TSG-RAN Meeting #20 ***RP-030298***
Hämeenlinna, Finland, 03-06 June 2003

Title: **CRs (Rel-4 and Rel-5 category A) to TS 25.331**

Source: **TSG-RAN WG2**

Agenda item: **7.2.4**

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.331	1982	-	Rel-4	ROHC profile signalling	F	4.9.0	4.10.0	R2-031439	TEI4
25.331	1983	-	Rel-5	ROHC profile signalling	A	5.4.0	5.5.0	R2-031440	TEI4
25.331	1984	-	Rel-4	Optimisation of the INTER RAT HANDOVER INFO message	C	4.9.0	4.10.0	R2-031461	TEI4
25.331	1959	1	Rel-5	Optimisation of the INTER RAT HANDOVER INFO message	C	5.4.0	5.5.0	R2-031442	TEI5

3GPP TSG-RAN WG2 #36 ***R3-031442***
Paris, France, 19th – 23rd May 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1959** ⌘ **rev** **1** ⌘ Current version: **5.4.0** ⌘

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

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Optimisation of the INTER RAT HANDOVER INFO message
Source:	⌘	RAN WG2
Work item code:	⌘	TEI5
Date:	⌘	22/05/2003
Category:	⌘	**C**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

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

Reason for change:	⌘	In current Rel'5 when all of the pre-defined configurations stored by the UE are sent by the UE to the RAN during GSM call setup, the additional call setup delay may be in the region of 900 ms. In order to fully utilise the function of the pre-defined configurations, i.e. by providing NO limitation on the possibilities for the immediate radio bearer selection by the UTRAN, whilst at the same time minimising GSM call setup delay as much as possible, it is necessary to provide an optimisation of the INTER RAT HANDOVER INFO message. This particular change means a reduction in call setup delay in such cases by 500ms.
Summary of change:	⌘	1) A re-coding of the pre-defined configuration information has been carried out. 2) A recoding and/or emission of some of the UE radio access capabilities has been carried out, thus further reducing the GSM call setup delay. 3) This CR removes not essential REL-4 UE capability extensions from the INTER RAT HANDOVER INFO
Consequences if not approved:	⌘	If this change is not approved, the size of the INTER RAT Handover Info message will continue to be large (in some cases in the region of 900ms).

Clauses affected:	⌘	8.1.16; 10.2.16d; 10.3.3.xx (new), 10.3.3.xy (new), 10.3.3.xz (new), 10.3.4.xx (new), 11.2, 11.3

	Y	N			
Other specs affected: ⌘		X	Other core specifications	⌘	GERAN specifications
		X	Test specifications		

	X	O&M Specifications
Other comments:	⌘	From now on, the general principle should be to omit capabilities from the inter RAT handover info message, unless we idenfify a clear need – this is a change of principle. Removal of unimportant info included in r4 is covered by a backards shadow CR

How to create CRs using this form:

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

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

8.1.16 Inter RAT handover information transfer

Figure 8.1.16-1: Inter RAT handover information transfer, normal flow

8.1.16.1 General

The inter RAT handover information transfer procedure is used by the UE to convey RRC information needed for inter RAT handover to UTRAN.

8.1.16.2 Initiation

If:

- a radio access technology other than UTRA, e.g. GSM, using radio access technology-specific procedures, orders the UE to provide the INTER RAT HANDOVER INFO message; or
- a radio access technology other than UTRA, e.g. GSM, using radio access technology-specific procedures, configures the UE to send the INTER RAT HANDOVER INFO message upon system specific conditions not involving an explicit order e.g. early classmark sending upon entering connected mode; or
- while in connected mode using another radio access technology, the inter RAT handover info changes compared to what has previously been sent via the other radio access technology:

the UE shall:

1> initiate the inter RAT handover information transfer procedure.

To determine if the inter RAT handover info has changed compared to what has previously been sent, the UE shall:

1> store the information last sent in the variable INTER_RAT_HANDOVER_INFO_TRANSFERRED;

1> if this variable has not yet been set:

2> not initiate the inter RAT handover information transfer procedure due to change of inter RAT handover info.

NOTE: Currently neither the UE security information nor the predefined configuration status information change while in connected mode using GSM radio access technology.

8.1.16.3 INTER RAT HANDOVER INFO message contents to set

The UE shall:

1> include the IE "UE security information" and;

1> not include the IE "UE Specific Behaviour Information 1 interRAT".

1> in case ~~the other radio access technology indicates~~ support for the compressed version of the inter RAT handover info is indicated via the other radio access technology:

2> in case the other radio access technology indicates the number of pre- defined configurations mandatory to report:

3> omit reporting (some) of the pre- defined configurations beyond the number indicated by the other radio access technology ~~provided~~ if this makes the INTER RAT HANDOVER INFO message ~~obey~~ size ~~constraints defined~~ optimised for the other radio access technology

Note In case of GSM, the omission of pre- defined configurations applies in case it makes the message fit within ~~the single~~ one LapDm segment on the radio interface.

2> include of the following IEs the IE that after encoding has the smallest size: IE "Predefined configuration status information compressed" or the IE "Predefined configuration status information".

2> include the IE "UE radio access capability compressed".

1> else:

~~1~~2> include the IE "Predefined configuration status information" ~~and the IE "UE security information"~~;

~~1~~2> include the IE "UE capability container", containing the IE "UE radio access capability" and the IE "UE radio access capability extension", in accordance with the following:

~~2~~3> if the UE supports multiple UTRA FDD Frequency Bands; or

~~2~~3> if the UE supports a single UTRA FDD Frequency Band different from 2100 MHz:

~~3~~4> include the IE "UE radio access capability", excluding IEs "RF capability FDD" and "Measurement capability";

~~3~~4> include the IE "UE radio access capability extension", including the IEs "RF capability FDD extension" and the "Measurement capability extension" associated with each supported UTRA FDD frequency band indicated in the IE "Frequency band".

