaxTS-PerFrame,
  MaxTS-PerSubFrame-r4,
  MinimumSF-DL,
  MultiModeCapability,
  MultiRAT-Capability,
  NetworkAssistedGPS-Supported,
  RadioFrequencyBandTDDList,
  RLC-Capability,
  RRC-MessageSequenceNumber,
  SecurityCapability,
  SimultaneousSCCPCH-DPCH-Reception,
  STARTList,
  STARTSingle,
  START-Value,
  SupportOfDedicatedPilotsForChEstimation,
  TransportChannelCapability,
  TxRxFrequencySeparation,
  U-RNTI,
  UE-MultiModeRAT-Capability,
  UE-PowerClassExt,
  UE-RadioAccessCapabBandFDDList,
  UE-RadioAccessCapability,
  UE-RadioAccessCapability-v370ext,
  UE-RadioAccessCapability-v380ext,
  UE-RadioAccessCapability-v3a0ext,
  UE-RadioAccessCapability-v3g0ext,
  UE-RadioAccessCapability-v4b0ext,
```

```

    UE-RadioAccessCapability-v5xyext,
    UL-PhysChCapabilityFDD,
    UL-PhysChCapabilityTDD,
    UL-PhysChCapabilityTDD-LCR-r4,
-- Radio Bearer IEs :
    PredefinedConfigStatusList,
    PredefinedConfigValueTag,
    RAB-InformationSetupList,
    RAB-InformationSetupList-r4,
| RAB-InformationSetupList-r5,
    RB-Identity,
    SRB-InformationSetupList,
| SRB-InformationSetupList-r5,
-- Transport Channel IEs :
    CPCH-SetID,
    DL-CommonTransChInfo,
    DL-CommonTransChInfo-r4,
    DL-AddReconfTransChInfoList,
    DL-AddReconfTransChInfoList-r4,
| DL-AddReconfTransChInfoList-r5,
    DRAC-StaticInformationList,
    UL-CommonTransChInfo,
    UL-CommonTransChInfo-r4,
    UL-AddReconfTransChInfoList,
-- Physical Channel IEs :
    PrimaryCPICH-Info,
    TPC-CombinationIndex,
-- Measurement IEs :
| Inter-FreqEventCriteriaList-v590ext,
| Intra-FreqEventCriteriaList-v590ext,
| IntraFreqEvent-ld-r5,
| IntraFreqReportingCriteria-1b-r5,
    MeasurementIdentity,
    MeasurementReportingMode,
    MeasurementType,
    MeasurementType-r4,
    AdditionalMeasurementID-List,
    PositionEstimate,
-- Other IEs :
| GERANlu-RadioAccessCapability
    InterRAT-UE-RadioAccessCapabilityList,
    InterRAT-UE-RadioAccessCapability-v5xyext,
    UESpecificBehaviourInformationIdle,
    UESpecificBehaviourInformationInterRAT

FROM InformationElements

    maxCNdomains,
    maxNoOfMeas,

    maxRB,
    maxRBallRABs,
    maxRFC3095-CID,
    maxSRBsetup,
    maxRL

FROM Constant-definitions
;

-- Part 1: Class definitions similar to what has been defined in 11.1 for RRC messages
-- Information that is transferred in the same direction and across the same path is grouped

-- *****
--
-- RRC information, to target RNC
--
-- *****
-- RRC Information to target RNC sent either from source RNC or from another RAT

ToTargetRNC-Container ::= CHOICE {
    interRATHandoverInfo          InterRATHandoverInfoWithInterRATCapabilities-r3,
    srncRelocation                SRNC-RelocationInfo-r3,
    rfc3095-ContextInfo           RFC3095-ContextInfo-r5,
    extension                     NULL
}

-- *****
--
-- RRC information, target RNC to source RNC

```

```

--
-- *****

TargetRNC-ToSourceRNC-Container ::= CHOICE {
    radioBearerSetup          RadioBearerSetup,
    radioBearerReconfiguration RadioBearerReconfiguration,
    radioBearerRelease        RadioBearerRelease,
    transportChannelReconfiguration TransportChannelReconfiguration,
    physicalChannelReconfiguration PhysicalChannelReconfiguration,
    rrc-FailureInfo           RRC-FailureInfo,
    -- IE dl-DCCHmessage consists of an octet string that includes the IE DL-DCCH-Message
    dl-DCCHmessage           OCTET STRING,
    extension                 NULL
}

-- Part 2: Container definitions, similar to the PDU definitions in 11.2 for RRC messages
-- In alphabetical order

-- *****
--
-- Handover to UTRAN information
--
-- *****

InterRATHandoverInfoWithInterRATCapabilities-r3 ::= CHOICE {
    r3 SEQUENCE {
        -- IE InterRATHandoverInfoWithInterRATCapabilities-r3-IEs also
        -- includes non critical extensions
        interRATHandoverInfo-r3 InterRATHandoverInfoWithInterRATCapabilities-r3-IEs,
        v390NonCriticalExtensions SEQUENCE {
            interRATHandoverInfoWithInterRATCapabilities-v390ext
        }
        InterRATHandoverInfoWithInterRATCapabilities-v390ext-IEs,
        -- Reserved for future non critical extension
        nonCriticalExtensions SEQUENCE {} OPTIONAL
    },
    criticalExtensions SEQUENCE {}
}

InterRATHandoverInfoWithInterRATCapabilities-r3-IEs ::= SEQUENCE {
    -- The order of the IEs may not reflect the tabular format
    -- but has been chosen to simplify the handling of the information in the BSC
    -- Other IEs
    ue-RATSpecificCapability InterRAT-UE-RadioAccessCapabilityList OPTIONAL,
    -- interRATHandoverInfo, Octet string is used to obtain 8 bit length field prior to
    -- actual information. This makes it possible for BSS to transparently handle information
    -- received via GSM air interface even when it includes non critical extensions.
    -- The octet string shall include the InterRATHandoverInfo information
    -- The BSS can re-use the 04.18 length field received from the MS
    interRATHandoverInfo OCTET STRING (SIZE (0..255))
}

InterRATHandoverInfoWithInterRATCapabilities-v390ext-IEs ::= SEQUENCE {
    -- User equipment IEs
    failureCauseWithProtErr FailureCauseWithProtErr OPTIONAL
}

-- *****
--
-- RFC3095 context, source RNC to target RNC
--
-- *****

RFC3095-ContextInfo-r5 ::= CHOICE {
    r5 SEQUENCE {
        rfc3095-ContextInfoList-r5 RFC3095-ContextInfoList-r5,
        -- Reserved for future non critical extension
        nonCriticalExtensions SEQUENCE {} OPTIONAL
    },
    criticalExtensions SEQUENCE {}
}

RFC3095-ContextInfoList-r5 ::= SEQUENCE (SIZE (1..maxRBallRABs)) OF
    RFC3095-ContextInfo

```



```

-- *****
--
-- SRNC Relocation information
--
-- *****

SRNC-RelocationInfo-r3 ::= CHOICE {
  r3 SEQUENCE {
    sRNC-RelocationInfo-r3 SRNC-RelocationInfo-r3-IEs,
    v380NonCriticalExtensions SEQUENCE {
      sRNC-RelocationInfo-v380ext SRNC-RelocationInfo-v380ext-IEs,
      -- Reserved for future non critical extension
    },
    v390NonCriticalExtensions SEQUENCE {
      sRNC-RelocationInfo-v390ext SRNC-RelocationInfo-v390ext-IEs,
      v3a0NonCriticalExtensions SEQUENCE {
        sRNC-RelocationInfo-v3a0ext SRNC-RelocationInfo-v3a0ext-IEs,
        v3b0NonCriticalExtensions SEQUENCE {
          sRNC-RelocationInfo-v3b0ext SRNC-RelocationInfo-v3b0ext-IEs,
          v3c0NonCriticalExtensions SEQUENCE {
            sRNC-RelocationInfo-v3c0ext SRNC-RelocationInfo-v3c0ext-IEs,
            laterNonCriticalExtensions SEQUENCE {
              sRNC-RelocationInfo-v3d0ext SRNC-RelocationInfo-v3d0ext-
IEs,
              -- Container for additional R99 extensions
              sRNC-RelocationInfo-r3-add-ext BIT STRING
              (CONTAINING SRNC-RelocationInfo-v3h0ext-IEs) OPTIONAL,
              v3g0NonCriticalExtensions SEQUENCE {
                sRNC-RelocationInfo-v3g0ext SRNC-RelocationInfo-v3g0ext-IEs,
                v4b0NonCriticalExtensions SEQUENCE {
                  sRNC-RelocationInfo-v4b0ext SRNC-RelocationInfo-v4b0ext-IEs,
                  v5xyNonCriticalExtensions SEQUENCE {
                    sRNC-RelocationInfo-v5xyext SRNC-RelocationInfo-v5xyext-IEs,
                    -- Reserved for future non critical extension
                    nonCriticalExtensions SEQUENCE {} OPTIONAL
                  } OPTIONAL
                } OPTIONAL
              } OPTIONAL
            } OPTIONAL
          } OPTIONAL
        } OPTIONAL
      } OPTIONAL
    },
    later-than-r3 CHOICE {
      r4 SEQUENCE {
        sRNC-RelocationInfo-r4 SRNC-RelocationInfo-r4-IEs,
        v4d0NonCriticalExtensions SEQUENCE {
          sRNC-RelocationInfo-v4c0ext SRNC-RelocationInfo-v4c0ext-IEs,
          -- Container for adding non critical extensions after freezing REL-5
          sRNC-RelocationInfo-r4-add-ext BIT STRING OPTIONAL,
          v5xyNonCriticalExtensions SEQUENCE {
            sRNC-RelocationInfo-v5xyext SRNC-RelocationInfo-v5xyext-IEs,
            nonCriticalExtensions SEQUENCE {} OPTIONAL
          } OPTIONAL
        } OPTIONAL
      },
      criticalExtensions CHOICE {
        r5 SEQUENCE {
          sRNC-RelocationInfo-r5 SRNC-RelocationInfo-r5-IEs,
          sRNC-RelocationInfo-r5-add-ext BIT STRING OPTIONAL,
          nonCriticalExtensions SEQUENCE {} OPTIONAL
        },
        criticalExtensions SEQUENCE {}
      }
    }
  },
  criticalExtensions SEQUENCE {}
}

