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Title: Liaison statement on UMTS Simultaneous Mode

Date: 21st January 1999

To: SMG1,
SMG2, SMG 2 UMTS L2/3 Group, SMG2 UMTS Architecture Expert Group,
SMG3, SMG3 WpC,

Cc: 3GPP TSG RAN, 3GPP TSG Wg2 (CN), SMG4

Source: (SMG12)

Related to:

SMG12 has been developing the UMTS system. As part of this definitions of operation have been considered.

Within GSM/GPRS Class A mobiles have been defined which support ‘simultaneous operation of both GPRS and other GSM services’. UMTS is intended to enable users to access a variety of communications features including access to PSTN/ISDN services/features as well as IP capability. The UTRAN developments have a mechanism to support common ‘pipe’ over the radio interface (the RRC Connection). It is expected that multi-media and mixed media (PSTN/ISDN/IP communications) will play a large part of UMTS communications.

From this perspective it is essential for UMTS that from day 1 of network launch that mobile terminals can support both PSTN/ISDN services and features as well as IP simultaneously. Based upon this aspect ‘Simultaneous mode’ has been defined for UMTS communications. This definition can be applied to both network and mobile terminals.

Simultaneous mode is defined as the support of active parallel CS and PS communications.

The UE has simultaneous PS MM Connected and CS MM Connected states when in UE simultaneous mode.

Note: The support of ‘Simultaneous mode’ should not prevent the operation of mobile terminals in solely CS MM or PS MM connected mode. Simultaneous mode capable terminals should be supported in CS service only and PS service only capable networks. Operators may wish to just use 3G_MSC and/or 3G_GSNs if required.

The impact of supporting ‘Simultaneous mode’ operation of the UE needs to be addressed within the UMTS System as a whole. In particular, the impacts upon the UE, radio, UTRAN and Core Network nodes need to be assessed.

SMG 12 requests comments for alignment with the current GSM/GPRS/UMTS R99 standards and looks forward to jointly developing UMTS (including Simultaneous mode) with the experts in the UMTS Community, in particular:

- SMG1: Support of simultaneous mode within the current services and requirements work. Support of Simultaneous mode between UMTS and GSM/GPRS.
- SMG2 (and working groups): Provision of Simultaneous mode within the UTRAN
- Possibilities to realise terminals and provision of standards for supporting both Simultaneous mode for UMTS and simultaneous CS and PS services for GSM/GPRS within the R99 standards timeframe should be studied. For example, terminals providing simultaneous CS and PS services may be possible based on GSM/GRPS Class B operation (with the addition of synchronisation within the BSS) and may be practicable within GSM release 99 timescales. Availability of such terminals is seen as crucial by operators who wish to provide service continuity between UMTS and GSM coverage.
- SMG3, (and working groups): Support of Simultaneous Mode within the GSM/GPRS Core Network.