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Title: Global Roadmap for UMTS and GSM

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Agenda Item: 7.1

This contribution reports the status of all the WIs proposed to SMG plenary, up to SMG 29 included, and to SA plenary, up to SA #4 included.

The WIs are classified by status (completed, on-going), and for the on-going WIs, the responsible group and the release are given.

According to the proposals made at SA#4 and SMG#29, it is identified for each WI which system it concerns (GSM only, UMTS only, or both systems).

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1 WIs completed

All these WIs applicable to Releases prior to Release 97 have been completed. The Release 98 WIs are either completed (in such case, they are reported in this section) or on-going (in such case, they are reported in the following section).

They all concern only GSM, as UMTS was not specified at that time.

WI Title	Prime	Rel	WI
	resp. STC		Status
A-bis Management of Alarms/faults on the Base Transceiver Station (BTS) site	SMG 6	97	completed
A-bis Management of measurement on the Base Transceiver Station (BTS) site	SMG 6	97	completed
A-bis Management of reconfiguration of the Base Transceiver Station (B TS) site	SMG 6	97	completed
Advanced Speech Call Items (ASCI) Phase 2	SMG	97	completed
Calling Name Presentation - US (CNAP-US)		97	completed
CAMEL phase 2		97	completed
Characteristics and test methods for handsfree mobile station	SMG	97	completed
Completion of Call to Busy Subscriber (GSM 10.60) (GSM 10.93)	SMG	97	completed
Enhancement of MAP Extensibility Mechanisms	SMG	97	completed
Enhancements of Fault Management Services and Modeling of Fault	SMG 6	97	completed
Management Services			
General Packet Radio Service Phase 1 (GPRS) - network part		97	completed
General Packet Radio Service Phase 1 (GPRS) - radio part		97	completed
Mobile assisted frequency allocation	SMG 2	97	completed
Modeling of Fault Management Services		97	completed
Network Indication of Alerting in the MS		97	completed
New Multiplexing Protocol on the ME-TE Interface		97	completed
North American Equal Access (NAEA)	SMG	97	completed
SIM Application Toolkit and SIM - Security mechanisms for the SIM Application	SMG 9	97	completed
Toolkit			
SMS Mobile Busy		97	completed
Support of Shared Interworking Function (SIWF)		97	completed
Fraud Information Gathering System(FIGS)	SMG10	98	completed
Harmonization of the PCS1900 Standards with the GSM Base Specification	T1P1	98	completed
Immediate Service Termination (IST): CAMEL based solution	SMG10	98	completed
Access to auxiliary devices, integrated into the ME platform, through the use of the	SMG09	98	completed
SIM Application Toolkit			
BTS performance requirements for very small cell scenarios (Picocells)	SMG02	98	completed
Call Deflection	SMG01	98	completed
Calling line identification enhancements (CLIe)	SMG03	98	completed
GPRS phase 1 for PCS1900	T1P1	98	completed
GSM - Cordless Telephony System (CTS)	SMG01	98	completed
Low Voltage SIM/ME Specification (1.8 volt)	SMG09	98	completed
Multiple Subscriber Profile (MSP) based on CAMEL ph. 2	SMG01	98	completed
Service Provider Number Portability (USA)	T1P1	98	completed
Tandem Free Operation of speech codecs in Mobile-to-Mobile Calls (MMCs) in	SMG03/11	98	completed
band (except for AMR)			
User-to-User Signalling (UUS) (GSM 10.87)	SMG01	98	completed

Other completed WIs

WI Title	Prime resp. STC
14.4 kbit/s User Data Rate	SMG
Amendment to cover 4 Watt DCS 1800 MS - radio link control specifications	SMG 2
Amendment to cover base station system requirements	SMG 2
Amendment to cover Explicit Call transfer (ECT) -overall	SMG
Auxiliary device access using SIM application toolkit	SMG 9