SRNC-RelocationInfo-r3-IEs ::= SEQUENCE {
  -- Non-RRC IEs
  stateOfRRC StateOfRRC,
  stateOfRRC-Procedure StateOfRRC-Procedure,
  -- Ciphering related information IEs
  -- If the extension v380 is included use the extension for the ciphering status per CN domain
  cipheringStatus CipheringStatus,
  calculationTimeForCiphering CalculationTimeForCiphering OPTIONAL,
  -- The order of occurrence in the IE cipheringInfoPerRB-List is the

```

```

-- same as the RBs in SRB-InformationSetupList in RAB-InformationSetupList.
-- The signalling RBs are supposed to be listed
-- first. Only UM and AM RBs that are ciphered are listed here
cipheringInfoPerRB-List      CipheringInfoPerRB-List      OPTIONAL,
count-C-List                 COUNT-C-List                 OPTIONAL,
integrityProtectionStatus    IntegrityProtectionStatus,
-- In the IE srb-SpecificIntegrityProtInfo, the first information listed corresponds to
-- signalling radio bearer RB0 and after the order of occurrence is the same as the SRBs in
-- SRB-InformationSetupList
srb-SpecificIntegrityProtInfo SRB-SpecificIntegrityProtInfoList,
implementationSpecificParams ImplementationSpecificParams OPTIONAL,
-- User equipment IEs
u-RNTI                       U-RNTI,
c-RNTI                       C-RNTI                       OPTIONAL,
ue-RadioAccessCapability     UE-RadioAccessCapability,
ue-Positioning-LastKnownPos  UE-Positioning-LastKnownPos  OPTIONAL,
-- Other IEs
ue-RATSpecificCapability     InterRAT-UE-RadioAccessCapabilityList OPTIONAL,
-- UTRAN mobility IEs
ura-Identity                 URA-Identity                 OPTIONAL,
-- Core network IEs
cn-CommonGSM-MAP-NAS-SysInfo NAS-SystemInformationGSM-MAP,
cn-DomainInformationList     CN-DomainInformationList     OPTIONAL,
-- Measurement IEs
ongoingMeasRepList          OngoingMeasRepList          OPTIONAL,
-- Radio bearer IEs
predefinedConfigStatusList   PredefinedConfigStatusList,
srb-InformationList          SRB-InformationSetupList,
rab-InformationList          RAB-InformationSetupList     OPTIONAL,
-- Transport channel IEs
ul-CommonTransChInfo        UL-CommonTransChInfo        OPTIONAL,
ul-TransChInfoList          UL-AddReconfTransChInfoList OPTIONAL,
modeSpecificInfo             CHOICE {
    fdd                       SEQUENCE {
        cpch-SetID            CPCH-SetID                   OPTIONAL,
        transChDRAC-Info      DRAC-StaticInformationList  OPTIONAL
    },
    tdd                       NULL
},
dl-CommonTransChInfo        DL-CommonTransChInfo        OPTIONAL,
dl-TransChInfoList          DL-AddReconfTransChInfoList OPTIONAL,
-- Measurement report
measurementReport            MeasurementReport            OPTIONAL
}

SRNC-RelocationInfo-v380ext-IEs ::= SEQUENCE {
-- Ciphering related information IEs
cn-DomainIdentity           CN-DomainIdentity,
cipheringStatusList         CipheringStatusList
}

SRNC-RelocationInfo-v390ext-IEs ::= SEQUENCE {
cn-DomainInformationList-v390ext  CN-DomainInformationList-v390ext  OPTIONAL,
ue-RadioAccessCapability-v370ext  UE-RadioAccessCapability-v370ext  OPTIONAL,
ue-RadioAccessCapability-v380ext  UE-RadioAccessCapability-v380ext  OPTIONAL,
dl-PhysChCapabilityFDD-v380ext    DL-PhysChCapabilityFDD-v380ext,
failureCauseWithProtErr          FailureCauseWithProtErr          OPTIONAL
}

SRNC-RelocationInfo-v3a0ext-IEs ::= SEQUENCE {
cipheringInfoForSRB1-v3a0ext      CipheringInfoPerRB-List-v3a0ext,
ue-RadioAccessCapability-v3a0ext  UE-RadioAccessCapability-v3a0ext  OPTIONAL,
-- cn-domain identity for IE startValueForCiphering-v3a0ext is specified
-- in subsequent extension (SRNC-RelocationInfo-v3b0ext-IEs)
startValueForCiphering-v3a0ext    START-Value
}

SRNC-RelocationInfo-v3b0ext-IEs ::= SEQUENCE {
-- cn-domain identity for IE startValueForCiphering-v3a0ext included in previous extension
cn-DomainIdentity               CN-DomainIdentity,
-- the IE startValueForCiphering-v3b0ext contains the start values for each CN Domain. The
-- value of start indicated by the IE startValueForCiphering-v3a0ext should be set to the
-- same value as the start-Value for the corresponding cn-DomainIdentity in the IE
-- startValueForCiphering-v3b0ext
startValueForCiphering-v3b0ext    STARTList2                        OPTIONAL
}

SRNC-RelocationInfo-v3c0ext-IEs ::= SEQUENCE {

```

```

-- IE rb-IdentityForHOMessage includes the identity of the RB used by the source SRNC
-- to send the message contained in the IE "TargetRNC-ToSourceRNC-Container".
-- Only included if type is "UE involved"
rb-IdentityForHOMessage          RB-Identity          OPTIONAL
}

SRNC-RelocationInfo-v3d0ext-IEs ::= SEQUENCE {
  -- User equipment IEs
  uESpecificBehaviourInformationIdle    UESpecificBehaviourInformationIdle    OPTIONAL,
  uESpecificBehaviourInformationInterRAT UESpecificBehaviourInformationInterRAT
  OPTIONAL
}

SRNC-RelocationInfo-v3g0ext-IEs ::= SEQUENCE {
  ue-RadioAccessCapability-v3g0ext      UE-RadioAccessCapability-v3g0ext      OPTIONAL
}

SRNC-RelocationInfo-v3h0ext-IEs ::= SEQUENCE {
  tpc-CombinationInfoList                TPC-CombinationInfoList                OPTIONAL,
  nonCriticalExtension                    SEQUENCE {}                            OPTIONAL
}

SRNC-RelocationInfo-v4c0ext-IEs ::= SEQUENCE {
  tpc-CombinationInfoList                TPC-CombinationInfoList                OPTIONAL
}

TPC-CombinationInfoList ::= SEQUENCE (SIZE (1..maxRL)) OF
  TPC-Combination-Info

STARTList2 ::=
  SEQUENCE (SIZE (2..maxCNdomains)) OF
  STARTSingle

SRNC-RelocationInfo-v4b0ext-IEs ::= SEQUENCE {
  ue-RadioAccessCapability-v4b0ext      UE-RadioAccessCapability-v4b0ext
}

SRNC-RelocationInfo-v5xyext-IEs ::= SEQUENCE {
  ue-RadioAccessCapability-v5xyext      UE-RadioAccessCapability-v5xyext,
  ue-RATSpecificCapability-v5xyext      InterRAT-UE-RadioAccessCapability-v5xyext  OPTIONAL
}

CipheringInfoPerRB-List-v3a0ext ::= SEQUENCE {
  dl-UM-SN                               BIT STRING (SIZE (7))
}

CipheringStatusList ::=
  SEQUENCE (SIZE (1..maxCNdomains)) OF
  CipheringStatusCNDomain

CipheringStatusCNDomain ::=
  SEQUENCE {
    cn-DomainIdentity                    CN-DomainIdentity,
    cipheringStatus                       CipheringStatus
  }

SRNC-RelocationInfo-r4-IEs ::=
  SEQUENCE {
    -- Non-RRC IEs
    -- IE rb-IdentityForHOMessage includes the identity of the RB used by the source SRNC
    -- to send the message contained in the IE "TargetRNC-ToSourceRNC-Container".
    -- Only included if type is "UE involved"
    rb-IdentityForHOMessage              RB-Identity                              OPTIONAL,
    stateOfRRC                           StateOfRRC,
    stateOfRRC-Procedure                  StateOfRRC-Procedure,
    -- Ciphering related information IEs
    cipheringStatusList                  CipheringStatusList-r4,
    latestConfiguredCN-Domain            CN-DomainIdentity,
    calculationTimeForCiphering           CalculationTimeForCiphering                OPTIONAL,
    count-C-List                          COUNT-C-List                              OPTIONAL,
    cipheringInfoPerRB-List               CipheringInfoPerRB-List-r4                OPTIONAL,
    -- Integrity protection related information IEs
    integrityProtectionStatus             IntegrityProtectionStatus,
    srb-SpecificIntegrityProtInfoList     SRB-SpecificIntegrityProtInfoList,
    implementationSpecificParams          ImplementationSpecificParams              OPTIONAL,
    -- User equipment IEs
    u-RNTI                                 U-RNTI,
    c-RNTI                                 C-RNTI                                    OPTIONAL,
    ue-RadioAccessCapability               UE-RadioAccessCapability-r4,
    ue-RadioAccessCapability-ext           UE-RadioAccessCapabBandFDDList           OPTIONAL,
    ue-Positioning-LastKnownPos           UE-Positioning-LastKnownPos              OPTIONAL,
    uESpecificBehaviourInformationIdle     UESpecificBehaviourInformationIdle        OPTIONAL,
  }

```