~~2~~3> else:

~~3~~4> include the IE "UE radio access capability", including the IEs "RF capability FDD" and "Measurement capability" associated with the 2100 MHz UTRA FDD frequency band;

~~3~~4> include the IE "UE radio access capability extension", including the IEs "RF capability FDD extension" and the "Measurement capability extension" associated with each supported UTRA FDD frequency band indicated in the IE "Frequency band".

~~1> not include the IE "UE Specific Behaviour Information 1 interRAT".~~

1> initiate the transfer of the INTER RAT HANDOVER INFO message via the other radio access technology, using radio access technology-specific procedures;

1> store the following in the variable INTER_RAT_HANDOVER_INFO_TRANSFERRED if they were included in the INTER RAT HANDOVER INFO message:

2> IE "Predefined configuration status information",

2> the IE "UE security information",

2> the IE "UE radio access capability", ~~and~~

2> the IE "UE radio access capability extension",

2> the IE "UE radio access capability compressed" ~~if included in the INTER RAT HANDOVER MESSAGE, in variable INTER_RAT_HANDOVER_INFO_TRANSFERRED~~;

1> and the procedure ends.

10.2.16d INTER RAT HANDOVER INFO

This message is sent by the UE via another radio access technology to provide information to the target RNC when preparing for a handover to UTRAN.

RLC-SAP: N/A (Sent through a different RAT)

Logical channel: N/A (Sent through a different RAT)

Direction: UE → UTRAN

Information Element/Group Name	Need	Multi	Type and reference	Semantics description	Version
Radio Bearer IEs					
Predefined configuration status information	OP		Predefined configuration status information 10.3.4.5a		
Predefined configuration status information compressed	OP		Predefined configuration status information compressed 10.3.4.xx		REL-5
UE Information elements					
UE security information	OP		UE security information 10.3.3.42b		
>UE Specific Behaviour Information 1 interRAT	OP		UE Specific Behaviour Information 1 interRAT 10.3.3.52	This IE shall not be included in this version of the protocol	
UE capability container	OP				
>UE radio access capability	MP		UE radio access capability 10.3.3.42		
>UE radio access capability extension	MP		UE radio access capability extension 10.3.3.42a	Although this IE is not always required, the need has been set to MP to align with the ASN.1	
UE radio access capability compressed	OP		UE radio access capability compressed 10.3.3.xx		REL-5

10.3.3.xx UE radio access capability compressed

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Access stratum release indicator	MP		Enumerated(R99, REL-4, REL-5)	13 spare values are needed	REL-5
Total AM RLC buffer size exceeds 10 kByte	MP		BOOLEAN		REL-5
RF capability compressed	MP		RF capability compressed 10.3.3.xy		REL-5

10.3.3.xy RF Capability Compressed

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
CHOICE *FDD*	MP				REL-5
>Supported					REL-5
>>RF capability band FDD list Compressed	MP	1..<maxfreqbandsFDD>			REL-5
>>>RF Capability Band FDD Compressed	MP		Enumerated (not supported, 190, 174.8-205.2, 134.8-245.2)	In MHz adefined in [21]. NOTE: Not applicable if UE is not operating in frequency band a (as defined in [21]).	REL-5
>Not supported			NULL		REL-5
CHOICE *TDD*	MP				REL-5
>Supported					REL-5
>>Chip Rate Capability	MP		Enumerated (3.84Mcps, 1.28Mcps)	As defined in [22]	REL-5
>>Radio Frequency Band TDD List	MP		Enumerated (a, b, c, a+b, a+c, b+c, a+b+c)	As defined in [22]. One spare value needed	REL-5
>Not supported			NULL		REL-5

10.3.4.xx Predefined configuration status information compressed

Another system may provide the UE with one or more predefined UTRAN configurations, comprising of radio bearer, transport channel and physical channel parameters. If requested, the UE shall indicate the configurations it has stored. The compressed predefined configuration status information should include the following RRC information.

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Sets with different value tags	MP				REL-5
>Pre-defined configuration set with different value tags	MP	1..2			REL-5
>>Start position	MD		INTEGER (0..10)	Default value is 0, corresponding with the first pre-defined configuration. The pre-defined configuration where the consecutive sequence of pre-defined configurations begins.	REL-5
>>Pre-defined configuration value tag list	MP	6..<max predefconfig>	Pre-defined configuration value tag 10.3.4.6	Value Tags for each pre-defined configuration starting from the lowest.	REL-5
Other Entries	OP				REL-5
>Pre-defined configuration list with variable size	MP	1..<max predefconfig>	Predefined Configuration Status Information 10.3.4.5a	List of other pre-defined configurations not included within the Sets with different value tags, in consecutive order starting with the lowest. Not stored pre- defined configurations appearing at the end of the list need not be included.	REL-5

11.2 PDU definitions

Note for CR implementation: CompactInterRATHandoverInfo-v5xyext to be added to import list