Barred Dialling Numbers (BDN)	SMG 1
Bearer independent data transfer	SMG 9
BSS repeaters	SMG
Compression of User Data	SMG 4
Concurrent Short Message Service/Cell Broadcast (SMS/CB) and data transfer in GSM 07.05	SMG 4
DECT access to the GSM network	SMG
Extensions to the SMS Alphabet	SMG
Fast moving Mobile Station (study) (GSM 05.20)	SMG 2
General Packet Radio Service (GPRS) Project scheduling (GSM 10.60)	SMG
General Packet Radio Service algorithm	SMG 10
High Speed Circuit Switched Data (HSCSD)	SMG
Inclusion of deferred tracing capabilities in GSM 12.08	SMG
Location Services and Wireless MS location service GSM 10.71	SMG 1
Mobile Station Application Execution Environment (MEXE) GSM 10.57	SMG
Multiple Subscriber Profile (MSP)	SMG
Multiplexing protocol on the ME -TE interface	SMG 4
Operation of multi-band GSM/DCS 1800 network by a single operator	SMG 1
Packet Data on Signalling channels Service (PDS)	SMG
Priority Set-up Service study (UIC Project)	SMG
Project scheduling and open issues: CAMEL Phases (GSM 10.78)	SMG
Radio Local Loop (RLL) using GSM - requirements GSM 01.50	SMG 1
Second SMS Broadcast Channel	SMG
Service Dialling Numbers	SMG 9
Short Message Service (SMS) concatenation	SMG 4
Short Message Service (SMS) concatenation description	SMG 1
Short Message Service (SMS) interworking extensions	SMG
Short Message Service (SMS) Mobile busy	SMG 4
Special SMS-Message-Indication	SMG
Study on Enhanced Full Rate speech codec	SMG
Study on how to introduce a mobile station software version identification, for operational reasons.	SMG
Support of additional call set-up MMI procedures	SMG
Support of Optimal Routeing (SOR)	SMG
Support of Private Numbering Plan (SPNP)	SMG
Support of Restricted Digital Information (RDI) and V.120 rate adaptio n in GSM	SMG
Tandem Free Operation (TFO) of speech codecs in Mobile-to-Mobile Calls (MMCs) (GSM 10.53)	SMG 3
Test method for handset and headset mobile station	SMG 2
Three Volt Technology SIM	SMG
Transmission of Date/Time and Zone	SMG 1
Transparently supporting UPT phase 1	SMG
Voice Broadcast Service study (UIC Project)	SMG

2 On-going WIs

1.1 WI applicable to GSM only

WI Title	Prime resp STC	Rel
BSS co-ordination of Radio Resource allocation for class A GPRS services - GSM Radio	SMG02	99
Access		
Enhanced Data rates for GSM Evolution (EDGE) - BSS	SMG02	99
General Packet Radio Service Phase 2 (GPRS) - radio part	SMG02	99
GSM on 400 MHz Frequency Band	SMG02	99
BSS co-ordination of Core Network Resource allocation for class A GPRS services -GSM-	SMG12	99
UMTS Core Network		

1.2 WIs applicable to GSM and UMTS

1.2.1 WI related to the services (S1 at 3GPP, SMG1 at SMG)

Advanced Addressing	SMG01	99
Automatic Establishment of Roaming Relations	SMG01	99
CAMEL Phase 3	SMG01	99
Display of Service Provider (SP) name by the Mobile Equipment (ME) description	SMG01	99
Follow Me	SMG01	99
GSM Mobile Number Portability EURO MNP	SMG01	98
Multiple Subscriber Profile (MSP) based on CAMEL ph. 3	SMG01	99
Service Continuity and Provision of VHE via GSM/UMTS	SMG01	99
Support of Localized Service Area (SoLSA)	SMG01	98
UMTS Charging & Billing	SMG01	99
UMTS Numbering, Addressing and Identities	SMG01	99
Virtual Home Environment	SMG01	99
Call Forwarding Enhancements (CFE)	SMG01 and	99
	TSG-N	
Unstructured Supplementary Service Data (USSD) enhancements	SMG01 and	99
	TSG-N	
MS and Network-Resident Execution Environments (MS/N-RExE)	SMG01?	99

1.2.2 WIs related to the system architecture (S2 at 3GPP, SMG12 at SMG)

Enhanced QoS Support in GPRS	S2	99
IP-in-IP tunneling in GPRS backbone for UMTS, phase 1	S2	99
UMTS Open Service Architecture	S2	99
Architecture of the GSM-UMTS Platform	S2/SMG12	99
Architecture overview of the GSM-UMTS System	S2/SMG12	99
End to End UMTS QoS Management	S2/SMG12	99
Multimedia in UMTS	S2/SMG12	99
Provision of text telephony service in GSM and UMTS	S2/SMG12	99
Study on Combined GSM and Mobile IP Mobility Handling in UMTS IP CN	S2/SMG12	99
Support for real time services in the Packet domain for GSM/GPRS/UMTS R99	S2/SMG12	99
UMTS Core based on ATM Transport	S2/SMG12	99
Location Services (LCS) for R99	S2	99
Support of non-realtime Multimedia Messaging Service	SMG04 or S2 ?	99