```

    uESpecificBehaviourInformationInterRAT      UESpecificBehaviourInformationInterRAT
OPTIONAL,
-- Other IEs
  ue-RATSpecificCapability      InterRAT-UE-RadioAccessCapabilityList  OPTIONAL,
-- UTRAN mobility IEs
  ura-Identity                  URA-Identity                  OPTIONAL,
-- Core network IEs
  cn-CommonGSM-MAP-NAS-SysInfo NAS-SystemInformationGSM-MAP,
  cn-DomainInformationList      CN-DomainInformationListFull  OPTIONAL,
-- Measurement IEs
  ongoingMeasRepList            OngoingMeasRepList-r4        OPTIONAL,
-- Radio bearer IEs
  predefinedConfigStatusList    PredefinedConfigStatusList,
  srb-InformationList            SRB-InformationSetupList,
  rab-InformationList            RAB-InformationSetupList-r4   OPTIONAL,
-- Transport channel IEs
  ul-CommonTransChInfo          UL-CommonTransChInfo-r4       OPTIONAL,
  ul-TransChInfoList            UL-AddReconfTransChInfoList  OPTIONAL,
  modeSpecificInfo              CHOICE {
    fdd                          SEQUENCE {
      cpch-SetID                  CPCH-SetID                    OPTIONAL,
      transChDRAC-Info            DRAC-StaticInformationList    OPTIONAL
    },
    tdd                          NULL
  }
  dl-CommonTransChInfo          DL-CommonTransChInfo-r4       OPTIONAL,
  dl-TransChInfoList            DL-AddReconfTransChInfoList-r4  OPTIONAL,
-- Measurement report
  measurementReport              MeasurementReport              OPTIONAL,
  failureCause                   FailureCauseWithProtErr        OPTIONAL
}

SRNC-RelocationInfo-r5-IEs ::= SEQUENCE {
  -- Non-RRC IEs
  -- IE rb-IdentityForHOMessage includes the identity of the RB used by the source SRNC
  -- to send the message contained in the IE "TargetRNC-ToSourceRNC-Container".
  -- Only included if type is "UE involved"
  rb-IdentityForHOMessage        RB-Identity                    OPTIONAL,
  stateOfRRC                     StateOfRRC,
  stateOfRRC-Procedure            StateOfRRC-Procedure,
  -- Ciphering related information IEs
  cipheringStatusList             CipheringStatusList-r4,
  latestConfiguredCN-Domain       CN-DomainIdentity,
  calculationTimeForCiphering      CalculationTimeForCiphering    OPTIONAL,
  count-C-List                    COUNT-C-List                   OPTIONAL,
  cipheringInfoPerRB-List          CipheringInfoPerRB-List-r4    OPTIONAL,
  -- Integrity protection related information IEs
  integrityProtectionStatus        IntegrityProtectionStatus,
  srb-SpecificIntegrityProtInfo     SRB-SpecificIntegrityProtInfoList  OPTIONAL,
  implementationSpecificParams      ImplementationSpecificParams    OPTIONAL,
  -- User equipment IEs
  u-RNTI                          U-RNTI,
  c-RNTI                          C-RNTI                        OPTIONAL,
  ue-RadioAccessCapability          UE-RadioAccessCapability-r5,
  ue-RadioAccessCapability-ext      UE-RadioAccessCapabBandFDDList  OPTIONAL,
  ue-Positioning-LastKnownPos       UE-Positioning-LastKnownPos     OPTIONAL,
  uESpecificBehaviourInformationIdle
  UESpecificBehaviourInformationIdle  OPTIONAL,
  uESpecificBehaviourInformationInterRAT
  UESpecificBehaviourInformationInterRAT  OPTIONAL,
  -- Other IEs
  ue-RATSpecificCapability          InterRAT-UE-RadioAccessCapabilityList-r5  OPTIONAL,
  -- UTRAN mobility IEs
  ura-Identity                    URA-Identity                  OPTIONAL,
  -- Core network IEs
  cn-CommonGSM-MAP-NAS-SysInfo     NAS-SystemInformationGSM-MAP,
  cn-DomainInformationList          CN-DomainInformationListFull    OPTIONAL,
  -- Measurement IEs
  ongoingMeasRepList                OngoingMeasRepList-r5          OPTIONAL,
  -- Radio bearer IEs
  predefinedConfigStatusList         PredefinedConfigStatusList,
  srb-InformationList                SRB-InformationSetupList-r5,
  rab-InformationList                RAB-InformationSetupList-r5     OPTIONAL,
  -- Transport channel IEs
  ul-CommonTransChInfo              UL-CommonTransChInfo-r4        OPTIONAL,
  ul-TransChInfoList                UL-AddReconfTransChInfoList    OPTIONAL,
  modeSpecificInfo                  CHOICE {
    fdd                              SEQUENCE {

```

cpch-SetID	CPCH-SetID	OPTIONAL,
transChDRAC-Info	DRAC-StaticInformationList	OPTIONAL
},		
tdd	NULL	
}		OPTIONAL,
dl-CommonTransChInfo	DL-CommonTransChInfo-r4	OPTIONAL,
dl-TransChInfoList	DL-AddReconfTransChInfoList-r5	OPTIONAL,
-- PhyCH IEs		
tpc-CombinationInfoList	TPC-CombinationInfoList	OPTIONAL,
-- Measurement report		
measurementReport	MeasurementReport	OPTIONAL,
-- Other IEs		
failureCause	FailureCauseWithProtErr	OPTIONAL
}		

-- IE definitions

```

CalculationTimeForCipherng ::= SEQUENCE {
    cell-Id          CellIdentity,
    sfn              INTEGER (0..4095)
}

CipherngInfoPerRB ::= SEQUENCE {
    dl-HFN          BIT STRING (SIZE (20..25)),
    ul-HFN          BIT STRING (SIZE (20..25))
}

CipherngInfoPerRB-r4 ::= SEQUENCE {
    rb-Identity     RB-Identity,
    dl-HFN          BIT STRING (SIZE (20..25)),
    dl-UM-SN       BIT STRING (SIZE (7))           OPTIONAL,
    ul-HFN          BIT STRING (SIZE (20..25))
}

-- TABULAR: CipherngInfoPerRB-List, multiplicity value numberOfRadioBearers
-- has been replaced with maxRB.
CipherngInfoPerRB-List ::= SEQUENCE (SIZE (1..maxRB)) OF
    CipherngInfoPerRB

CipherngInfoPerRB-List-r4 ::= SEQUENCE (SIZE (1..maxRB)) OF
    CipherngInfoPerRB-r4

CipherngStatus ::= ENUMERATED {
    started, notStarted }

CipherngStatusList-r4 ::= SEQUENCE (SIZE (1..maxCNdomains)) OF
    CipherngStatusCNdomain-r4

CipherngStatusCNdomain-r4 ::= SEQUENCE {
    cn-DomainIdentity CN-DomainIdentity,
    cipherngStatus    CipherngStatus,
    start-Value       START-Value
}

CN-DomainInformation-v390ext ::= SEQUENCE {
    cn-DRX-CycleLengthCoeff CN-DRX-CycleLengthCoefficient
}

CN-DomainInformationList-v390ext ::= SEQUENCE (SIZE (1..maxCNdomains)) OF
    CN-DomainInformation-v390ext

CompressedModeMeasCapability-r4 ::= SEQUENCE {
    fdd-Measurements      BOOLEAN,
    -- TABULAR: The IEs tdd-Measurements, gsm-Measurements and multiCarrierMeasurements
    -- are made optional since they are conditional based on another information element.
    -- Their absence corresponds to the case where the condition is not true.
    tdd384-Measurements   BOOLEAN           OPTIONAL,
    tdd128-Measurements   BOOLEAN           OPTIONAL,
    gsm-Measurements      GSM-Measurements  OPTIONAL,
    multiCarrierMeasurements BOOLEAN           OPTIONAL
}

COUNT-C-List ::= SEQUENCE (SIZE (1..maxCNdomains)) OF
    COUNT-C-List-Entry

COUNT-C-List-Entry ::= SEQUENCE {
    cn-DomainIdentity CN-DomainIdentity,

```

```

count-C                               BIT STRING (SIZE (32))
}

DL-PhysChCapabilityFDD-r4 ::=          SEQUENCE {
maxNoDPCH-PDSCH-Codes                 INTEGER (1..8),
maxNoPhysChBitsReceived               MaxNoPhysChBitsReceived,
supportForSF-512                      BOOLEAN,
supportOfPDSCH                        BOOLEAN,
simultaneousSCCPCH-DPCH-Reception     SimultaneousSCCPCH-DPCH-Reception,
supportOfDedicatedPilotsForChEstimation SupportOfDedicatedPilotsForChEstimation OPTIONAL
}

DL-PhysChCapabilityFDD-r5 ::=          SEQUENCE {
maxNoDPCH-PDSCH-Codes                 INTEGER (1..8),
maxNoPhysChBitsReceived               MaxNoPhysChBitsReceived,
supportForSF-512                      BOOLEAN,
supportOfPDSCH                        BOOLEAN,
simultaneousSCCPCH-DPCH-Reception     SimultaneousSCCPCH-DPCH-Reception,
supportOfDedicatedPilotsForChEstimation SupportOfDedicatedPilotsForChEstimation OPTIONAL,
fdd-hspdsch                           CHOICE {
supported                               SEQUENCE {
hdsch-physical-layer-category          HSDSCH-physical-layer-category,
supportOfDedicatedPilotsForChannelEstimationOfHSDSCH BOOLEAN,
-- simultaneousSCCPCH-DPCH-HSDSCH-Reception shall be true only if the
-- IE SimultaneousSCCPCH-DPCH-Reception indicates support of simultaneous
-- reception of S-CCPCH and DPCH
simultaneousSCCPCH-DPCH-HSDSCH-Reception BOOLEAN
},
unsupported                               NULL
}
}

DL-PhysChCapabilityTDD-r5 ::=          SEQUENCE {
maxTS-PerFrame                        MaxTS-PerFrame,
maxPhysChPerFrame                     MaxPhysChPerFrame,
minimumSF                              MinimumSF-DL,
supportOfPDSCH                        BOOLEAN,
maxPhysChPerTS                        MaxPhysChPerTS,
tdd384-hspdsch                         CHOICE {
supported                               HSDSCH-physical-layer-category,
unsupported                               NULL
}
}

DL-PhysChCapabilityTDD-LCR-r5 ::=      SEQUENCE {
maxTS-PerSubFrame                     MaxTS-PerSubFrame-r4,
maxPhysChPerFrame                     MaxPhysChPerSubFrame-r4,
minimumSF                              MinimumSF-DL,
supportOfPDSCH                        BOOLEAN,
maxPhysChPerTS                        MaxPhysChPerTS,
supportOf8PSK                          BOOLEAN,
tdd128-hspdsch                         CHOICE {
supported                               HSDSCH-physical-layer-category,
unsupported                               NULL
}
}