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

InterRATHandoverInfo ::= SEQUENCE {
    -- This structure is defined for historical reasons, backward compatibility with 04.18
    predefinedConfigStatusList      CHOICE {
        absent                          NULL,
        present                         PredefinedConfigStatusList
    },
    uE-SecurityInformation          CHOICE {
        absent                          NULL,
        present                         UE-SecurityInformation
    },
    ue-CapabilityContainer          CHOICE {
        absent                          NULL,
        -- present is an octet aligned string containing IE UE-RadioAccessCapabilityInfo
        present                         OCTET STRING (SIZE (0..63))
    },
    -- Non critical extensions
    v390NonCriticalExtensions       CHOICE {
        absent                          NULL,
        present                         SEQUENCE {
            interRATHandoverInfo-v390ext    InterRATHandoverInfo-v390ext-IEs,
            v3a0NonCriticalExtensions       SEQUENCE  {
                interRATHandoverInfo-v3a0ext    InterRATHandoverInfo-v3a0ext,
                laterNonCriticalExtensions      SEQUENCE {
                    interRATHandoverInfo-v3d0ext    InterRATHandoverInfo-v3d0ext-IEs,
                    -- Container for additional R99 extensions
                    interRATHandoverInfo-r3-add-ext     BIT STRING  OPTIONAL,
                    v4xyNonCriticalExtensions       SEQUENCE {
                        interRATHandoverInfo-v4xyext    InterRATHandoverInfo-v4xyext-IEs,
                        -- Reserved for future non critical extension
                        v5xyNonCriticalExtensions       SEQUENCE {
                            interRATHandoverInfo-v5xyext    InterRATHandoverInfo-v5xyext-IEs,
                            nonCriticalExtensions           SEQUENCE {} OPTIONAL
                        }   OPTIONAL
                    }   OPTIONAL
                }   OPTIONAL
            }   OPTIONAL
        }
    }
}

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

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

InterRATHandoverInfo-v3d0ext-IEs ::= SEQUENCE {
    -- User equipment IEs
        uESpecificBehaviourInformation1interRAT     UESpecificBehaviourInformation1interRAT
    OPTIONAL
}


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

InterRATHandoverInfo-v5xyext-IEs ::= SEQUENCE {
```

```
    -- User equipment IEs
        ue-RadioAccessCapability-v5xyext    UE-RadioAccessCapability-v5xyext
        predefinedConfigStatusListComp      PredefinedConfigStatusListComp          OPTIONAL,
        ue-RadioAccessCapabilityComp        UE-RadioAccessCapabilityComp            OPTIONAL
}
```

11.3 Information element definitions

```
**************************************
UNCHANGED ASN.1 OMITTED
**************************************


-- ************************************************
--
--     USER EQUIPMENT INFORMATION ELEMENTS (10.3.3)
--
-- ************************************************

UE-RadioAccessCapability-v4xyext ::=    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
}

UE-RadioAccessCapabilityComp::= SEQUENCE {
    totalAM-RLCMemoryExceeds10kB            BOOLEAN,
    rf-CapabilityComp                       RF-CapabilityComp
}

RF-capabilityComp::= SEQUENCE {
    fdd                     CHOICE {
       notSupported                         NULL,
       supported                            RF-CapabBandListFDDComp
    },
    tdd                     CHOICE {
       notSupported                         NULL,
       supported                            RF-CapabBandListTDDComp
    }
}

RF-CapabBandFDDComp::=  ENUMERATED { notSupported, mhz190,
                                     mhz174-8-205-2, mhz134-8-245-2 }

RF-CapabBandListFDDComp::=  SEQUENCE (SIZE (1..maxFreqBandsFDD)) OF
    -- the first entry corresponds with the first value of IE RadioFrequencyBandFDD,
    -- fdd2100, and so on
                                RF-CapabBandFDDComp


RF-CapabBandListTDDComp::= SEQUENCE {
           radioFrequencyBandTDDList    RadioFrequencyBandTDDList,
           chipRateCapability           ChipRateCapability
}
```

```
-- ************************************************
--
--     RADIO BEARER INFORMATION ELEMENTS (10.3.4)
--
-- ************************************************

PredefinedConfigStatusListComp::= SEQUENCE {
    setsWithDifferentValueTag           PredefinedConfigSetsWithDifferentValueTag,
    otherEntries                        PredefinedConfigStatusListVarSz             OPTIONAL
}


PredefinedConfigSetsWithDifferentValueTag::= SEQUENCE (SIZE (1..2)) OF
                                            PredefinedConfigSetSetWithDifferentValueTag}

PredefinedConfigSetWithDifferentValueTag::= SEQUENCE {
    startPosition                           INTEGER (0..10)     DEFAULT 0,
    -- numberOfEntries                      INTEGER (6..16),
    -- numberOfEntries is covered by the size of the list in IE PredefinedConfigValueTagList
    valueTagList                            PredefinedConfigValueTagList
}


PredefinedConfigValueTagList::=     SEQUENCE (SIZE (1..maxPredefConfig)) OF
                                        PredefinedConfigValueTag