1.2.3 WIs related to the security (S3 at 3GPP, SMG10 at SMG)

Fraud Information Gathering Service (FIGS)	SMG 10	98
Fraud Information Gathering System applied to GPRS	SMG10	99
Immediate Service Termination (IST)	SMG 10	99
Immediate Service Termination (IST): CAMEL free solution	SMG10	99
Lawful Interception (LI)	SMG10	98
SS7 Security	SMG10	99

1.2.4 WIs related to the codec (S4 at 3GPP, SMG11 at SMG)

3G audio-visual terminal characteristics	S4	99
Codec for Low Bitrate Multimedia Telephony Service	S4	99
Mandatory Speech Codec for Narrowband Telephony Service	S4	99
Codec(s) for Wideband Telephony Services	S4	99
AMR – Wideband	S4	99
AMR - Adaptive Multi-Rate codec (GSM 10.70)	S4?	98
QoS for Speech and Multimedia Codec	S4	99
Tandem free operation in 3G systems and between 2G and 3G systems	S4	99

1.2.5 WIs related to the network management (S5 at 3GPP, SMG6 at SMG)

3G charging management ¹	S5	99
3G system configuration management	S5	99
3G system fault management	S5	99
3G system performance management	S5	99
Charging and Billing for GPRS – Advice of Charge	SMG06	99
Charging and Billing for GPRS – Hot Billing	SMG06	99
Charging and Billing for GPRS – Pre-Paid	SMG06	99

1.2.6 WIs related to the core network specification (TSG N at 3GPP, SMG3 at SMG)

• Concerning N1 (layer MM/CM/SM) (SMG3A at SMG)

N1	99
N1	99
N1	99
S1 / SMG01	99
and TSG-N	
S1 / SMG01	99
and TSG-N	
SMG03	99
SMG03	99
SMG03 or SMG	98
11?	
SMG03 or SMG	99
11?	
SMG04 / N	98 or
	99
	N1 N1 S1 / SMG01 and TSG-N S1 / SMG01 and TSG-N SMG03 SMG03 SMG03 or SMG 11 ? SMG03 or SMG

• Concerning N2 (Camel) (SMG3C at SMG)

None

• Concerning N3 (Interworking with external networks) (SMG3D at SMG)

Enhanced Data rates for GSM Evolution ((EDGE) - NSS	N3/ SMG03	99
Elinancea Bata rates for Obivi Evolution	LDGE) TIBB	113/ 5111003	//

1.2.7 WIs related to the testing of the MS (T1 at 3GPP, SMG7 at SMG)

MS Protocol/RF/EMC conformance specification	T1	99

1.2.8 WIs related to the data (T2 at 3GPP, SMG4 at SMG)

SMS Advanced Cell Broadcast	T2	99
SMS Cell Broadcast	T2	99
Messaging (Multimedia Messaging Service); Stage 2/3	T2	99
Messaging (Short Message Service (SMS); Stage 2/3	T2	99
Terminal interfaces (Alternatives to AT commands)	T2	99
Terminal interfaces (AT commands for 3GPP)	T2	99
Access to ISPs and Intranets in GPRS Phase 2 – Wireless/Remote Access to LANs	SMG04	99
Connecting an octet stream to a port on an Internet host	SMG04	98
GPRS Mobile IP Interworking	SMG04	99
Mobile Station Execution Environment (MExE)	SMG04	98 -
		99
Modem and ISDN interworking for GPRS	SMG04	98
Study on provision of facsimile services in GSM and UMTS	SMG04	99
Unstructured octet stream GPRS PDP Type	SMG04	98
Access to ISPs and Intranets in GPRS Phase 2 – Separation of GPRS Bearer Establishment	SMG04 / N	98 or
and ISP Service Environment Setup		99

 $^{^{1}}$ The difference with the WI entitled "UMTS Charging & Billing" is that the latter specifies the requirements whereas "3G charging management" intends to specify the actual mechanisms. This should be clarified in the WI titles.

