3GPP TSG CN Plenary **Tdoc NP-000680**
Meeting #10, Bangkok, Thailand
6th – 8th December 2000

Source: Ericsson L.M.

Title: Work Item Description for Release 4: "#7 Signalling over IP in Core Network"

Agenda item: 8.19 Any other R00 Work Item

Document for: APPROVAL

Work Item Description

Title: #7 Signalling over IP in Core Network

1 3GPP Work Area

	Radio Access
X	Core Network
	Services

2 Linked work items

Network Domain Security and Key Management.

3 Justification

IP plays a significant role in UMTS according to the actual trend towards IP capable backbone networks.
CN is working on specifications to introduce IP based transmission in a Bearer Independent Core Network, therefore the option to transfer #7 signalling (e.g. MAP, CAP, BSSAP+) over IP should be considered.
Within IETF there is currently a group, SIGTRAN, working out Internet Drafts for that.
The architecture defined by SIGTRAN (RFC 2719) consist of a modular extensible structure with a common reliable transport protocol SCTP (RFC 2960). SCTP (Stream Control Transmission Protocol) is an application level datagram transfer protocol operating on top of IP. In order to access SCTP an adaptation module, M3UA, has been defined between the SCN (Switched Circuit Network) signalling system being carried and SCTP. The adaptation module allows keeping the signalling protocol unchanged.

4 Objective

The objective of this WI is:

To introduce in the concerned Core Network Technical Specifications for Release 4 the option to allow the transfer of #7 signalling (e.g. MAP, CAP, BSSAP+) over IP according to the architecture defined by SIGTRAN (RFC 2719) with the SCTP layer (RFC 2960) and the M3UA adaptation layer[1].

[1] M3UA has no RFC number yet but it is considered technically stable, see Internet Draft:
SS7 MTP3-User Adaptation Layer (M3UA), http://www.ietf.org/internet-drafts/ draft-ietf-sigtran-m3ua-03.txt

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

None

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes				X	
No	X	X	X		X
Don't know					

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
-	-	-	-	-	-	-

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
29.002		Mobile Application Part (MAP) specification	CN#11	
29.078		CAMEL Application Part (CAP) specification	CN#11	
29.018		Gs interface layer 3 specification (BSSAP+)	CN#11	
29.016		Gs interface Layer 2 specification	CN#11	
-	-	To be determined	CN#11	Other Core Network specifications may be impacted as a result of this Work Item

11 Work item raporteurs

Ericsson L.M.

12 Work item leadership

CN4, CN2, CN1.

13 Supporting Companies

Ericsson

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	Work Task (go to 14c)

14a The WI is a Feature: List of building blocks under this feature

14b The WI is a Building Block: parent Feature

14c The WI is a Work Task: parent Building Block:
Evolution of bearers in the CN.