TSG RAN Meeting #26 **RP-040432**
Vouliagmeni Athens, Greece, 08 - 10 December 2004

Title **CRs (Rel-5 and Rel-6 Category A) to TS 25.412 on Ip transport**
Source **TSG RAN WG3**
Agenda Item **7.4.5**

RAN3 Tdoc	Spec	curr. Vers.	new Vers.	CR	Rev	Cat	Rel	Title	Work item
R3-041606	25.412	5.1.0	5.2.0	16	1	F	Rel-5	IP transport option correction	ETRAN-iptrans
R3-041607	25.412	6.0.0	6.1.0	17	1	A	Rel-6	IP transport option correction	ETRAN-iptrans

3GPP TSG-RAN WG3 Meeting #45 **Tdoc ⌘R3-041606**
Shin Yokohama, Japan, 15th- 19th November 2004

CR-Form-v7.1

CHANGE REQUEST

⌘ **25.412** **CR** **016** ⌘ **rev** **1** ⌘ Current version: **5.1.0** ⌘

*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 [X] Core Network [X]

Title:	⌘	IP Transport option correction
Source:	⌘	RAN3
Work item code:	⌘	ETRAN-iptrans
Date:	⌘	03/11/2004
Category:	⌘	**F**
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:
Ph2 *(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)*
Rel-7 *(Release 7)*

Reason for change:	⌘	Reference to CN is missing for support of PPP protocol with HDLC framing, PPP extensions, IP Header compression and DiffServ code point marking in IP Transport Option over Iu in order to be aligned with how IP Transport Option is described in 25.414. It is has been assumed that the requirements should be symetrical, e.g. usage of Diffserv code point marking is either used by both sides or by none of them.
Summary of change:	⌘	"RNC" is replaced by the term "RNC/CN" to include needed functionality for full IP Transport Option support in both directions. Impact Analysis: Impact assessment towards the previous version of the specification (same release): This CR has isolated impact with the previous version of the specification (same release) because it affects only the following functions: Diffserv code point marking, IP Header Compression function, PPP functions. This CR has an impact under functional and protocol point of view. The impact can be considered isolated because the change affects only some system functions namely the Diffserv code point marking, IPHC and PPP functions on the CN side. It is noted that this can be seen as new requirements for MSC Server implementations that only terminates the Iu-CS Control plane.
Consequences if not approved:	⌘	IP Transport Options may not be fully implemented on Iu

Clauses affected:	⌘	4.2, 5.2.3, 5.3.4			
		Y	**N**		
Other specs affected:	⌘	**X**		Other core specifications	⌘ 25.412 CR017 Rel-6
			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.

4.2 IP Transport Option

An RNC/CN using IP transport option shall support the PPP protocol with HDLC framing [19], [20].

Note: This does not preclude the single implementation and use of any other data link layer protocol (e.g. PPPMux [29]/AAL5/ATM, PPP/AAL2/ATM, Ethernet, MPLS [28]/ATM, etc.) fulfilling the UTRAN requirements toward the upper Layers.

An RNC/CN using IP transport option having interfaces connected via slow bandwidth PPP links like E1/T1/J1 shall also support IP Header Compression [21] and the PPP extensions ML/MC-PPP [22], [23]. In this case, the negotiation of header compression [21] over PPP shall be performed via [24].

5.2.3 IP Transport Option

1. **SCCP**, see subclause 5.2.2.

2. **M3UA** refers to the SCCP adaptation layer "SS7 MTP3 – User Adaptation Layer " [17] also developed by the Sigtran working group of the IETF.

3. **SCTP** refers to the Stream Control Transmission Protocol [16] developed by the Sigtran working group of the IETF for the purpose of transporting various signalling protocols over IP networks. The checksum method specified in RFC 3309 [30] shall be used instead of the method specified in RFC 2960 [16].

4. **IP**. IPv6 shall be supported according to [25]. IPv4 support [13] is optional.

   Note: This does not preclude the single implementation and use of Ipv4.

   Due to the possible transition from IPv4 to IPv6 the IP dual stack support is recommended.

An RNC/CN using IP transport option shall support Diffserv code point marking [26]. The Diffserv code point may be determined from the application parameters.

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3GPP TSG-RAN WG3 Meeting #45 **Tdoc ⌘R3-041607**
Shin Yokohama, Japan, 15th- 19th November 2004

CR-Form-v7.1

CHANGE REQUEST

⌘ **25.412** **CR** **017** ⌘ **rev** **1** ⌘ Current version: **6.0.0** ⌘

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Source:	⌘	RAN3
Work item code:	⌘	ETRAN-iptrans
Date:	⌘	03/11/2004
Category:	⌘	**A**
Release:	⌘	Rel-6

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Other comments:	⌘					

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