

Doc For	TSG SA	TSG CN	TSG RAN	TSG T
Decision				
Discussion	X	X		X
Information			X	

Source: Chairman ETSI/SMG4

Title: **Proposals for Treatment of *Data Service Technical Work* in UMTS**

Agenda:

Purpose: **Discussion**

Traditionally, the technical work for mobile data services in ETSI has been addressed in ETSI/SMG4 where experts in data services gather to discuss the end to end requirements, the functionality required in the terminals and the interworking between the mobile network and other networks.

In the 3GPP structure, these items are dealt with in separate TSGs and therefore the handover of work between ETSI/SMG4 and the 3GPP is not completely straightforward.

The following areas of ETSI/SMG4 work have been identified and consideration needs to be given to the handling of these items in the light of the new 3GPP TSGs:

1. Overall end to end data service review for UMTS

Requirements for data services should be considered within the work plan of the Systems TSG. In the experience of SMG4, having a dedicated group to look at data services from end to end helps to identify potential problems with data services which are generally only found with detailed study by those closely involved with data services. As the point of access for data services is the responsibility of the Terminals TSG it is recommended that this group act as reviewers of the overall integrity of data services within the scope of 3GPP.

2. Fax over IP

This is a preliminary study which will identify an appropriate mechanism for fax services over IP in GSM and UMTS. This should remain in ETSI SMG4 as it should be completed quite quickly. Once it has been completed, the 3GPP Systems group will need to study to what extent this needs some additional work in 3GPP. Some work on interworking may be required in the 3GPP CN TSG.

3. Control of terminals by external devices

This work is largely complete, but will need some analysis by the 3GPP to determine the extent to which it is adopted for UMTS in 3GPP. The UMTS aspects should be considered within the work plan of the Terminals TSG. In particular the following specifications should be considered:

- TS 07.05 Use of DCE-DTE Interface for SMS and CBS
- TS 07.07 AT Command Set
- TS 07.08 GSM Application Programming Interface (for ISDN)
- TS 07.10 TE-MS Multiplexer Protocol

4. Mobile Station Application Execution Environment

GSM Release 98 is nearing completion. MExE release 99 is very much oriented to UMTS type

services. It is therefore proposed that MExE be considered within the work plan of the Terminals group of 3GPP. ETSI/SMG4 would need to establish and maintain a strong relationship with 3GPP Terminals for the maintenance of MExE release 98. The Technical part of the MExE specification is contained in:

TS 03.57 MEXE Functional Description

5. Packet Switched Services (GPRS Phase 2)

GPRS will likely form the basis of many UMTS services and it is therefore seen as inevitable that GPRS work beyond release 98 should be considered within the work plan of 3GPP. Work for release 98 is almost complete and should be finished in SMG 4. SMG4 work on GPRS (in common with many other areas) is related to both the CN and terminals and will need to be split between these respective TSGs. The maintenance of the relevant SMG4 GPRS specs for GSM would logically remain with SMG4. However, due to the inheritance of the "GSM core network" by 3GPP it will be necessary for co-located joint meetings between SMG4 and 3GPP to assure continued compatibility, as it is unlikely the key experts would be able to attend both SMG4 and the relevant TSGs and have time to do quality work! Specifications which should be studied are:

TS 07.60 MS Support of GPRS

TS 09.61 Interworking between the PLMN and IP-based networks

6. Interworking for Circuit Switched Data Services

For UMTS this work should be considered within the work plan of the Core Network TSG. The following specifications have been elaborated by SMG4 and should be considered:

TS 03.10 GSM PLMN Interconnection Types

TS 03.54 Shared Interworking Function

TS 03.70 Routing of calls to/from Public Data Networks

TS 08.20 Rate Adaptation on the BSS-MSC Interface

TS 09.04 Interworking between the PLMN and CSPDN

TS 09.05 Interworking between the PLMN and PSPDN (Pad Access)

TS 09.06 Interworking between the PLMN and ISDN/PSPDN (Packet Access)

TS 09.07 Interworking between the PLMN and ISDN/PSTN

7. Terminal Adaptation for Circuit Switched Data Services

For UMTS this work should be considered within the work plan of the Terminals TSG. The following specifications have been elaborated by SMG4 and should be considered:

