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From:	**3GPP TSG-SA**
To:	**IETF AVT Working Group**
Title:	**3GPP requirements for real-time packet-switched multimedia services**

Packet-based voice and multimedia communications are gaining interest within 3rd generation mobile communication arena. Applications considered within 3GPP include conversational voice and video and streaming audio and video services [1]. For running aforementioned real time or near-real time packet-based applications over 3G mobile networks, optimised user plane error-resiliency would be a critical requirement. Good quality of service would be obtained if such applications could use some error-resilient protocols and tools. On the other hand, available packet domain tools have to enable economically feasible transport over the expensive radio transport path to provide a competitive alternative for currently specified and used circuit switched services.

3GPP TSG-SA Working Groups (e.g. TSG-SA4 Working Group, also known as Codec WG) are going to evaluate wireless real time packet switched multimedia services based on H.323 or SIP probably within the standardisation period agreed for 3GPP Release 2000 (Approval in December 2000). For this work 3GPP Working Groups would like to consider and possibly use in their future specifications relevant error resilient real time protocols and tools, which are currently under discussion in IETF Audio/Video Transport (AVT) Working Group. Therefore TSG-SA encourages IETF AVT Working Group to also consider the characteristics and available QoS [1] of 3G mobile networks for this work in progress. Such items to consider are, e.g.,

- long transfer delays (from 20ms to 300ms depending on the required bit error rate) due to radio channel coding and interleaving on lower layers in radio access network,
- low radio interface user rates (from 10s of kbit/s to some 100s of kbits/s depending on radio cell size and # of concurrent users) compared to fixed networks,
- high bit error ratios (BER from 10-3 to 10-7) in Layer 1 transport available for real time bearers and
- need for optimised radio spectrum efficiency (e.g. minimised overhead caused by headers).

As this is the first contact of 3GPP TSG-SA towards IETF AVT Working Group, TSG-SA would kindly like to ask IETF AVT Working Group for further information on current status and direction of the work on error resilient real time protocols. The next TSG-SA meeting is scheduled for 21-23 June, 2000, and your response prior to that time would be appreciated.

[1]   3GPP - TS 22.105 , V3.7.0, "Services and Service Capabilities", December 1999