

3GPP TSG-S4#12  
September 4-8, 2000, Bethesda, USA

*Tdoc S4(00)440*

**Title:** Proposed **WI: Multimedia codecs and protocols for conversational packet-switched services (Rev 2)**

**Source:** **TSG-SA WG4**

**Agenda item:** **7.4.3**

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### Work Item Description

#### **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 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;
- 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 multimedia 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).

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

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	Default codecs for PS conversational multimedia applications	S4	S2, T2		SA#10	
26.XXX	Performance characterization of default codecs for PS conversational multimedia applications	S4			SA#14	Technical report
26.XX	Protocols for PS conversational multimedia applications	S4	S2, T2		SA#14	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)**

	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

(List of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

(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)