PredefinedConfigStatusListVarSz ::=     SEQUENCE (SIZE (1..maxPredefConfig)) OF
                                        PredefinedConfigStatusInfo
```

13.4.10a INTER_RAT_HANDOVER_INFO_TRANSFERRED

This variable stores information about the inter RAT handover info that has been transferred to another RAT.

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Predefined configuration status information	OP		Predefined configuration status information 10.3.4.5a	Cleared upon entering connected mode in another RAT	
Predefined configuration status information compressed	OP		Predefined configuration status information compressed 10.3.4.xx	Cleared upon entering connected mode in another RAT	REL-5
UE security information	OP		UE security information 10.3.3.42b	Cleared upon entering connected mode in another RAT	
UE radio access capability	OP		UE radio access capability 10.3.3.42	Cleared upon entering connected mode in another RAT	
UE radio access capability extension	OP		UE radio access capability extension 10.3.3.42a	Cleared upon entering connected mode in another RAT	
UE radio access capability compressed	OP		UE radio access capability compressed 10.3.3.xx		REL-5
UE system specific capability	OP	1 to <maxSystemCapability>	Inter-RAT UE radio access capability 10.3.8.7	Cleared upon entering connected mode in another RAT	
>Inter-RAT UE radio access capability	MP		Inter-RAT UE radio access capability 10.3.8.7		

TSG-RAN Working Group 2 Meeting #36 **R2-031439**
Paris, France, 19th – 23rd May 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1982** ⌘ **rev** **-** ⌘ Current version: **4.9.0** ⌘

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Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	ROHC profile signalling
Source:	⌘	RAN WG2
Work item code:	⌘	TEI4
Date:	⌘	April 2003
Category:	⌘	**F**
Release:	⌘	Rel-4

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R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Currently the profiles signalled in the IE "PDCP info" are not clearly linked to the profile id's specified by IANA or the PROFILES parameters used by RFC3095.
Summary of change:	⌘	1. It is clarified that the profiles signalled in the PDCP Info form the contents of the PROFILES parameter used by RFC3095 for both UL and DL. 2. It is clarified that the UE in this version of the specification shall support ROHC profiles 0x0000, 0x0001, 0x0002 and 0x0003. 3. The profile signalling is made applicable to both UL and DL.
Consequences if not approved:	⌘	Indicated unclarity will remain.

Clauses affected:	⌘	2; 8.6.4.10; 10.3.4.2; 11.3			
Other specs Affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document.*

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 25.301: "Radio Interface Protocol Architecture".

[3] 3GPP TS 25.303: "Interlayer Procedures in Connected Mode".

[4] 3GPP TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode".

[5] 3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core Network Protocols; Stage 3".

[6] 3GPP TS 25.103: "RF parameters in support of RRM".

[7] 3GPP TS 25.215: "Physical layer – Measurements (FDD)".

[8] 3GPP TS 25.225: "Physical layer – Measurements (TDD)".

[9] 3GPP TS 25.401: "UTRAN overall description".

[10] 3GPP TS 25.402: "Synchronization in UTRAN; Stage 2".

[11] 3GPP TS 23.003: "Numbering, addressing and identification".

[12] ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface".

[13] RTCM-SC104: "RTCM Recommended Standards for Differential GNSS Service (v.2.2)".

[14] 3GPP TR 25.921: "Guidelines and principles for protocol description and error handling".

[15] 3GPP TS 25.321: "Medium Access Control (MAC) protocol specification".

[16] 3GPP TS 25.322: "Radio Link Control (RLC) protocol specification".

[17] 3GPP TS 24.007: "Mobile radio interface signalling layer 3; General aspects".

[18] 3GPP TS 25.305: "Stage 2 Functional Specification of UE Positioning in UTRAN".

[19] 3GPP TS 25.133: "Requirements for Support of Radio Resource Management (FDD)".

[20] 3GPP TS 25.123: "Requirements for Support of Radio Resource Management (TDD)".

[21] 3GPP TS 25.101: "UE Radio Transmission and Reception (FDD)".

[22] 3GPP TS 25.102: "UE Radio Transmission and Reception (TDD)".

[23] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[24] 3GPP TS 23.032: "Universal Geographical Area Description (GAD)".

[25] 3GPP TS 23.122: "Non-Access-Stratum functions related to Mobile Station (MS) in idle mode".

[26] 3GPP TS 25.211: "Physical channels and mapping of transport channels onto physical channels (FDD)".

[27] 3GPP TS 25.212: "Multiplexing and channel coding (FDD)".

[28] 3GPP TS 25.213: "Spreading and modulation (FDD)".

[29] 3GPP TS 25.214: "Physical layer procedures (FDD)".

[30] 3GPP TS 25.221: "Physical channels and mapping of transport channels onto physical channels (TDD)".

[31] 3GPP TS 25.222: "Multiplexing and channel coding (TDD)".

[32] 3GPP TS 25.223: "Spreading and modulation (TDD)".

[33] 3GPP TS 25.224: "Physical Layer Procedures (TDD)".

[34] 3GPP TS 25.302: "Services provided by the physical layer ".

[35] 3GPP TS 25.306 "UE Radio Access Capabilities".

[36] 3GPP TS 25.323: "Packet Data Convergence Protocol (PDCP) Specification".

[37] 3GPP TS 25.324: "Broadcast/Multicast Control BMC".

[38] 3GPP TR 25.922: "Radio resource management strategies".

[39] 3GPP TR 25.925: "Radio interface for broadcast/multicast services".

[40] 3GPP TS 33.102: "3G Security; Security Architecture".

[41] 3GPP TS 34.108: "Common Test Environments for User Equipment (UE) Conformance Testing".

[42] 3GPP TS 34.123-2: "User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".

[43] 3GPP TS 44.018: "Mobile radio interface layer 3 specification; Radio Resource Control Protocol".

[44] 3GPP TS 44.060: "General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control/Medium Access Control (RLC/MAC) protocol".

[45] 3GPP TS 45.005: "Radio transmission and reception".

[46] 3GPP TS 45.008: "Radio subsystem link control".