Support of non-realtime Multimedia Messaging Service	SMG04 or S2 ?	99
GPRS - Point-To-Multipoint Services	SMG04	99

1.2.9 WIs related to the User Card (T3 at 3GPP, SMG9 at SMG)

Generic Logical and Physical specification for IC card and terminal interface	T	99
Specification of administrative commands and functions for IC cards	T	99
WAP WAE User Agent / SIM toolkit interworking	T	99
Display of Service Provider (SP) name by the Mobile Equipment (ME)	SMG09	99
GSM-API for SIM-Toolkit	SMG09	98
Specification of a bearer independent protocol for SAT applications to exchange data over	SMG09	99
the GSM network		
SIM toolkit test specification	SMG09	99
Generic Logical and Physical specification for IC card and terminal interface	SMG09	99
Specification of administrative commands and functions for IC cards	SMG09	99

1.2.10 WI related to the access network (TSG RAN at 3GPP, SMG2 at SMG)

• Concerning the testing of the BSS (RAN4 at 3GPP, SMG2C at SMG)

MS Antenna Test Method	1		R / SMG02	99

Concerning all the other groups

None

1.2.11 WIs handled by other groups

Location Services (LCS)	T1P1	98
EDGE Compact	SMG02	99
support for EGPRS in ANSI-136 networks	SMG02	99

1.3 WIs applicable to UMTS only

WI Title		Rel
	responsible STC	
Separation of Radio Resource (RR) and Mobility Management (MM) specific parts of the	N1	99
Mobile Sation Classmark (MS CM)		
NodeB O&M Functional Descriptions	R3	99
Definition of the UMTS Terrestrial Radio Access (UTRA)	R	99
New Access Network to Core Network (BSS-NSS) interface	S2	99
Mobile Station (MS) Protocol/RF/EMC conformance specification; (3G TS 34.123 family)	T1	99

1.4 WIs applicable to other system(s)

WI Title	Prime responsible STC	Rel	System(s)
GPRS phase 2 for PCS1900	T1P1	99	PCS

3 WIs with unclear status

WI Title	Prime	Rel	System(s)	Status
	STC			
Impact of Telecommunications Data Protection Directive on GSM	SMG01	99	GSM/UMTS	pending
Standards				
Service to GSM Handportables in trains	SMG02	99	GSM/UMTS	tbd
Generic signalling mechanism for service support	SMG03	99	GSM/UMTS	pending

Idle mode classmark	SMG03	99	GSM/UMTS	pending
Interworking with Mobile Satellite Systems	SMG03	99	GSM/UMTS	Pending
Support of Operator Specific Services (SOOS) when roaming	SMG1	tbd	GSM/UMTS	tbd
Noise Suppression for AMR speech codec	SMG11	99	GSM/UMTS	tbd
Requirements for equipments/systems interfacing GSM	tbd	00	GSM/UMTS	pending

Annex: Correspondence between 3GPP groups and SMG groups

3GPP group	Task	corresponding SMG group
TSG CN	Core Network specification	SMG3
TSG CN WG1	MM/CC/SM (Iu)	SMG3A
TSG CN WG2 (A &B)	CAMEL & MAP	SMG3C
	supplementary services	SMG3B
TSG CN WG3	Interworking with external networks	SMG3D
TSG RAN	Access Network specification	SMG2
TSG RAN AHG1	Ad-hoc group on ITU (internal) co- ordination	ITU co-ordination
TSG RAN WG1	Radio Layer 1 specification	SMG2 L1
TSG RAN WG2	Radio Layer 2 specification and Radio Layer 3 RR specification	SMG2 L23
TSG RAN WG3 (Iu)	lub specification, lur specification, lu specification and UTRAN O&M requirements	SMG2 ARC
TSG RAN WG4	Radio performance and protocol aspects from a system point of view - RF parameters and BS conformance	SMG2C (ex SMG8)
TSGSA	Service and system aspects	-
TSG SA WG1	Services	SMG1
TSG SA WG2	System Architecture	SMG12
TSG SA WG3	Security	SMG10
TSG SA WG4	Speech Codec	SMG11
TSG SA WG5	OAM	SMG6
TSG T	Terminal	-
TSG T WG1	Test MS	SMG7
TSG T WG2	Data	SMG4
TSG T WG3	SIM	SMG9