DL-RFC3095-Context ::=                SEQUENCE {
rfc3095-Context-Identity               INTEGER (0..16383),
dl-mode                                ENUMERATED {u, o, r},
dl-ref-ir                              OCTET STRING ( SIZE (1..3000)),
dl-ref-time                             INTEGER (0..4294967295) OPTIONAL,
dl-curr-time                             INTEGER (0..4294967295) OPTIONAL,
dl-syn-offset-id                       INTEGER (0..65535) OPTIONAL,
dl-syn-slope-ts                        INTEGER (0..4294967295) OPTIONAL,
dl-dyn-changed                          BOOLEAN
}

ImplementationSpecificParams ::=       BIT STRING (SIZE (1..512))

IntegrityProtectionStatus ::=          ENUMERATED {
started, notStarted }

InterRAT-UE-RadioAccessCapabilityList-r5 ::= SEQUENCE {
interRAT-UE-RadioAccessCapability      InterRAT-UE-RadioAccessCapabilityList,
geranIu-RadioAccessCapability           GERANIu-RadioAccessCapability OPTIONAL
}

```

```

MaxHcContextSpace-r5 ::= ENUMERATED {
by512, by1024, by2048, by4096, by8192,
by16384, by32768, by65536, by131072 }

MeasurementCapability-r4 ::= SEQUENCE {
    downlinkCompressedMode CompressedModeMeasCapability-r4,
    uplinkCompressedMode CompressedModeMeasCapability-r4
}

MeasurementCommandWithType ::= CHOICE {
    setup MeasurementType,
    modify NULL,
    release NULL
}

MeasurementCommandWithType-r4 ::= CHOICE {
    setup MeasurementType-r4,
    modify NULL,
    release NULL
}

OngoingMeasRep ::= SEQUENCE {
    measurementIdentity MeasurementIdentity,
    -- TABULAR: The CHOICE Measurement in the tabular description is included
    -- in MeasurementCommandWithType
    measurementCommandWithType MeasurementCommandWithType,
    measurementReportingMode MeasurementReportingMode OPTIONAL,
    additionalMeasurementID-List AdditionalMeasurementID-List OPTIONAL
}

OngoingMeasRep-r4 ::= SEQUENCE {
    measurementIdentity MeasurementIdentity,
    -- TABULAR: The CHOICE Measurement in the tabular description is included
    -- in MeasurementCommandWithType-r4.
    measurementCommandWithType MeasurementCommandWithType-r4,
    measurementReportingMode MeasurementReportingMode OPTIONAL,
    additionalMeasurementID-List AdditionalMeasurementID-List OPTIONAL
}

OngoingMeasRep-r5 ::= SEQUENCE {
measurementIdentity MeasurementIdentity,
-- TABULAR: The CHOICE Measurement in the tabular description is included
-- in MeasurementCommandWithType-r4.
measurementCommandWithType MeasurementCommandWithType-r4,
measurementReportingMode MeasurementReportingMode OPTIONAL,
additionalMeasurementID-List AdditionalMeasurementID-List OPTIONAL,
measurementCommand-v590ext CHOICE {
-- the choice "intra-frequency" shall be used for the case of intra-frequency measurement,
-- as well as when intra-frequency events are configured for inter-frequency measurement
intra-frequency Intra-FreqEventCriteriaList-v590ext,
inter-frequency Inter-FreqEventCriteriaList-v590ext
},
OPTIONAL,
intraFreqReportingCriteria-1b-r5 IntraFreqReportingCriteria-1b-r5 OPTIONAL,
intraFreqEvent-1d-r5 IntraFreqEvent-1d-r5 OPTIONAL
}

OngoingMeasRepList ::= SEQUENCE (SIZE (1..maxNoOfMeas)) OF
    OngoingMeasRep

OngoingMeasRepList-r4 ::= SEQUENCE (SIZE (1..maxNoOfMeas)) OF
    OngoingMeasRep-r4

OngoingMeasRepList-r5 ::= SEQUENCE (SIZE (1..maxNoOfMeas)) OF
    OngoingMeasRep-r5

PDCP-Capability-r4 ::= SEQUENCE {
    losslessSRNS-RelocationSupport BOOLEAN,
    supportForRfc2507 CHOICE {
        notSupported NULL,
        supported MaxHcContextSpace
    },
    supportForRfc3095 CHOICE {
        notSupported NULL,
        supported SEQUENCE {
            maxROHC-ContextSessions MaxROHC-ContextSessions-r4 DEFAULT s16,
            reverseCompressionDepth INTEGER (0..65535) DEFAULT 0
        }
    }
}

```

```

}
}
}
PDCP-Capability-r5 ::= SEQUENCE {
    losslessSRNS-RelocationSupport    BOOLEAN,
    supportForRfc2507                 CHOICE {
        notSupported                  NULL,
        supported                     MaxHcContextSpace-r5
    },
    supportForRfc3095                 CHOICE {
        notSupported                  NULL,
        supported                     SEQUENCE {
            maxROHC-ContextSessions   MaxROHC-ContextSessions-r4  DEFAULT s16,
            reverseCompressionDepth    INTEGER (0..65535)          DEFAULT 0,
            supportForRfc3095ContextRelocation  BOOLEAN
        }
    }
}

PhysicalChannelCapability-r4 ::= SEQUENCE {
    fddPhysChCapability              SEQUENCE {
        downlinkPhysChCapability      DL-PhysChCapabilityFDD-r4,
        uplinkPhysChCapability        UL-PhysChCapabilityFDD
    } OPTIONAL,
    tdd384-PhysChCapability          SEQUENCE {
        downlinkPhysChCapability      DL-PhysChCapabilityTDD,
        uplinkPhysChCapability        UL-PhysChCapabilityTDD
    } OPTIONAL,
    tdd128-PhysChCapability          SEQUENCE {
        downlinkPhysChCapability      DL-PhysChCapabilityTDD-LCR-r4,
        uplinkPhysChCapability        UL-PhysChCapabilityTDD-LCR-r4
    } OPTIONAL
}

PhysicalChannelCapability-r5 ::= SEQUENCE {
    fddPhysChCapability              SEQUENCE {
        downlinkPhysChCapability      DL-PhysChCapabilityFDD-r5,
        uplinkPhysChCapability        UL-PhysChCapabilityFDD
    } OPTIONAL,
    tdd384-PhysChCapability          SEQUENCE {
        downlinkPhysChCapability      DL-PhysChCapabilityTDD-r5,
        uplinkPhysChCapability        UL-PhysChCapabilityTDD
    } OPTIONAL,
    tdd128-PhysChCapability          SEQUENCE {
        downlinkPhysChCapability      DL-PhysChCapabilityTDD-LCR-r5,
        uplinkPhysChCapability        UL-PhysChCapabilityTDD-LCR-r4
    } OPTIONAL
}

RF-Capability-r4 ::= SEQUENCE {
    fddRF-Capability                SEQUENCE {
        ue-PowerClass                UE-PowerClassExt,
        txRxFrequencySeparation      TxRxFrequencySeparation
    } OPTIONAL,
    tdd384-RF-Capability            SEQUENCE {
        ue-PowerClass                UE-PowerClassExt,
        radioFrequencyBandTDDList    RadioFrequencyBandTDDList,
        chipRateCapability            ChipRateCapability
    } OPTIONAL,
    tdd128-RF-Capability            SEQUENCE {
        ue-PowerClass                UE-PowerClassExt,
        radioFrequencyBandTDDList    RadioFrequencyBandTDDList,
        chipRateCapability            ChipRateCapability
    } OPTIONAL
}

RFC3095-ContextInfo ::= SEQUENCE {
    rb-Identity                      RB-Identity,
    rfc3095-Context-List             RFC3095-Context-List
}

RFC3095-Context-List ::= SEQUENCE (SIZE (1..maxRFC3095-CID)) OF SEQUENCE {
    dl-RFC3095-Context              DL-RFC3095-Context    OPTIONAL,
    ul-RFC3095-Context              UL-RFC3095-Context    OPTIONAL
}

RLC-Capability-r5 ::= SEQUENCE {
    totalRLC-AM-BufferSize          TotalRLC-AM-BufferSize-r5,
}

```



```

maximumRLC-WindowSize           MaximumRLC-WindowSize,
maximumAM-EntityNumber         MaximumAM-EntityNumberRLC-Cap
}

SRB-SpecificIntegrityProtInfo ::= SEQUENCE {
    ul-RRC-HFN                     BIT STRING (SIZE (28)),
    dl-RRC-HFN                     BIT STRING (SIZE (28)),
    ul-RRC-SequenceNumber          RRC-MessageSequenceNumber,
    dl-RRC-SequenceNumber          RRC-MessageSequenceNumber
}

SRB-SpecificIntegrityProtInfoList ::= SEQUENCE (SIZE (4..maxSRBsetup)) OF
    SRB-SpecificIntegrityProtInfo

StateOfRRC ::= ENUMERATED {
    cell-DCH, cell-FACH,
    cell-PCH, ura-PCH }

StateOfRRC-Procedure ::= ENUMERATED {
    awaitNoRRC-Message,
    awaitRB-ReleaseComplete,
    awaitRB-SetupComplete,
    awaitRB-ReconfigurationComplete,
    awaitTransportCH-ReconfigurationComplete,
    awaitPhysicalCH-ReconfigurationComplete,
    awaitActiveSetUpdateComplete,
    awaitHandoverComplete,
    sendCellUpdateConfirm,
    sendUraUpdateConfirm,
    -- dummy is not used in this version of specification
    -- It should not be sent
    dummy,
    otherStates
}

TotalRLC-AM-BufferSize-r5 ::= ENUMERATED {
kb10, kb50, kb100, kb150, kb200,
kb300, kb400, kb500, kb750, kb1000 }

TPC-Combination-Info ::= SEQUENCE {
    primaryCPICH-Info              PrimaryCPICH-Info,
    tpc-CombinationIndex           TPC-CombinationIndex
}

UE-MultiModeRAT-Capability-r5 ::= SEQUENCE {
multiRAT-CapabilityList       MultiRAT-Capability,
multiModeCapability           MultiModeCapability,
supportOfUTRAN-ToGERAN-NACC   BOOLEAN
}