TS 04.21 Rate Adaptation on the MS-BSS Interface

TS 04.22 Radio Link Protocol

TS 07.01 General Terminal Adaptation Functions

TS 07.02 Asynchronous Terminal Adaptation Functions

TS 07.03 Synchronous Terminal Adaptation Functions

8. Multimedia

A joint group spanning service experts, architecture experts and data service experts has had two meetings and made some significant progress in defining the areas where standardisation for Multimedia is needed, both for Real Time Multimedia and Multimedia Store and Forward. A skeleton for a report has been prepared in addition to two brief documents concluding on the most appropriate approach for UMTS Multimedia. It would not be possible to have achieved this without the participation of the experts from the different fields. This "cross discipline" working is seen as an essential tool for progress of the work in UMTS. It is therefore suggested that a number of working level groups crossing TSG Systems and TSG Terminals (at least) are established with one on "Multimedia" being the first candidate. The following items should be studied by this group:

SMGMM98053 Summary of Conclusions on Multimedia
SMGMM98054 Summary of Conclusions on Multimedia Store and Forward
SMGMM98049 Real Time Multimedia in UMTS (Draft Report)

9. Applications

Concern has been raised within the ETSI community on the need for some standardised applications for UMTS to enable the market to hit the ground running. It was agreed that some applications should be standardised but not the exact detail of which applications. It is suggested that TSG Terminals consider this work and any developments required are then fed back into TSG Systems. Documents for consideration here include:

TS 03.43 Support of Videotex
TS 03.44 Support of Teletex
TS 03.45 Technical Realisation of Fax Group 3 – transparent
TS 03.46 Technical Realisation of Fax Group 3 – non transparent
SMG 98-0793 Standardising Applications in UMTS (Approved by SMG)
Discussion on the SMG_APPLICATIONS email list

10. SMS and CBS (Cell Broadcast)

3GPP Terminals needs to consider the implementation of Short Message Service and Cell Broadcast on UMTS terminals based on the GSM Core Network implementation. Consideration should be given to the following specifications:

TS 03.40 Technical Realisation of SMS Point to Point
TS 03.41 Technical Realisation of Cell Broadcast
TS 03.38 Alphabets and Language Specific Information for GSM
TS 03.42 SMS Compression
TS 03.47 Example Protocols for SC/MSC interconnection
TS 03.49 Example Protocols for CBC/BSC interconnection
TS 03.39 Interface Protocols for the Connection of SMSCs to SMEs

In order to provide for a smooth working relationship between 3GPP and SMG it is proposed to realign some of the SMG work. In particular work related to the Core Network TSG is proposed to be moved from SMG4 to SMG3. This work concerns interworking between the Core Network and other networks for data services.

Decisions Needed

TSG-System Aspects, TSG-Core Network and TSG-Terminals are invited to consider the above aspects and take decisions on the following:

1. To confirm the above proposals.
2. To set up appropriate Working Groups related to the above aspects, with a close relationship to SMG3 (for core network related items) and SMG4 (for other items), since SMG will retain responsibility for GSM.
3. The responsibility for work of equal interest to both GSM and UMTS (especially MeXe and Packet Switched Services), possibly allocating joint responsibility.
4. To agree an approval process for the work in progress of SMG4 as outlined above and possibly also to endorse the work already approved by SMG plenary.
5. A timescale and plan for creating the above, including chairmanships.

