3GPP TSG_CN **Tdoc NP-000535**
Plenary Meeting #9, Oahu, Hawaii
20th – 22nd September 2000.

Source: TSG_CN

Title: SIP Call Control protocol over Gm reference point (CSCF – UE)

Agenda item: 7.2

Document for: APPROVAL

Work Item Description

Title: SIP Call Control protocol over Gm reference point (CSCF – UE)

1 3GPP Work Area

	Radio Access
X	Core Network
X	Services

2 Linked work items

Related work items are:
1. Architecture for Call control and roaming to support IP-based multimedia services in UMTS. S2
2. Real Time QoS for packet services including VoIP. S2, N1, RAN3 etc.
3. Emergency call enhancements - IP&PS based Emergency call enhancements. N1 etc
4. Roaming support within and between IP Multi-media network and CS Domain networks.S2, N4 etc
5. Lawful interception architecture. S3 etc

3 Justification

The work item "An architecture for Call control and roaming to support IP-based multimedia services in UMTS" describes the ongoing work in 3GPP for R00, which has been initially tasked by SA to S2 under the "all-IP option" by SA#4 (6/99). Impacts on SIP to transport QoS parameters on an intra-PLMN, as well as end-to-end.

The work item describes the ongoing work in 3GPP CN1 for R00.

4 Objective

The objective of this work item is to- specify the Call Control protocol for the IM Subsystem for control of ~~IP based~~ multimedia services based on the current Session Initiated Protocol, IETF RFC2543 (SIP) with required enhancements for 3GPP requirements to facilitate a multi-vendor, multi-system environment.~~.~~

Stage 2 call flow descriptions and stage 3 protocol descriptions will be developed for signalling between the Mobile Station (UE) and the Core Network (S-CSCF) based upon the SIP Call Control Protocol-. 3GPP SIP extensions should only be provided when deemed absolutely necessary.
As per normal working procedure any changes which affect the high level architecture will be co-ordinated with S2.

Editors note: The area of this work task may be expanded to cover the Mw and Mg reference points, but this is dependent on agreement with the relevant TSG~~'~~s.

5 Service Aspects

New services which are to be provided by this network subsystem are currently defined by a separate work item in S1. The architectural aspects are being defined in S2.

6 MMI-Aspects

yes, as new, IP-based based call control protocol will be used in the terminal

7 Charging Aspects

yes, but no impact on CN1

8 Security Aspects

yes, security mechanisms for IP-based multimedia shall~~must~~ be addressed by S3 with CN1 providing the specific protocol work as necessary.

9 Impacts

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

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

Meeting	Date	Activity
CN1#11	May 22-26, 2000	Raporteur appointed for CN1 group.
S2 & CN1	August 15-16, 2000	Joint meeting to plan work item schedule.
CN1#13	August 14-18, 2000	
CN#9	September 20-22, 2000	
N1 SIP Ad-hoc #1	17-19 October 2000	
CN1#14	November 20-24, 2000	
CN#10	December 6-8, 2000	

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
23.1xx	<stage 2 for the IP Multimedia Call Control based on SIP (Detailed flows to expand on the Architectural stage 2 >	N1		CN#12~~10~~	CN#14~~11~~	Stage 2 specifying~~describing~~ the information flows between the UE and S-CSCF on the Gm reference point in relation to UMTS specific traffic cases e.g. interaction between lower layer access signalling (GPRS Session Management – SM, GPRS Mobility Management - GMM etc.) and SIP call control protocol. Impact to user plane radio resource allocation procedures, handover/SRNS relocation procedures etc. S2's stage 2 will cover the architecture and CN1will cover the detailed information flows.
24.1xx	<stage 3 for the IP Multimedia Call Control based on SIP>	N1		CN#13~~10~~	CN#14~~11~~	Stage 3 specifying~~describing~~ the UMTS ~~specific~~ protocol impacts on the Gm reference point e.g. ~~any~~ detailed message definition and any enhancements required to SIP
Ed comment: there will be potentially other new specs, including Stage 3s, yet to be identified						

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary #	Comments
Ed comment: further impacts to R99 specifications to be identified				

11 Work item raporteurs

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12 Work item leadership

N1

13 Supporting Companies

Lucent, T-Mobil, BT, Ericsson, Vodafone, Motorola, CSELT, Nortel Networks, Nokia.

14 Classification of the WI (if known)

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

14b The WI is a Work Task (14c).