UE-Positioning-Capability-r4 ::= SEQUENCE {
    standaloneLocMethodsSupported  BOOLEAN,
    ue-BasedOTDOA-Supported        BOOLEAN,
    networkAssistedGPS-Supported   NetworkAssistedGPS-Supported,
    supportForUE-GPS-TimingOfCellFrames  BOOLEAN,
    supportForIPDL                 BOOLEAN,
    rx-tx-TimeDifferenceType2Capable  BOOLEAN,
    validity-CellPCH-UraPCH         ENUMERATED { true {0} } OPTIONAL,
    sfn-sfnType2Capability       ENUMERATED { true } OPTIONAL
}

UE-Positioning-LastKnownPos ::= SEQUENCE {
    sfn                             INTEGER (0..4095),
    cell-id                          CellIdentity,
    positionEstimate                 PositionEstimate
}

UE-RadioAccessCapability-r4 ::= SEQUENCE {
    accessStratumReleaseIndicator   AccessStratumReleaseIndicator,
    pdcp-Capability                 PDCP-Capability-r4,
    rlc-Capability                  RLC-Capability,
    transportChannelCapability      TransportChannelCapability,
    rf-Capability                   RF-Capability-r4,
    physicalChannelCapability       PhysicalChannelCapability-r4,
    ue-MultiModeRAT-Capability      UE-MultiModeRAT-Capability,
    securityCapability              SecurityCapability,
    ue-positioning-Capability        UE-Positioning-Capability-r4,
    measurementCapability           MeasurementCapability-r4 OPTIONAL
}

```

}

```

UE-RadioAccessCapability-r5 ::= SEQUENCE {
  accessStratumReleaseIndicator      AccessStratumReleaseIndicator,
  dl-CapabilityWithSimultaneousHS-DSCHConfig
  DL-CapabilityWithSimultaneousHS-DSCHConfig OPTIONAL,
  pdcp-Capability                    PDCP-Capability-r5,
  rlc-Capability                      RLC-Capability-r5,
  transportChannelCapability         TransportChannelCapability,
  rf-Capability                      RF-Capability-r4,
  physicalChannelCapability          PhysicalChannelCapability-r5,
  ue-MultiModeRAT-Capability        UE-MultiModeRAT-Capability-r5,
  securityCapability                 SecurityCapability,
  ue-positioning-Capability          UE-Positioning-Capability-r4,
  measurementCapability              MeasurementCapability-r4 OPTIONAL
}

```

