`3GPP TSG-CN1 – SA2 joint meeting CN-WG1, Meeting #14
20 - 24 November28.-29. November, 2000
Cardiff, Wales

Tdoc N1-001454
Tdoc N1-001349
Tdoc N1-001193

Agenda Item: 8.2

WI / Topic: SIP call control protocol for the IM subsystem

Source: TSG CN WG1

Title: Proposed revisions to SIP call control protocol for the IM subsystem

Effected Specifications / Releases: Rel-5

Document for: Approval

Agenda Item: 8.2

WI / Topic: SIP call control protocol for the IM subsystem

Source: Lucent Technologies

Title: Proposed revisions to SIP call control protocol for the IM subsystem

Effected Specifications / Releases:

Document for: Decision

Date: 8th November 2000

Work Item Description

Title: SIP Call Control protocol for the IM Subsystem

1   3GPP Work Area

	Radio Access
X	Core Network
X	Services

2   Linked work items

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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 Rel. 5~~00~~, 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~~Rel. 5.

4   Objective

The objective of this work item is to specify the Call Control protocol for the IM Subsystem for control of multimedia services based on the current Session Initiated Protocol, IETF RFC2543 (SIP) and the Session Description Protocol, IETF RFC 2327 (SDP) 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 over the Gm, Mw, Mm and Mg reference points based upon the SIP Call Control Protocol and SDP. 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: SDP is to be included under this work item.~~

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 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				

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

Meeting	Date	Activity
CN1#11	May 22-26, 2000	Rapporteur appointed for CN1 group.
SA2 & 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	Editor appointed for 24.228, 24.229, 23.cde
CN1 & SA2	November 28-29, 2000	
CN#10	December 6-8, 2000	
CN1#15	January 15-19, 2001	
CN1 & SA2	February 13-15, 2001	
CN1 #16	February 27 March 1, 2001	
CN #11	March 14-16, 2001	
CN1 & SA2 SIP ad hoc	April 3-4, 2001	
CN1 #17	May 14-18, 2001	
CN #12	July 13-15, 2001	24.228 presented for information to TSG
CN1 #18	August 27-31, 2001	
CN #13	September 19-21, 2001	24.229 and 23.cde presented for information to TSG
CN1 #19	October 22-26, 2001	
CN1 #20	November 20-23, 2001	
CN#14	December 12-14, 2001	Freezing of 24.228, 24.229 and 23.cde

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New specifications					
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
~~23~~24.22 81xx	Signalling flows for the IP multimedia call control based on SIP and SDP~~<stage 2 for the IP Multimedia Call Control based on SIP (Detailed flows to expand on the Architectural stage 2 >~~	N1	S2	CN#12	CN#14	Stage 2 specifying the information flows on the Gm, Mw, Mg and Mm reference points 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.
24.2~~29~~1 ~~xx~~	IP Multimedia Call Control Protocol based on SIP and SDP~~<stage 3 for the IP Multimedia Call Control based on SIP>~~	N1		CN#13	CN#14	Stage 3 specifying the UMTS protocol impacts on the Gm, Mw, Mg and Mm reference points e.g. detailed message definition and any enhancements required to SIP
23.cde	IP Multimedia (IM) Session Handling; IP multimedia (IM) call model	N1		CN#13	CN#14	This specifies the IP Multimedia (IM) Call Model for handling of an IP multimedia session origination and termination for an IP Multimedia subscriber. This specification includes interactions between the Service Platform and IP multimedia sessions.
Ed comment: there will be potentially other new specs, including Stage 3s, yet to be identified						
Affected existing specifications						

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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).