Technical Specification Group Services and System Aspects **TSGS#17(02)0434**
Meeting #17, Biarritz, France, 9 - 12 September 2002

TSG-SA4#22 meeting   *Tdoc S4 (02)0441*
Tampere, 22 - 26 July 2002

Technical Specification Group Services and System Aspects   *TSGS#09(00)0398*
Meeting #9, Kapolei, Hawaii, USA, 25-28 September 2000   Agenda Item: 7.4.3

~~3GPP TSG-S4#12~~   *~~Tdoc S4(00)440~~*
~~September 4-8, 2000, Bethesda, USA~~

Title: <u>Revised</u> **WI: Multimedia codecs and protocols for conversational packet-switched services (Rev ~~2~~<u>3</u>)**

Source: **TSG-SA WG4**

Agenda item: **7.4.3**

<u>Work Item Description</u>

Title

Multimedia codecs and protocols for conversational packet-switched services

1   3GPP Work Area

	Radio Access
	Core Network
X	Services

2   Linked work items

SA4 ~~WI2~~   Codec for low bit-rate circuit-switched multimedia

SA4 ~~WI7~~   <u>Extended </u>Transparent packet switched mobile streaming application

SA1 WI ID 54   Provisioning of IP based multimedia based services

CN1 WI ID 64   Multimedia capabilities

CN3 WI ID 77   Interworking with other multimedia protocols

SA2 WI ID 364 Ensure reliable QoS for IP and IM subsystems

3   Justification

Conversational services will form an important component of the packet-switched multimedia services offered by 3G systems (e.g. UTRAN, GERAN). The definition of default codecs for conversational packet-switched services will realise a number of benefits, including:

• guaranteed interoperability across terminals and networks;

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- consistent quality of service can be more easily provided;

- optimum coding will help to minimise the use of the radio resource;

- codecs can be implemented efficiently, improving battery life, reducing manufacturing cost, and exploiting overlap with other services.

It should be noted that the standardisation of default codecs will not stop the use of other codecs through the network if the end user or end application require it.

In addition to the availability of default codecs, the principle of interoperability also demands recommendations regarding bearer control, transport protocols and session protocols. This work item will supplement the work underway in other 3GPP working groups as necessary, to ensure that default conversational mutlimedia services can be provided in the packet-switched domain.

4 Objective

Standardisation of default codecs for conversational packet-switched multimedia services for Release ~~2000 (likely to become Release 4)~~5.

Identification of those additional components required for conversational packet-switched multimedia services that are the responsibility of S4, e.g. elements of protocols for transport, session and bearer control. Standardisation of these components as required.

Harmonisation with existing and emerging 3GPP multimedia applications will be considered whenever possible.

5 Service Aspects

The WI will define the necessary default components for a mobile PS conversational multimedia service, for example voice, audio-visual and text conversation.

6 Man Machine Interface Aspects

None.

7 Charging Aspects

Outside the scope of S4; however, PS conversational multimedia applications will allow various charging models.

8 Security Aspects

Transport security aspects will be covered. Possibility for harmonisation of security mechanisms between different multimedia applications will be considered.

9 Impacts

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

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

New specifications						
Spec No.	Title	Primary responsibility WG	Secondary responsibility WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
26.~~XXX~~235	Default codecs for PS conversational multimedia applications	S4	S2, T2		SA#~~10~~12	
26.XXX	~~Performance characterization of default codecs for PS conversational multimedia applications~~	S4			~~SA#14~~	~~Technical report~~
26.~~XX~~236	Protocols for PS conversational multimedia applications	S4	S2, T2		SA#~~14~~15	~~Dependent on progress by other groups.~~
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	

11   Work item rapporteurs

Barry Aronson (Toshiba) and Pasi Ojala (Nokia)

12   Work item leadership

3GPP SA WG4 (CODEC)

13   Supporting Companies

BT, Ericsson, Matsushita, Mitsubishi, Motorola, NEC, Nokia, Nortel Networks, NTT DoCoMo, Philips, Toshiba, Siemens, STMicroelectronics

14   Classification of the WI (if known)

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

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

(List of Work Items identified as building blocks)

14b   The WI is a Building Block: parent Feature

<u>Provisioning of IP-based multimedia services</u>(~~One Work Item identified as a feature~~)

14c   The WI is a Work Task: parent Building Block (?, advice is requested)

(One Work Item to be identified as a building block)