```

UL-RFC3095-Context ::= SEQUENCE {
  rfc3095-Context-Identity          INTEGER (0..16383),
  ul-mode                           ENUMERATED {u, o, r},
  ul-ref-ir                          OCTET STRING ( SIZE (1..3000)),
  ul-ref-time                         INTEGER (0..4294967295) OPTIONAL,
  ul-curr-time                        INTEGER (0..4294967295) OPTIONAL,
  ul-syn-offset-id                   INTEGER (0..65535) OPTIONAL,
  ul-syn-slope-ts                     INTEGER (0..4294967295) OPTIONAL,
  ul-ref-sn-l                         INTEGER (0..65535) OPTIONAL
}

```

}

END

Next modified section

14.12 Provision and reception of RRC information between network nodes

:

14.12.4.2 SRNS RELOCATION INFO

This RRC message is sent between network nodes when preparing for an SRNS relocation or a handover/cell reselection from GERAN *Iu mode*.

With the presence or absence of the IE "RB identity for Hard Handover message" the source RNC indicates to the target SRNC whether the source RNC expects to receive the choice "DL DCCH message" in the IE "RRC information, target RNC to source RNC" in case the SRNS relocation is of type "UE involved". Furthermore the target RNC uses this information for the calculation of the MAC-I.

Direction: source RNC/RAT→target RNC

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Non RRC IEs				
≥RB identity for Handover message	OP		RB identity 10.3.4.16	Gives the id of the radio bearer on which the source RNC will transmit the RRC message in the case the relocation is of type "UE involved". In handover from GERAN <i>Iu mode</i> this IE is always set to 2.
>State of RRC	MP		RRC state indicator, 10.3.3.35a	
>State of RRC procedure	MP		Enumerated (await no RRC message, await RB Release Complete, await RB Setup Complete, await RB Reconfiguration Complete, await Transport CH Reconfiguration Complete, await Physical CH Reconfiguration Complete, await Active Set Update Complete, await Handover Complete, send Cell	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			Update Confirm, send URA Update Confirm, , others)	
Ciphering related information				
>Ciphering status for each CN domain	MP	<1 to maxCNDo mains>		
>>CN domain identity	MP		CN domain identity 10.3.1.1	
>>Ciphering status	MP		Enumerated(Not started, Started)	
>>START	MP		START 10.3.3.38	START value to be used in this CN domain.
>Latest configured CN domain	MP		CN domain identity 10.3.1.1	Value contained in the variable of the same name. In case this variable is empty, the source RNC can set any CN domain identity. In that case, the Ciphering status and the Integrity protection status should be Not started and the target RNC should not initialise the variable Latest configured CN domain.
>Calculation time for ciphering related information	CV- <i>Ciphering</i>			Time when the ciphering information of the message were calculated, relative to a cell of the target RNC. In handover and cell reselection from GERAN <i>lu mode</i> this field is not present.
>>Cell Identity	MP		Cell Identity 10.3.2.2	Identity of one of the cells under the target RNC and included in the active set of the current call
>>SFN	MP		Integer(0..4095)	
>COUNT-C list	OP	1 to <maxCNdo mains>		COUNT-C values for radio bearers using transparent mode RLC
>>CN domain identity	MP		CN domain identity 10.3.1.1	
>>COUNT-C	MP		Bit string(32)	
>Ciphering info per radio bearer	OP	1 to <maxRB>		For signalling radio bearers this IE is mandatory.
>>RB identity	MP		RB identity 10.3.4.16	
>>Downlink HFN	MP		Bit string(20..25)	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)
>>Downlink SN	CV- <i>SRB1</i>		Bit String(7)	VT(US) of RLC UM
>>Uplink HFN	MP		Bit string(20..25)	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)
Integrity protection related information				
>Integrity protection status	MP		Enumerated(Not started, Started)	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>Signalling radio bearer specific integrity protection information	CV-IP	4 to <maxSRBs etup>		
>>Uplink RRC HFN	MP		Bit string (28)	For each SRB, in the case activation times for the next IP configuration to be applied on this SRB have already been reached this IE corresponds to the last value used. Else this value corresponds to the value the source would have initialized the HFN to at the activation time. Increment of HFN due to RRC SN roll over is taken care of by target based on value sent by the source.
>>Downlink RRC HFN	MP		Bit string (28)	For each SRB, in the case activation times for the next IP configuration to be applied on this SRB have already been reached this IE corresponds to the last value used. Else this value corresponds to the value the source would have initialized the HFN to at the activation time. Increment of HFN due to RRC SN roll over is taken care of by target based on value sent by the source. In particular, for SRB2, this IE should not take into account the RRC message that will trigger the relocation.
>>Uplink RRC Message sequence number	MP		Integer (0..15)	For each SRB, this IE corresponds to the last value received or in the case activation time was not reached for a configuration the value equals (activation time - 1).
>>Downlink RRC Message sequence number	MP		Integer (0..15)	For each SRB, this IE corresponds to the last value used or in the case activation time was not reached for a configuration the value equals (activation time -1). In particular, for SRB2, this IE should not take into account the RRC message that will trigger the relocation.
>Implementation specific parameters	OP		Bit string (1..512)	
RRC IEs				
UE Information elements				
>U-RNTI	MP		U-RNTI 10.3.3.47	G-RNTI is placed in this field when performing handover or cell reselection from GERAN <i>lu mode</i> .
>C-RNTI	OP		C-RNTI 10.3.3.8	
>UE radio access Capability	MP		UE radio access capability 10.3.3.42	
>UE radio access capability	OP		UE radio	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
extension			access capability extension 10.3.3.42a	
>Last known UE position	OP			
>>SFN	MP		Integer (0..4095)	Time when position was estimated
>>Cell ID	MP		Cell identity; 10.3.2.2	Indicates the cell, the SFN is valid for.
>>CHOICE <i>Position estimate</i>	MP			
>>>Ellipsoid Point			Ellipsoid Point; 10.3.8.4a	
>>>Ellipsoid point with uncertainty circle			Ellipsoid point with uncertainty circle 10.3.8.4d	
>>>Ellipsoid point with uncertainty ellipse			Ellipsoid point with uncertainty ellipse 10.3.8.4e	
>>>Ellipsoid point with altitude			Ellipsoid point with altitude 10.3.8.4b	
>>>Ellipsoid point with altitude and uncertainty ellipsoid			Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8.4c	
>UE Specific Behaviour Information 1 idle	OP		UE Specific Behaviour Information idle 1 10.3.3.51	This IE should be included if received via the "INTER RAT HANDOVER INFO", the "RRC CONNECTION REQUEST", the IE "SRNS RELOCATION INFO" or the "Inter RAT Handover Info with Inter RAT Capabilities"
>UE Specific Behaviour Information 1 interRAT	OP		UE Specific Behaviour Information 1 interRAT 10.3.3.52	This IE should be included if received via the "INTER RAT HANDOVER INFO", the "RRC CONNECTION REQUEST", the IE "SRNS RELOCATION INFO" or the "Inter RAT Handover Info with Inter RAT Capabilities"
Other Information elements				
>UE system specific capability	OP	1 to <maxSystemCapability>		
>>Inter-RAT UE radio access capability	MP		Inter-RAT UE radio access capability 10.3.8.7	
UTRAN Mobility Information elements				
>URA Identifier	OP		URA identity 10.3.2.6	
CN Information Elements				
>CN common GSM-MAP NAS system information	MP		NAS system information	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			(GSM-MAP) 10.3.1.9	
>CN domain related information	OP	1 to <MaxCNdo mains>		CN related information to be provided for each CN domain
>>CN domain identity	MP			
>>CN domain specific GSM-MAP NAS system info	MP		NAS system information (GSM-MAP) 10.3.1.9	
>>CN domain specific DRX cycle length coefficient	MP		CN domain specific DRX cycle length coefficient, 10.3.3.6	
Measurement Related Information elements				
>For each ongoing measurement reporting	OP	1 to <MaxNoOf Meas>		
>>Measurement Identity	MP		Measurement identity 10.3.7.48	
>>Measurement Command	MP		Measurement command 10.3.7.46	
>>Measurement Type	CV-Setup		Measurement type 10.3.7.50	
>>Measurement Reporting Mode	OP		Measurement reporting mode 10.3.7.49	
>>Additional Measurements list	OP		Additional measurements list 10.3.7.1	
>>CHOICE <i>Measurement</i>	OP			
>>>Intra-frequency				
>>>>Intra-frequency cell info	OP		Intra-frequency cell info list 10.3.7.33	
>>>>Intra-frequency measurement quantity	OP		Intra-frequency measurement quantity 10.3.7.38	
>>>>Intra-frequency reporting quantity	OP		Intra-frequency reporting quantity 10.3.7.41	
>>>>Reporting cell status	OP		Reporting cell status 10.3.7.61	
>>>>Measurement validity	OP		Measurement validity 10.3.7.51	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>>Intra-frequency measurement reporting criteria			Intra-frequency measurement reporting criteria	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>>>>Periodical reporting			10.3.7.39 Periodical reporting criteria 10.3.7.53	
>>>>No reporting			NULL	
>>>Inter-frequency				
>>>>Inter-frequency cell info	OP		Inter-frequency cell info list 10.3.7.13	
>>>>Inter-frequency measurement quantity	OP		Inter-frequency measurement quantity 10.3.7.18	
>>>>Inter-frequency reporting quantity	OP		Inter-frequency reporting quantity 10.3.7.21	
>>>>Reporting cell status	OP		Reporting cell status 10.3.7.61	
>>>>Measurement validity	OP		Measurement validity 10.3.7.51	
>>>> Inter-frequency set update	OP		Inter-frequency set update 10.3.7.22	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>> Intra-frequency measurement reporting criteria			Intra-frequency measurement reporting criteria 10.3.7.39	
>>>>>Inter-frequency measurement reporting criteria			Inter-frequency measurement reporting criteria 10.3.7.19	
>>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>>No reporting			NULL	
>>>Inter-RAT				
>>>>Inter-RAT cell info	OP		Inter-RAT cell info list 10.3.7.23	
>>>>Inter-RAT measurement quantity	OP		Inter-RAT measurement quantity 10.3.7.29	
>>>>Inter-RAT reporting quantity	OP		Inter-RAT reporting quantity 10.3.7.32	
>>>>Reporting cell status	OP		Reporting cell status 10.3.7.61	
>>>>Measurement validity	OP		Measurement validity	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			t validity 10.3.7.51	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>Inter-RAT measurement reporting criteria			Inter-RAT measurement reporting criteria 10.3.7.30	
>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>No reporting			NULL	
>>>Traffic Volume				
>>>>Traffic volume measurement Object	OP		Traffic volume measurement object 10.3.7.70	
>>>>Traffic volume measurement quantity	OP		Traffic volume measurement quantity 10.3.7.71	
>>>>Traffic volume reporting quantity	OP		Traffic volume reporting quantity 10.3.7.74	
>>>>Measurement validity	<u>OP</u>		<u>Measurement validity</u> <u>10.3.7.51</u>	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>>Traffic volume measurement reporting criteria			Traffic volume measurement reporting criteria 10.3.7.72	
>>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>>No reporting			NULL	
>>>Quality				
>>>>Quality measurement_ <u>quantity</u> Object	OP		Quality measurement <u>quantity</u> <u>10.3.7.59-</u> object	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>>Quality measurement reporting criteria			Quality measurement reporting criteria 10.3.7.58	
>>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>>No reporting			NULL	
>>>UE internal				
>>>>UE internal measurement quantity	OP		UE internal measurement quantity	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>>>>UE internal reporting quantity	OP		10.3.7.79 UE internal reporting quantity 10.3.7.82	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>>UE internal measurement reporting criteria			UE internal measurement reporting criteria 10.3.7.80	
>>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>>No reporting			NULL	
>>>UE positioning				
>>>>LCS reporting quantity	OP		LCS reporting quantity 10.3.7.111	
>>>>CHOICE <i>report criteria</i>	OP			
>>>>>LCS reporting criteria			LCS reporting criteria 10.3.7.110	
>>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>>No reporting				
Radio Bearer Information Elements				
>Predefined configuration status information	OP		Predefined configuration status information 10.3.4.5a	
>Signalling RB information list	MP	1 to <maxSRBs etup>		For each signalling radio bearer
>>Signalling RB information	MP		Signalling RB information to setup 10.3.4.24	
>RAB information list	OP	1 to <maxRABs etup>		Information for each RAB
>>RAB information	MP		RAB information to setup 10.3.4.10	
Transport Channel Information Elements				
Uplink transport channels				
>UL Transport channel information common for all transport channels	OP		UL Transport channel information common for all transport channels 10.3.5.24	
>UL transport channel information list	OP	1 to <MaxTrCH		

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>>UL transport channel information	MP	>	Added or reconfigured UL TrCH information 10.3.5.2	
>CHOICE mode	OP			
>>FDD				
>>>CPCH set ID	OP		CPCH set ID 10.3.5.5	
>>>>Transport channel information for DRAC list	OP	1 to <MaxTrCH >		
>>>>>DRAC static information	MP		DRAC static information 10.3.5.7	
>>TDD				(no data)
Downlink transport channels				