[47] ITU-T Recommendation X.680 (12/97) "Information Technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".

[48] ITU-T Recommendation X.681 (12/97) "Information Technology - Abstract Syntax Notation One (ASN.1): Information object specification".

[49] ITU-T Recommendation X.691 (12/97) "Information technology - ASN.1 encoding rules: Specification of Packed Encoding Rules (PER)".

[50] 3GPP TS 31.102: "Characteristics of the USIM Application".

[51] IANA ROHC profile identifier definition (http://www.iana.org/assignments/rohc-pro-ids)

8.6.4.10 PDCP Info

For RFC 3095:

1> the chosen MAX_CID shall not be greater than the value "Maximum number of ROHC context sessions" as indicated in the IE "PDCP Capability";

1> the configuration for the PACKET_SIZES_ALLOWED is FFS.

If IE "PDCP info" is included, the UE shall:

1> if the radio bearer is connected to a CS domain radio access bearer:

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the IE "PDCP PDU header" is set to the value "absent":

2> if the IE "Support for lossless SRNS relocation" is true:

3> set the variable INVALID_CONFIGURATION to TRUE.

1> if the IE "PDCP PDU header" is set to the value "present":

2> if the IE "Support for lossless SRNS relocation" is false:

3> if the IE "Header compression information" is absent:

4> set the variable INVALID_CONFIGURATION to TRUE.

1> if the IE "Header compression information" is absent:

2> not use Header compression after the successful completion of this procedure;

2> remove any stored configuration for the IE "Header compression information".

1> configure the PDCP entity for that radio bearer accordingly;

1> configure the RLC entity for that radio bearer according to the value of the IE "Support for lossless SRNS relocation".

1> set the PROFILES parameter, used by inband ROHC profile negotiation, for this PDCP entity for both UL and DL equal to the list of ROHC profiles received in the IE “PDCP info”. A UE complying to this version of the specification shall support ROHC profiles 0x0000 (ROHC uncompressed), 0x0001 (ROHC RTP), 0x0002 (ROHC UDP) and 0x0003 (ROHC ESP) (see [51]).

10.3.4.2 PDCP info

The purpose of the PDCP info IE is to indicate which algorithms shall be established and to configure the parameters of each of the algorithms.

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Support for lossless SRNS relocation	CV-*LosslessCriteria*		Boolean	TRUE means support	
Max PDCP SN window size	CV-*Lossless*		Enumerated(sn255, sn65535)	Maximum PDCP sequence number window size. The handling of sequence number when the Max PDCP SN window size is 255 is specified in [23].	
PDCP PDU header	MD		Enumerated (present, absent)	Whether a PDCP PDU header is existent or not. Default value is "present"	
Header compression information	OP	1 to <maxPDCPAlgoType>			
>CHOICE *algorithm type*	MP				
>>RFC 2507				Header compression according to IETF standard RFC 2507	
>>>F_MAX_PERIOD	MD		Integer (1..65535)	Largest number of compressed non-TCP headers that may be sent without sending a full header. Default value is 256.	
>>>F_MAX_TIME	MD		Integer (1..255)	Compressed headers may not be sent more than F_MAX_TIME seconds after sending last full header. Default value is 5.	
>>>MAX_HEADER	MD		Integer (60..65535)	The largest header size in octets that may be compressed. Default value is 168.	
>>>TCP_SPACE	MD		Integer (3..255)	Maximum CID value for TCP connections. Default value is 15.	
>>>NON_TCP_SPACE	MD		Integer (3..65535)	Maximum CID value for non-TCP connections. Default value is 15.	
>>>EXPECT_REORDERING	MD		Enumerated (reordering	Whether the algorithm shall	

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
			not expected, reordering expected)	reorder PDCP SDUs or not. Default value is "reordering not expected".	
>>RFC 3095				Header compression according to IETF standard RFC 3095	REL-4
>>>Profiles	MP	1 to <maxROHC-Profiles>		Profiles supported by both compressor and decompressor in both UE and UTRAN. Profile 0 shall always be supported.	REL-4
>>>>Profile instance	MP		Integer(1 .. 3)	1 = 0x0001, 2 = 0x0002, 3 = 0x0003 (see [51])	REL-4
>>>Uplink	OP			Indicates the necessary information elements for Uplink.	REL-4
>>>>CID inclusion info	MP		Enumerated (PDCP header, RFC3095 packet format)	Configures which method shall be used to carry RFC3095 CID values.	REL-4
>>>>Max_CID	MD		Integer (1.. 16383)	Highest context ID number to be used by the UE compressor. Default value is 15.	REL-4
~~>>>>Profiles~~	~~MP~~	~~1 to <maxROHC-Profiles>~~		~~Profiles supported by the UTRAN decompressor.~~	~~REL-4~~
~~>>>>>Profile instance~~	~~MP~~		~~Integer(1 .. 3)~~	~~Supported profile types. At least four spare values.~~	~~REL-4~~
>>>>Packet_Sizes_Allowed	OP	1 to <maxROHC-PacketSizes>		List of packet sizes that are allowed to be produced by the UE compressor.	REL-4
>>>>>Packet size	MP		Integer (2 .. 1500)	Packet size as defined in RFC 3095.	REL-4

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
>>>Downlink	OP			Indicates the necessary information elements for Downlink.	REL-4
>>>>CID inclusion info	MP		Enumerated (PDCP header, RFC3095 packet format)	Configures which method shall be used to carry RFC3095 CID values.	REL-4
>>>>Max_CID	MD		Integer (1.. 16383)	Highest context ID number to be used by the UE decompressor. Default value is 15.	REL-4
>>>>Reverse_Decompression_ Depth	MD		Integer (0..65535)	Determines whether reverse decompression should be used or not and the maximum number of packets that can be reverse decompressed by the UE decompressor. Default value is 0 (reverse decompression shall not be used).	REL-4

Condition	Explanation
LosslessCriteria	This IE is mandatory present if the IE "RLC mode" is "Acknowledged", the IE "In-sequence delivery " is "True" and the IE "SDU Discard Mode" is "No discard" and not needed otherwise.
Lossless	This IE is mandatory present if the IE "Support for lossless SRNS relocation" Is TRUE, otherwise it is not needed.

11.3 Information element definitions