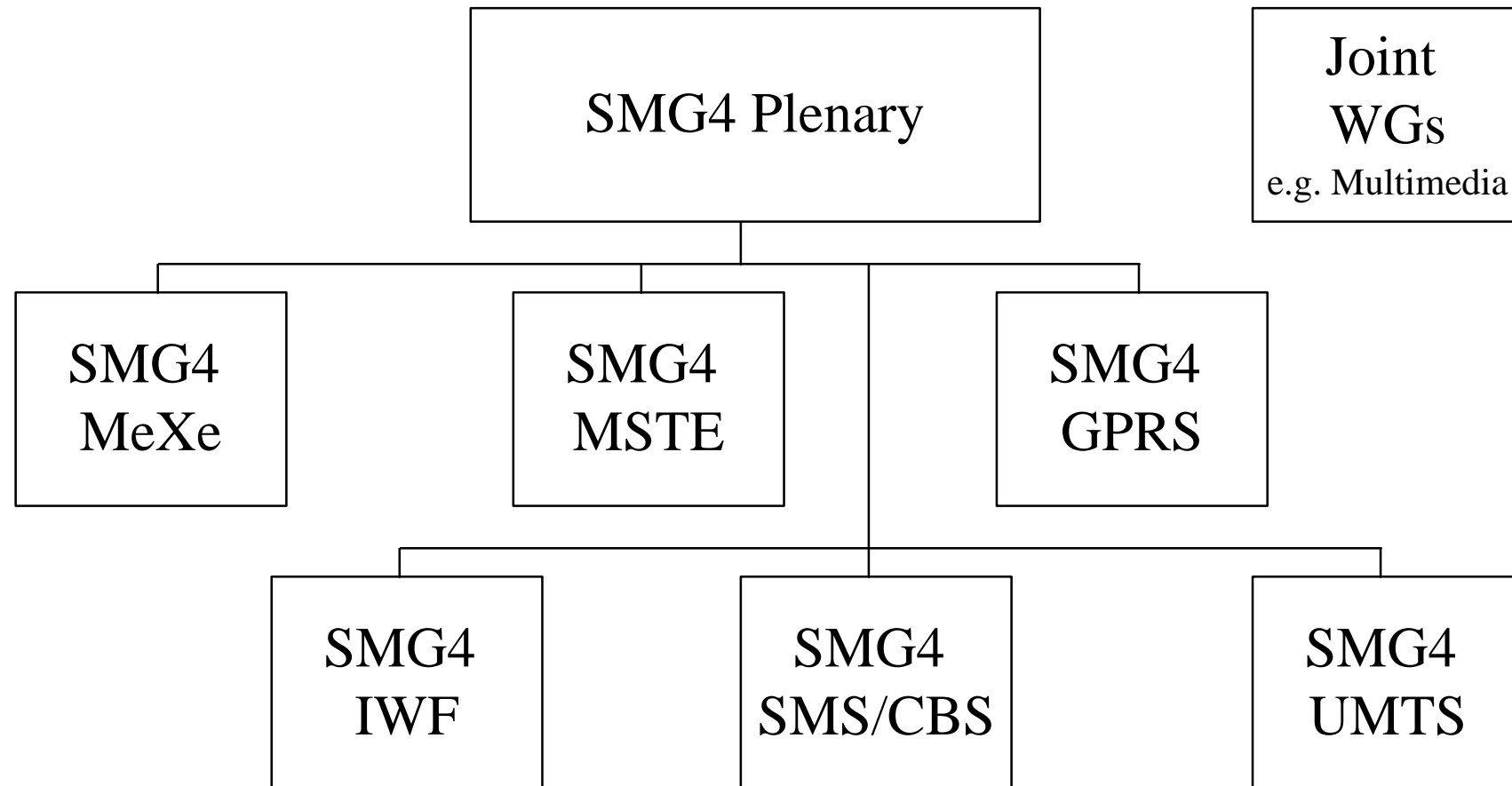
Data Services in UMTS

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Current Structure of SMG4



Work Transfer from SMG4 (1)

- End to End Data Review -> TSG Terminals
- Terminal Interfaces -> TSG Terminals
- MeXe -> TSG Terminals
- Packet Switched Services (IW) TSG Core Net
- Packet Switched Services (TE) TSG Terminals
- Circuit Switched Services (IW) TSG Core Net
- Circuit Switched Services (TE) TSG Terminals

Work Transfer from SMG4 (2)

- Joint Group on Multimedia -> TSGs System/Terminals
- Applications -> TSG Terminals
- SMS and CBS -> TSG Terminals

Realignment of SMG

- GSM work on Interworking to move to SMG3
- Establish good working relationship
SMG4 <-> TSG Terminals

Timescales

- Work in progress which is nearly complete
----> stays in SMG4 for completion
(MeXe Release 98, GPRS Octet Stream, etc.)
there may be some tidying up required in SMG between SMG#28 and SMG#29
- All other work should be moved by SMG#28
- The detail of work transfer should be worked out at relevant joint meetings SMG/3GPP before or soon after SMG#28.