>DL Transport channel information common for all transport channels	OP		DL Transport channel information common for all transport channels 10.3.5.6	
>DL transport channel information list	OP	1 to <MaxTrCH >		
>>DL transport channel information	MP		Added or reconfigured DL TrCH information 10.3.5.1	
>Measurement report	OP		MEASUREMENT-REPORT 10.2.17	
Other Information elements				
PhyCH information elements				
>TPC Combination Info list	OP	1 to <maxRL>		
>>Primary CPICH info	MP		Primary CPICH info 10.3.6.60	
>>>TPC combination index	MP		TPC combination index 10.3.6.85	
Other Information elements				
>Measurement report	OP		MEASUREMENT-REPORT 10.2.19	
>Failure cause	OP		Failure cause 10.3.3.13	Diagnostics information related to an earlier SRNC Relocation request (see NOTE 2 in 14.12.0a)
>Protocol error information	CV-ProtErr		Protocol error information 10.3.8.12	

Multi Bound	Explanation
MaxNoOfMeas	Maximum number of active measurements, upper limit 16

Condition	Explanation
<i>Setup</i>	The IE is mandatory present when the IE Measurement command has the value "Setup", otherwise the IE is not needed.
<i>Ciphering</i>	The IE is mandatory present when the IE Ciphering Status has the value "started" and the ciphering counters need not be reinitialised, otherwise the IE is not needed.
<i>IP</i>	The IE is mandatory present when the IE Integrity protection status has the value "started" and the integrity protection counters need not be reinitialised, otherwise the IE is not needed.
<i>ProtErr</i>	This IE is mandatory present if the IE "Protocol error indicator" is included and has the value "TRUE". Otherwise it is not needed.
<i>SRB1</i>	The IE is mandatory present for RB1. Otherwise it is not needed.

CHANGE REQUEST

⌘ **25.331 CR 2330** ⌘ rev **-** ⌘ Current version: **4.13.0** ⌘

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Correction to IE "Cell Info"		
Source:	⌘ RAN WG2		
Work item code:	⌘ TEI4	Date:	⌘ 25/04/2004
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 TR 21.900 .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	⌘ In R99 release of the specification, it is indicated that IE "Cell Selection and Re-selection Info" is absent for serving cell in IE "Cell Info", since UE shall obtain this information from IEs in SIB3/4. This text was earlier also present in early Rel-4 version, but was removed (by mistake) in CR 1695r3 (RP-020721).
Summary of change:	⌘ Text indicating that IE "Cell Selection and Re-selection Info" is absent for serving cell in IE "Cell Info" is re-inserted.
Consequences if not approved:	⌘ R99 function is not correctly covered in Rel-4 specification.

Clauses affected:	⌘ 10.3.7.2						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
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.

10.3.7.2 Cell info

Includes non-frequency related cell info used in the IE "inter-frequency cell info list" and "intra frequency cell info list".

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Cell individual offset	MD		Real(-10..10 by step of 0.5)	In dB Default value is 0 dB Used to offset measured quantity value	
Reference time difference to cell	OP		Reference time difference to cell 10.3.7.60	In chips. This IE is absent for serving cell.	
Read SFN indicator	MP		Boolean	TRUE indicates that read of SFN is requested for the target cell	
CHOICE <i>mode</i>	MP				
>FDD					
>>Primary CPICH info	OP		Primary CPICH info 10.3.6.60	This IE is absent only if measuring RSSI only (broadband measurement.)	
>>Primary CPICH Tx power	OP		Primary CPICH Tx power 10.3.6.61	Required if calculating pathloss.	
>>TX Diversity Indicator	MP		Boolean	TRUE indicates that transmit diversity is used.	
>TDD					
>>Primary CCPCH info	MP		Primary CCPCH info 10.3.6.57		
>>Primary CCPCH TX power	OP		Primary CCPCH TX power 10.3.6.59		
>>Timeslot list	OP	1 to <maxTS>		The UE shall report Timeslot ISCP values according the order of the listed Timeslot numbers	
>>>CHOICE <i>TDD option</i>	MP				REL-4
>>>>3.84 Mcps TDD					REL-4
>>>>>Timeslot number	MP		Integer (0..14)	Timeslot numbers, for which the UE shall report Timeslot ISCP	
>>>>>Burst Type	MD		Enumerated (Type1, Type2)	Use for Timeslot ISCP measurements only. Default value is "Type1"	
>>>>1.28 Mcps TDD					REL-4
>>>>>Timeslot number	MP		Integer (0..6)	Timeslot numbers, for which the UE shall report Timeslot ISCP	REL-4

Cell Selection and Re-selection Info	CV- <i>BCHopt</i>		Cell Selection and Re-selection for SIB11/12Info 10.3.2.4	This IE is absent for serving cell.	
--------------------------------------	-------------------	--	---	---	--

Condition	Explanation
<i>BCHopt</i>	This IE is Optional when sent in SYSTEM INFORMATION, Otherwise, the IE is not needed

CHANGE REQUEST

⌘ **25.331 CR 2331** ⌘ rev **-** ⌘ Current version: **5.8.0** ⌘

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Correction to IE "Cell Info"		
Source:	⌘ RAN WG2		
Work item code:	⌘ TEI4	Date:	⌘ 25/04/2004
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 TR 21.900 .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	⌘ In R99 release of the specification, it is indicated that IE "Cell Selection and Re-selection Info" is absent for serving cell in IE "Cell Info", since UE shall obtain this information from IEs in SIB3/4. This text was earlier also present in early Rel-5 version, but was removed (by mistake) in CR 1696r2 (RP-020721).
Summary of change:	⌘ Text indicating that IE "Cell Selection and Re-selection Info" is absent for serving cell in IE "Cell Info" is re-inserted.
Consequences if not approved:	⌘ R99 function is not correctly covered in Rel-5 specification.

Clauses affected:	⌘ 10.3.7.2						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
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.

10.3.7.2 Cell info

Includes non-frequency related cell info used in the IE "inter-frequency cell info list" and "intra frequency cell info list".

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Cell individual offset	MD		Real(-10..10 by step of 0.5)	In dB Default value is 0 dB Used to offset measured quantity value	
Reference time difference to cell	OP		Reference time difference to cell 10.3.7.60	In chips. This IE is absent for serving cell.	
Read SFN indicator	MP		Boolean	TRUE indicates that read of SFN is requested for the target cell	
CHOICE <i>mode</i>	MP				
>FDD					
>>Primary CPICH info	OP		Primary CPICH info 10.3.6.60	This IE is absent only if measuring RSSI only (broadband measurement.)	
>>Primary CPICH Tx power	OP		Primary CPICH Tx power 10.3.6.61	Required if calculating pathloss.	
>>TX Diversity Indicator	MP		Boolean	TRUE indicates that transmit diversity is used.	
>TDD					
>>Primary CCPCH info	MP		Primary CCPCH info 10.3.6.57		
>>Primary CCPCH TX power	OP		Primary CCPCH TX power 10.3.6.59		
>>Timeslot list	OP	1 to <maxTS>		The UE shall report Timeslot ISCP values according the order of the listed Timeslot numbers	
>>>CHOICE <i>TDD option</i>	MP				REL-4
>>>>3.84 Mcps TDD					REL-4
>>>>>Timeslot number	MP		Integer (0..14)	Timeslot numbers, for which the UE shall report Timeslot ISCP	
>>>>>Burst Type	MD		Enumerated (Type1, Type2)	Use for Timeslot ISCP measurements only. Default value is "Type1"	
>>>>>1.28 Mcps TDD					REL-4

>>>>Timeslot number	MP		Integer (0...6)	Timeslot numbers, for which the UE shall report Timeslot ISCP	REL-4
Cell Selection and Re-selection Info	CV- <i>BCHopt</i>		Cell Selection and Re-selection for SIB11/12Info 10.3.2.4	This IE is absent for serving cell.	

Condition	Explanation
<i>BCHopt</i>	This IE is Optional when sent in SYSTEM INFORMATION, Otherwise, the IE is not needed

CHANGE REQUEST

⌘ **25.331 CR 2332** ⌘ rev **-** ⌘ Current version: **6.1.0** ⌘

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Correction to IE "Cell Info"		
Source:	⌘ RAN WG2		
Work item code:	⌘ TEI4	Date:	⌘ 25/04/2004
Category:	⌘ A	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2	(GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R96	(Release 1996)
	B (addition of feature),	R97	(Release 1997)
	C (functional modification of feature)	R98	(Release 1998)
	D (editorial modification)	R99	(Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-4	(Release 4)
		Rel-5	(Release 5)
		Rel-6	(Release 6)

Reason for change:	⌘ In R99 release of the specification, it is indicated that IE "Cell Selection and Re-selection Info" is absent for serving cell in IE "Cell Info", since UE shall obtain this information from IEs in SIB3/4. This text was earlier also present in early Rel-4 and Rel-5 versions, but was removed (by mistake) in CR1695r3 and CR1696r2 (RP-020721).
Summary of change:	⌘ Text indicating that IE "Cell Selection and Re-selection Info" is absent for serving cell in IE "Cell Info" is re-inserted.
Consequences if not approved:	⌘ R99 function is not correctly covered in Rel-6 specification.

Clauses affected:	⌘ 10.3.7.2										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	⌘	X	⌘	X	⌘	X	Other core specifications	⌘
Y	N										
⌘	X										
⌘	X										
⌘	X										
		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:

- 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.

10.3.7.2 Cell info

Includes non-frequency related cell info used in the IE "inter-frequency cell info list" and "intra frequency cell info list".

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Cell individual offset	MD		Real(-10..10 by step of 0.5)	In dB Default value is 0 dB Used to offset measured quantity value	
Reference time difference to cell	OP		Reference time difference to cell 10.3.7.60	In chips. This IE is absent for serving cell.	
Read SFN indicator	MP		Boolean	TRUE indicates that read of SFN is requested for the target cell	
CHOICE <i>mode</i>	MP				
>FDD					
>>Primary CPICH info	OP		Primary CPICH info 10.3.6.60	This IE is absent only if measuring RSSI only (broadband measurement.)	
>>Primary CPICH Tx power	OP		Primary CPICH Tx power 10.3.6.61	Required if calculating pathloss.	
>>TX Diversity Indicator	MP		Boolean	TRUE indicates that transmit diversity is used.	
>TDD					
>>Primary CCPCH info	MP		Primary CCPCH info 10.3.6.57		
>>Primary CCPCH TX power	OP		Primary CCPCH TX power 10.3.6.59		
>>Timeslot list	OP	1 to <maxTS>		The UE shall report Timeslot ISCP values according the order of the listed Timeslot numbers	
>>>CHOICE <i>TDD option</i>	MP				REL-4
>>>>3.84 Mcps TDD					REL-4
>>>>>Timeslot number	MP		Integer (0..14)	Timeslot numbers, for which the UE shall report Timeslot ISCP	
>>>>>Burst Type	MD		Enumerated (Type1, Type2)	Use for Timeslot ISCP measurements only. Default value is "Type1"	
>>>>>1.28 Mcps TDD					REL-4
>>>>>>Timeslot number	MP		Integer (0..6)	Timeslot numbers, for which the UE shall report Timeslot ISCP	REL-4

Cell Selection and Re-selection Info	CV- <i>BCHopt</i>		Cell Selection and Re-selection for SIB11/12Info 10.3.2.4	This IE is absent for serving cell.	
--------------------------------------	-------------------	--	---	---	--

Condition	Explanation
<i>BCHopt</i>	This IE is Optional when sent in SYSTEM INFORMATION, Otherwise, the IE is not needed

CHANGE REQUEST

⌘ **25.331 CR 2352** ⌘ rev **-** ⌘ Current version: **4.13.0** ⌘

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘	Incorrect presence of UE-RadioAccessCapability extension in RRC CONNECTION SETUP COMPLETE
Source:	⌘	RAN WG2
Work item code:	⌘	TEI4
		Date: ⌘ 13/05/2004
Category:	⌘	F
		<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p>Use <u>one</u> of the following categories:</p> <p>F (correction)</p> <p>A (corresponds to a correction in an earlier release)</p> <p>B (addition of feature),</p> <p>C (functional modification of feature)</p> <p>D (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p> </div> <div style="width: 35%;"> <p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2)</p> <p>R96 (Release 1996)</p> <p>R97 (Release 1997)</p> <p>R98 (Release 1998)</p> <p>R99 (Release 1999)</p> <p>Rel-4 (Release 4)</p> <p>Rel-5 (Release 5)</p> <p>Rel-6 (Release 6)</p> </div> </div>

Reason for change:	⌘	The IE "UE-RadioAccessCapability-v4b0ext" is provided as <i>mandatory present</i> in the ASN.1 representation of the RRC Connection Setup Complete message and other messages in this TS (the UE Capability Information and the SRNS Relocation Info messages), although the presence of the UE radio access capabilities should be <i>optional</i> (according to the tabular and the procedure requirements). If the information is not required by the UTRAN in the RRC Connection Setup message, it is unclear how the UE may set this information in the competition message.
Summary of change:	⌘	The IE "UE-RadioAccessCapability-v4b0ext" is made OPTIONAL in the the RRC Connection Setup Complete message and other messages where it is present.
Consequences if not approved:	⌘	<p>The unnecessary information in the RRC Connection Setup Complete message remains and the expected contents of that is unclear. The unnecessary information sent by the UE might be misinterpreted by the UTRAN.</p> <p>Isolated impact analysis</p> <p>The transfer syntax of the RRC Connection Setup Complete message and other messages is modified. A correct implementation is needed by both enteties, otherwise the the UE capabilities might not be correctly interpreted by the UTRAN.</p>

Clauses affected:	⌘	11.2, 11.5		
		<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">Y</td> <td style="padding: 2px 5px;">N</td> </tr> </table>	Y	N
Y	N			

Other specs affected:	⌘	<input checked="" type="checkbox"/>	Other core specifications	⌘	
		<input checked="" type="checkbox"/>	Test specifications		
		<input checked="" type="checkbox"/>	O&M Specifications		
Other comments:	⌘				