```
-- **************************************************
--
--    RADIO BEARER INFORMATION ELEMENTS (10.3.4)
--
-- **************************************************

……


DL-RFC3095-r4 ::=                   SEQUENCE {
    cid-InclusionInfo                   CID-InclusionInfo-r4,
    max-CID                             INTEGER (1..16383)                  DEFAULT 15,
    reverseDecompressionDepth           INTEGER (0..65535)                  DEFAULT 0
}

.......

RFC3095-Info-r4 ::=             SEQUENCE {
    rohcProfileList                     ROHC-ProfileList-r4,
    ul-RFC3095                          UL-RFC3095-r4                       OPTIONAL,
    dl-RFC3095                          DL-RFC3095-r4                       OPTIONAL
}

.......

UL-RFC3095-r4 ::=                   SEQUENCE {
    cid-InclusionInfo                   CID-InclusionInfo-r4,
    max-CID                             INTEGER (1..16383)                  DEFAULT 15,
    rohcProfileList                     ROHC-ProfileList-r4,
    rohcPacketSizeList                  ROHC-PacketSizeList-r4
}
```

TSG-RAN Working Group 2 Meeting #36 **R2-031440**
Paris, France, 19th – 23rd May 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1983** ⌘ **rev** **-** ⌘ Current version: **5.4.0** ⌘

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

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	ROHC profile signalling
Source:	⌘	RAN WG2
Work item code:	⌘	TEI4
Date:	⌘	April 2003
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Currently the profiles signalled in the IE "PDCP info" are not clearly linked to the profile id's specified by IANA or the PROFILES parameters used by RFC3095.
Summary of change:	⌘	1. It is clarified that the profiles signalled in the PDCP Info form the contents of the PROFILES parameter used by RFC3095 for both UL and DL. 2. It is clarified that the UE in this version of the specification shall support ROHC profiles 0x0000, 0x0001, 0x0002 and 0x0003. 3. The profile signalling is made applicable to both UL and DL.
Consequences if not approved:	⌘	Indicated unclarity will remain.

Clauses affected:	⌘	2; 8.6.4.10; 10.3.4.2; 11.3

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

Other comments: ⌘

How to create CRs using this form:

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

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

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document.*

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 25.301: "Radio Interface Protocol Architecture".

[3] 3GPP TS 25.303: "Interlayer Procedures in Connected Mode".

[4] 3GPP TS 25.304: "UE Procedures in Idle Mode and Procedures for Cell Reselection in Connected Mode".

[5] 3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core Network Protocols; Stage 3".

[6] 3GPP TS 25.103: "RF parameters in support of RRM".

[7] 3GPP TS 25.215: "Physical layer – Measurements (FDD)".

[8] 3GPP TS 25.225: "Physical layer – Measurements (TDD)".

[9] 3GPP TS 25.401: "UTRAN overall description".

[10] 3GPP TS 25.402: "Synchronization in UTRAN; Stage 2".

[11] 3GPP TS 23.003: "Numbering, addressing and identification".

[12] ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface".

[13] RTCM-SC104: "RTCM Recommended Standards for Differential GNSS Service (v.2.2)".

[14] 3GPP TR 25.921: "Guidelines and principles for protocol description and error handling".

[15] 3GPP TS 25.321: "Medium Access Control (MAC) protocol specification".

[16] 3GPP TS 25.322: "Radio Link Control (RLC) protocol specification".

[17] 3GPP TS 24.007: "Mobile radio interface signalling layer 3; General aspects".

[18] 3GPP TS 25.305: "Stage 2 Functional Specification of UE Positioning in UTRAN".

[19] 3GPP TS 25.133: "Requirements for Support of Radio Resource Management (FDD)".

[20] 3GPP TS 25.123: "Requirements for Support of Radio Resource Management (TDD)".

[21] 3GPP TS 25.101: "UE Radio Transmission and Reception (FDD)".

[22] 3GPP TS 25.102: "UE Radio Transmission and Reception (TDD)".

[23] 3GPP TS 23.060: "General Packet Radio Service (GPRS); Service description; Stage 2".

[24] 3GPP TS 23.032: "Universal Geographical Area Description (GAD)".

[25] 3GPP TS 23.122: "Non-Access-Stratum functions related to Mobile Station (MS) in idle mode".

[26] 3GPP TS 25.211: "Physical channels and mapping of transport channels onto physical channels (FDD)".

[27] 3GPP TS 25.212: "Multiplexing and channel coding (FDD)".

[28] 3GPP TS 25.213: "Spreading and modulation (FDD)".

[29] 3GPP TS 25.214: "Physical layer procedures (FDD)".

[30] 3GPP TS 25.221: "Physical channels and mapping of transport channels onto physical channels (TDD)".

[31] 3GPP TS 25.222: "Multiplexing and channel coding (TDD)".

[32] 3GPP TS 25.223: "Spreading and modulation (TDD)".

[33] 3GPP TS 25.224: "Physical Layer Procedures (TDD)".

[34] 3GPP TS 25.302: "Services provided by the physical layer ".

[35] 3GPP TS 25.306 "UE Radio Access Capabilities".

[36] 3GPP TS 25.323: "Packet Data Convergence Protocol (PDCP) Specification".

[37] 3GPP TS 25.324: "Broadcast/Multicast Control BMC".

[38] 3GPP TR 25.922: "Radio resource management strategies".

[39] 3GPP TR 25.925: "Radio interface for broadcast/multicast services".

[40] 3GPP TS 33.102: "3G Security; Security Architecture".

[41] 3GPP TS 34.108: "Common Test Environments for User Equipment (UE) Conformance Testing".

[42] 3GPP TS 34.123-2: "User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".

[43] 3GPP TS 44.018: "Mobile radio interface layer 3 specification; Radio Resource Control Protocol".

[44] 3GPP TS 44.060: "General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control/Medium Access Control (RLC/MAC) protocol".

[45] 3GPP TS 45.005: "Radio transmission and reception".

[46] 3GPP TS 45.008: "Radio subsystem link control".

[47] ITU-T Recommendation X.680 (12/97) "Information Technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".

[48] ITU-T Recommendation X.681 (12/97) "Information Technology - Abstract Syntax Notation One (ASN.1): Information object specification".

[49] ITU-T Recommendation X.691 (12/97) "Information technology - ASN.1 encoding rules: Specification of Packed Encoding Rules (PER)".

[50] 3GPP TS 31.102: "Characteristics of the USIM Application".

[51] 3GPP TS 25.308: "High Speed Downlink Packet Access (HSDPA): Overall Description; Stage 2".

[52] IANA ROHC profile identifier definition (http://www.iana.org/assignments/rohc-pro-ids)

8.6.4.10 PDCP Info

For RFC 3095:

1> the chosen MAX_CID shall not be greater than the value "Maximum number of ROHC context sessions" as indicated in the IE "PDCP Capability";

1> the configuration for the PACKET_SIZES_ALLOWED is FFS.

If IE "PDCP info" is included, the UE shall:

1> if the radio bearer is connected to a CS domain radio access bearer:

2> set the variable INVALID_CONFIGURATION to TRUE.

1> if the IE "PDCP PDU header" is set to the value "absent":

2> if the IE "Support for lossless SRNS relocation" is true:

3> set the variable INVALID_CONFIGURATION to TRUE.

1> if the IE "PDCP PDU header" is set to the value "present":

2> if the IE "Support for lossless SRNS relocation" is false:

3> if the IE "Header compression information" is absent:

4> set the variable INVALID_CONFIGURATION to TRUE.

1> if the IE "Header compression information" is absent:

2> not use Header compression after the successful completion of this procedure;

2> remove any stored configuration for the IE "Header compression information".

1> configure the PDCP entity for that radio bearer accordingly;

1> configure the RLC entity for that radio bearer according to the value of the IE "Support for lossless SRNS relocation".

1> set the PROFILES parameter, used by inband ROHC profile negotiation, for this PDCP entity for both UL and DL equal to the list of ROHC profiles received in the IE “PDCP info”. A UE complying to this version of the specification shall support ROHC profiles 0x0000 (ROHC uncompressed), 0x0001 (ROHC RTP), 0x0002 (ROHC UDP) and 0x0003 (ROHC ESP) (see [52]).

10.3.4.2 PDCP info

The purpose of the PDCP info IE is to indicate which algorithms shall be established and to configure the parameters of each of the algorithms.

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Support for lossless SRNS relocation	CV-*LosslessCriteria*		Boolean	TRUE means support	
Max PDCP SN window size	CV-*Lossless*		Enumerated(sn255, sn65535)	Maximum PDCP sequence number window size. The handling of sequence number when the Max PDCP SN window size is 255 is specified in [23].	
PDCP PDU header	MD		Enumerated (present, absent)	Whether a PDCP PDU header is existent or not. Default value is "present"	
Header compression information	OP	1 to <maxPDCPAlgoType>			
>CHOICE *algorithm type*	MP				
>>RFC 2507				Header compression according to IETF standard RFC 2507	
>>>F_MAX_PERIOD	MD		Integer (1..65535)	Largest number of compressed non-TCP headers that may be sent without sending a full header. Default value is 256.	
>>>F_MAX_TIME	MD		Integer (1..255)	Compressed headers may not be sent more than F_MAX_TIME seconds after sending last full header. Default value is 5.	
>>>MAX_HEADER	MD		Integer (60..65535)	The largest header size in octets that may be compressed. Default value is 168.	
>>>TCP_SPACE	MD		Integer (3..255)	Maximum CID value for TCP connections. Default value is 15.	
>>>NON_TCP_SPACE	MD		Integer (3..65535)	Maximum CID value for non-TCP connections. Default value is 15.	
>>>EXPECT_REORDERING	MD		Enumerated (reordering	Whether the algorithm shall	

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
			not expected, reordering expected)	reorder PDCP SDUs or not. Default value is "reordering not expected".	
>>RFC 3095				Header compression according to IETF standard RFC 3095	REL-4
>>>Profiles	MP	1 to <maxROHC-Profiles>		Profiles supported by both compressor and decompressor in both UE and UTRAN. Profile 0 shall always be supported.	REL-4
>>>>Profile instance	MP		Integer(1 .. 3)	1 = 0x0001, 2 = 0x0002, 3 = 0x0003 (see [52])	REL-4
>>>Uplink	OP			Indicates the necessary information elements for Uplink.	REL-4
>>>>CID inclusion info	MP		Enumerated (PDCP header, RFC3095 packet format)	Configures which method shall be used to carry RFC3095 CID values.	REL-4
>>>>Max_CID	MD		Integer (1.. 16383)	Highest context ID number to be used by the UE compressor. Default value is 15.	REL-4
~~>>>>Profiles~~	~~MP~~	~~1 to <maxROHC-Profiles>~~		~~Profiles supported by the UTRAN decompressor.~~	~~REL-4~~
~~>>>>>Profile instance~~	~~MP~~		~~Integer(1 .. 3)~~	~~Supported profile types. At least four spare values.~~	~~REL-4~~
>>>>Packet_Sizes_Allowed	OP	1 to <maxROHC-PacketSizes>		List of packet sizes that are allowed to be produced by the UE compressor.	REL-4
>>>>>Packet size	MP		Integer (2 .. 1500)	Packet size as defined in RFC 3095.	REL-4

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
>>>Downlink	OP			Indicates the necessary information elements for Downlink.	REL-4
>>>>CID inclusion info	MP		Enumerated (PDCP header, RFC3095 packet format)	Configures which method shall be used to carry RFC3095 CID values.	REL-4
>>>>Max_CID	MD		Integer (1.. 16383)	Highest context ID number to be used by the UE decompressor. Default value is 15.	REL-4
>>>>Reverse_Decompression_ Depth	MD		Integer (0..65535)	Determines whether reverse decompression should be used or not and the maximum number of packets that can be reverse decompressed by the UE decompressor. Default value is 0 (reverse decompression shall not be used).	REL-4

Condition	Explanation
LosslessCriteria	This IE is mandatory present if the IE "RLC mode" is "Acknowledged", the IE "In-sequence delivery " is "True" and the IE "SDU Discard Mode" is "No discard" and not needed otherwise.
Lossless	This IE is mandatory present if the IE "Support for lossless SRNS relocation" Is TRUE, otherwise it is not needed.

11.3 Information element definitions