```

-- 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-IEs,
        laterNonCriticalExtensions      SEQUENCE {
          -- Container for additional R99 extensions
          ueCapabilityInformation-r3-add-ext BIT STRING OPTIONAL,
          -- Reserved for future non critical extension
          v4b0NonCriticalExtensions      SEQUENCE {
            ueCapabilityInformation-v4b0ext UECapabilityInformation-v4b0ext,
            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-IEs ::= SEQUENCE {
  -- User equipment IEs
  ue-RadioAccessCapability-v3a0ext UE-RadioAccessCapability-v3a0ext OPTIONAL
}

UECapabilityInformation-v4b0ext ::= SEQUENCE {
  -- User equipment IEs
  ue-RadioAccessCapability-v4b0ext UE-RadioAccessCapability-v4b0ext OPTIONAL
}
:

```

11.3 Information element definitions

```

:
UE-RadioAccessCapability-v4b0ext ::= SEQUENCE {
  pdcp-Capability-r4-ext          PDCP-Capability-r4-ext,
  tdd-CapabilityExt              SEQUENCE {
    rf-Capability                 RF-Capability-r4-ext,
    physicalChannelCapability-LCR   PhysicalChannelCapability-LCR-r4,
    measurementCapability-r4-ext    MeasurementCapability-r4-ext
  } OPTIONAL,
  -- IE " AccessStratumReleaseIndicator" is not needed in RRC CONNECTION SETUP COMPLETE
  accessStratumReleaseIndicator   AccessStratumReleaseIndicator OPTIONAL
}
:

```

11.5 RRC information between network nodes

```

:
-- *****
--
-- SRNC Relocation information
--
-- *****

SRNC-RelocationInfo-r3 ::= CHOICE {
  r3
    SEQUENCE {
      SRNC-RelocationInfo-r3
      SRNC-RelocationInfo-r3-IEs,
      v380NonCriticalExtensions
      SEQUENCE {
        SRNC-RelocationInfo-v380ext
        SRNC-RelocationInfo-v380ext-IEs,
        -- Reserved for future non critical extension
      }
      v390NonCriticalExtensions
      SEQUENCE {
        SRNC-RelocationInfo-v390ext
        SRNC-RelocationInfo-v390ext-IEs,
        v3a0NonCriticalExtensions
        SEQUENCE {
          SRNC-RelocationInfo-v3a0ext
          SRNC-RelocationInfo-v3a0ext-IEs,
          v3b0NonCriticalExtensions
          SEQUENCE {
            SRNC-RelocationInfo-v3b0ext
            SRNC-RelocationInfo-v3b0ext-IEs,
            v3c0NonCriticalExtensions
            SEQUENCE {
              SRNC-RelocationInfo-v3c0ext
              SRNC-RelocationInfo-v3c0ext-IEs,
              laterNonCriticalExtensions
              SEQUENCE {
                SRNC-RelocationInfo-v3d0ext
                SRNC-RelocationInfo-v3d0ext-IEs,
                -- Container for additional R99 extensions
                SRNC-RelocationInfo-r3-add-ext
                BIT STRING
                (CONTAINING SRNC-RelocationInfo-v3h0ext-IEs)
                OPTIONAL,
                v3g0NonCriticalExtensions
                SEQUENCE {
                  SRNC-RelocationInfo-v3g0ext
                  SRNC-RelocationInfo-v3g0ext-IEs,
                  v4b0NonCriticalExtensions
                  SEQUENCE {
                    SRNC-RelocationInfo-v4b0ext
                    SRNC-RelocationInfo-v4b0ext-IEs,
                    -- Reserved for future non critical extension
                    nonCriticalExtensions
                    SEQUENCE {} OPTIONAL
                  }
                } OPTIONAL
              } OPTIONAL
            } OPTIONAL
          } OPTIONAL
        } OPTIONAL
      } OPTIONAL
    } OPTIONAL
  },
  later-than-r3
  CHOICE {
    r4
      SEQUENCE {
        SRNC-RelocationInfo-r4
        SRNC-RelocationInfo-r4-IEs,
        v4d0NonCriticalExtensions
        SEQUENCE {
          SRNC-RelocationInfo-v4c0ext
          SRNC-RelocationInfo-v4c0ext-IEs,
          -- Container for adding non critical extensions after freezing REL-5
          SRNC-RelocationInfo-r4-add-ext
          BIT STRING
          OPTIONAL,
          nonCriticalExtensions
          SEQUENCE {} OPTIONAL
        }
      } OPTIONAL
    },
    criticalExtensions
    SEQUENCE {}
  }
}

SRNC-RelocationInfo-r3-IEs ::= SEQUENCE {
  -- Non-RRC IEs
  stateOfRRC
  StateOfRRC,
  stateOfRRC-Procedure
  StateOfRRC-Procedure,
  -- Ciphering related information IEs
  -- If the extension v380 is included use the extension for the ciphering status per CN domain
  cipheringStatus
  CipheringStatus,
  calculationTimeForCiphering
  CalculationTimeForCiphering
  OPTIONAL,
  -- The order of occurrence in the IE cipheringInfoPerRB-List is the
  -- same as the RBs in SRB-InformationSetupList in RAB-InformationSetupList.
  -- The signalling RBs are supposed to be listed
  -- first. Only UM and AM RBs that are ciphered are listed here
  cipheringInfoPerRB-List
  CipheringInfoPerRB-List
  OPTIONAL,
  count-C-List
  COUNT-C-List
  OPTIONAL,
  integrityProtectionStatus
  IntegrityProtectionStatus,
  -- In the IE srb-SpecificIntegrityProtInfo, the first information listed corresponds to
  -- signalling radio bearer RB0 and after the order of occurrence is the same as the SRBs in
  -- SRB-InformationSetupList

```

```

    srb-SpecificIntegrityProtInfo      SRB-SpecificIntegrityProtInfoList,
    implementationSpecificParams      ImplementationSpecificParams      OPTIONAL,
-- User equipment IEs
    u-RNTI                             U-RNTI,
    c-RNTI                             C-RNTI                             OPTIONAL,
    ue-RadioAccessCapability          UE-RadioAccessCapability,
    ue-Positioning-LastKnownPos      UE-Positioning-LastKnownPos      OPTIONAL,
-- Other IEs
    ue-RATSpecificCapability          InterRAT-UE-RadioAccessCapabilityList  OPTIONAL,
-- UTRAN mobility IEs
    ura-Identity                      URA-Identity                      OPTIONAL,
-- Core network IEs
    cn-CommonGSM-MAP-NAS-SysInfo      NAS-SystemInformationGSM-MAP,
    cn-DomainInformationList          CN-DomainInformationList          OPTIONAL,
-- Measurement IEs
    ongoingMeasRepList                OngoingMeasRepList                OPTIONAL,
-- Radio bearer IEs
    predefinedConfigStatusList        PredefinedConfigStatusList,
    srb-InformationList               SRB-InformationSetupList,
    rab-InformationList               RAB-InformationSetupList          OPTIONAL,
-- Transport channel IEs
    ul-CommonTransChInfo              UL-CommonTransChInfo              OPTIONAL,
    ul-TransChInfoList                UL-AddReconfTransChInfoList      OPTIONAL,
    modeSpecificInfo                   CHOICE {
        fdd                             SEQUENCE {
            cpch-SetID                  CPCH-SetID                        OPTIONAL,
            transChDRAC-Info            DRAC-StaticInformationList        OPTIONAL
        },
        tdd                             NULL
    },
    dl-CommonTransChInfo              DL-CommonTransChInfo              OPTIONAL,
    dl-TransChInfoList                DL-AddReconfTransChInfoList      OPTIONAL,
-- Measurement report
    measurementReport                 MeasurementReport                  OPTIONAL
}

SRNC-RelocationInfo-v380ext-IEs ::= SEQUENCE {
-- Ciphering related information IEs
    cn-DomainIdentity                 CN-DomainIdentity,
    cipheringStatusList                CipheringStatusList
}

SRNC-RelocationInfo-v390ext-IEs ::= SEQUENCE {
    cn-DomainInformationList-v390ext   CN-DomainInformationList-v390ext   OPTIONAL,
    ue-RadioAccessCapability-v370ext   UE-RadioAccessCapability-v370ext   OPTIONAL,
    ue-RadioAccessCapability-v380ext   UE-RadioAccessCapability-v380ext   OPTIONAL,
    dl-PhysChCapabilityFDD-v380ext     DL-PhysChCapabilityFDD-v380ext,
    failureCauseWithProtErr           FailureCauseWithProtErr            OPTIONAL
}

SRNC-RelocationInfo-v3a0ext-IEs ::= SEQUENCE {
    cipheringInfoForSRB1-v3a0ext       CipheringInfoPerRB-List-v3a0ext,
    ue-RadioAccessCapability-v3a0ext   UE-RadioAccessCapability-v3a0ext   OPTIONAL,
-- cn-domain identity for IE startValueForCiphering-v3a0ext is specified
-- in subsequent extension (SRNC-RelocationInfo-v3b0ext-IEs)
    startValueForCiphering-v3a0ext     START-Value
}

SRNC-RelocationInfo-v3b0ext-IEs ::= SEQUENCE {
-- cn-domain identity for IE startValueForCiphering-v3a0ext included in previous extension
    cn-DomainIdentity                 CN-DomainIdentity,
-- the remaining start values are contained in IE startValueForCiphering-v3b0ext
    startValueForCiphering-v3b0ext     STARTList2                          OPTIONAL
}

SRNC-RelocationInfo-v3c0ext-IEs ::= SEQUENCE {
-- IE rb-IdentityForHOMessage includes the identity of the RB used by the source SRNC
-- to send the message contained in the IE "TargetRNC-ToSourceRNC-Container".
-- Only included if type is "UE involved"
    rb-IdentityForHOMessage           RB-Identity                          OPTIONAL
}

SRNC-RelocationInfo-v3d0ext-IEs ::= SEQUENCE {
-- User equipment IEs
    uESpecificBehaviourInformationIdle  UESpecificBehaviourInformationIdle  OPTIONAL,
    uESpecificBehaviourInformationInterRAT  UESpecificBehaviourInformationInterRAT
    OPTIONAL
}

```

```
SRNC-RelocationInfo-v3g0ext-IEs ::= SEQUENCE {
    ue-RadioAccessCapability-v3g0ext    UE-RadioAccessCapability-v3g0ext    OPTIONAL
}
```

```
SRNC-RelocationInfo-v3h0ext-IEs ::= SEQUENCE {
    tpc-CombinationInfoList            TPC-CombinationInfoList            OPTIONAL,
    nonCriticalExtension                SEQUENCE {}                      OPTIONAL
}
```

```
SRNC-RelocationInfo-v4c0ext-IEs ::= SEQUENCE {
    tpc-CombinationInfoList            TPC-CombinationInfoList            OPTIONAL
}
```

```
TPC-CombinationInfoList ::= SEQUENCE (SIZE (1..maxRL)) OF
    TPC-Combination-Info
```

```
STARTList2 ::=
    SEQUENCE (SIZE (2..maxCNdomains)) OF
    STARTSingle
```

```
SRNC-RelocationInfo-v4b0ext-IEs ::= SEQUENCE {
    ue-RadioAccessCapability-v4b0ext    UE-RadioAccessCapability-v4b0ext OPTIONAL
}
```

```
:
```