```
-- **************************************************
--
--    RADIO BEARER INFORMATION ELEMENTS (10.3.4)
--
-- **************************************************

……


DL-RFC3095-r4 ::=                   SEQUENCE {
    cid-InclusionInfo                   CID-InclusionInfo-r4,
    max-CID                             INTEGER (1..16383)                  DEFAULT 15,
    reverseDecompressionDepth           INTEGER (0..65535)                  DEFAULT 0
}

.......

RFC3095-Info-r4 ::=             SEQUENCE {
    rohcProfileList                     ROHC-ProfileList-r4,
    ul-RFC3095                          UL-RFC3095-r4                       OPTIONAL,
    dl-RFC3095                          DL-RFC3095-r4                       OPTIONAL
}

.......

UL-RFC3095-r4 ::=                   SEQUENCE {
    cid-InclusionInfo                   CID-InclusionInfo-r4,
    max-CID                             INTEGER (1..16383)                  DEFAULT 15,
    rohcProfileList                     ROHC-ProfileList-r4,
    rohcPacketSizeList                  ROHC-PacketSizeList-r4
}
```

3GPP TSG-RAN WG2 #36
Paris, France, 19th – 23rd May 2003

Tdoc ⌘R2-031461

CR-Form-v7

CHANGE REQUEST

⌘ **25.331** **CR** **1984** ⌘**rev** **-** ⌘ Current version: **4.9.0** ⌘

*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 [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Optimisation of the INTER RAT HANDOVER INFO message
Source:	⌘	RAN WG2
Work item code:	⌘	TEI4
Date:	⌘	22/05/2003
Category:	⌘	**C**
Release:	⌘	REL-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

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

Reason for change:	⌘	In current Rel'5 when all of the pre-defined configurations stored by the UE are sent by the UE to the RAN during GSM call setup, the additional call setup delay may be in the region of 900 ms. In order to fully utilise the function of the pre-defined configurations, i.e. by providing NO limitation on the possibilities for the immediate radio bearer selection by the UTRAN, whilst at the same time minimising GSM call setup delay as much as possible, it is necessary to provide an optimisation of the INTER RAT HANDOVER INFO message. This particular change means a reduction in call setup delay in such cases by 500ms.
Summary of change:	⌘	This CR removes not essential REL-4 UE capability extensions from the INTER RAT HANDOVER INFO In REL-5 a re-coding of the R99 pre-defined configuration information and the UE radio access capabilities is included, including removal not essential REL-5 UE capability extensions from the INTER RAT HANDOVER INFO The CR also includes the correction of an error in IE UE-RadioAccessCapability-v4xyext, where an optional is missing for the access stratum release indicator (correct in REL-5)
Consequences if not approved:	⌘	The call setup reduction will be smaller The ASN.1 error will not be corrected and will be inconsistent with REL-5

Clauses affected:	⌘	11.2, 11.3

[Y] [N]

Other specs affected:	⌘		X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

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

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

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

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

11.2 PDU definitions

NOTE for CR implementation: AccessStratumReleaseIndicator to be added to imports list

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

InterRATHandoverInfo ::= SEQUENCE {
    -- This structure is defined for historical reasons, backward compatibility with 04.18
    predefinedConfigStatusList      CHOICE {
        absent                          NULL,
        present                         PredefinedConfigStatusList
    },
    uE-SecurityInformation          CHOICE {
        absent                          NULL,
        present                         UE-SecurityInformation
    },
    ue-CapabilityContainer          CHOICE {
        absent                          NULL,
        -- present is an octet aligned string containing IE UE-RadioAccessCapabilityInfo
        present                         OCTET STRING (SIZE (0..63))
    },
    -- Non critical extensions
    v390NonCriticalExtensions       CHOICE {
        absent                          NULL,
        present                         SEQUENCE {
            interRATHandoverInfo-v390ext    InterRATHandoverInfo-v390ext-IEs,
            v3a0NonCriticalExtensions       SEQUENCE {
                interRATHandoverInfo-v3a0ext    InterRATHandoverInfo-v3a0ext,
                laterNonCriticalExtensions      SEQUENCE {
                    interRATHandoverInfo-v3d0ext    InterRATHandoverInfo-v3d0ext-IEs,
                    -- Container for additional R99 extensions
                    interRATHandoverInfo-r3-add-ext     BIT STRING  OPTIONAL,
                    v4xyNonCriticalExtensions       SEQUENCE {
                        interRATHandoverInfo-v4xyext    InterRATHandoverInfo-v4xyext-IEs,
                        -- Reserved for future non critical extension
                        nonCriticalExtensions           SEQUENCE {} OPTIONAL
                    }   OPTIONAL
                }   OPTIONAL
            }   OPTIONAL
        }
    }
}

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

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


InterRATHandoverInfo-v3d0ext-IEs ::= SEQUENCE {
    -- User equipment IEs
        uESpecificBehaviourInformation1interRAT     UESpecificBehaviourInformation1interRAT
    OPTIONAL
}

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

11.3 Information element definitions

```
-- ************************************************
--
--     USER EQUIPMENT INFORMATION ELEMENTS (10.3.3)
--
-- ************************************************

AccessStratumReleaseIndicator::=    ENUMERATED {
                                        rel-4, spare15, spare14, spare13,
                                        spare12, spare11, spare10, spare9, spare8,
                                        spare7, spare6, spare5, spare4, spare3,
                                        spare2, spare1 }

-- Cut until the next modified section

UE-RadioAccessCapability-v4xyext ::=    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
}
```