PT SMG

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GLOBAL SYSTEM FOR
MOBILE COMMUNICATIONS

Digital cellular telecommunications system (Phase 2+); Project scheduling and open issues: Mobile Station Execution Environment (MExE) (GSM 10.57 version 7.0.0)

European Telecommunications Standards Institute

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Contents

1 Scope

The purpose of this document is to describe the project plan for the Mobile Station Execution Environment (MEXE) work item standardisation.

This document is a 'living document' and permanently updated by PT SMG. Proposals for change shall be forwarded to PT SMG, where the latest version can be obtained any time. The MEXE specification rapporteurs should make sure that this document can always reflects the latest status of work.

1.1 References

1.2 Abbreviations

MNCRS WG4 Mobile Network Computer Reference Standard Working Group 4

2 General Considerations for MEXE

2.1 Support tools for specification work

ETSI FTP Server (docboc.etsi.fr or docbox.etsi.org):
SMG4 /../SMG/SMG4/WI_mexe .

Email distribution list: SMG4_mexe@list.etsi.fr (Subscription for contributors from SMG1, SMG4, SMG9 and SMG10, instructions on how to subscribe in Tdoc SMG4 97p488)

2.2 Decisions at SMG

	Workitem Rapporteur John Candish (NORTEL); email: jfc@nortel.com

2.2.1 SMG#22

SMG#22 agreed to establish a small project team that elaborated a workitem description backed by a feasibility study on mobile station application execution environment.

2.2.2 SMG#23

SMG#23 agreed the workitem description and the feasibility study conditionally. The condition is that the relationship between the SMG work and the WAP consortium can be clarified before WAP is taken into account.

2.2.3 SMG#24 (bis)

SMG4 is mandated to communicate directly to MNCRS and WAP, provided that the WAP consortium is open for new members. A LS had been sent to WAP from SMG#24bis, although some concerns were expressed afterwards.

2.2.4 SMG#25

It was noted that preceding SMG's had agreed co-operation with WAP under condition of open participation rights for interested parties.

SMG#25 asked SMG4 to organise a technical review meeting of the WAP papers. which was convened as a MExE Workshop on 27-28 April in Sophia Antipolis hosted by ETSI.

3 Co-operation with other groups

3.1 Co-operation with MNCRS-WG4:

Close working contact with MNCRS-WG4 should be established. Initially SMG4 shall contact MNCRS-WG4 informing them of SMG's proposed MEXE activities. SMG4 proposes that the work with MNCRS-WG4 is organised as follows:

SMG4 works with MNCRS-WG4 to produce an ETSI technical report on the additions required to Java to fully enable Java with GSM capabilities. It is envisaged that MNCRS-WG4 would then complete the necessary additions to Java standards. The technical report shall be actively maintained, in order that the Java standards can be kept up-to-date with new developments in GSM/UMTS.

Chairman of MNCRS-WG4: John Dykstra, Nortel (jdykstra@nortel.com, phone: +1-612-9328749)

Liaison officer to MNCRS: Jyrki Yli-Nokari, Nokia (jyrki.yli-nokari@nmp.nokia.com, phone: +358 400 834437)

Point of Contact in SMG4: Sverre Slotte, Nokia (sverre@research.nokia.com, phone: +358 9 4376 6208)

3.2 Co-operation with JavaSoft:

JavaSoft, as the body with overall responsibility for Java, should be kept informed of SMG's work with MNCRS-WG4. It is expected that the MNCRS group would forward the GSM specific additions on JAVA to JavaSoft for endorsement..

3.3 Co-operation with other Java bodies:

As the need arises.

3.4 Co-operation with the WAP Consortium:

It is evident that a relationship with the WAP Consortium needs to be established as soon as possible in order to co-ordinate MEXE work and to avoid discontinuities between the two.

A LS has been sent from SMG#23, SMG#24, SMG#24bis and SMG#25.

There is a liaison officer named to SMG: Jonas Branden, jonas.branden@ecs.ericsson.se

4 Deliverables on MExE

4.1 MExE service definition (stage 1), GSM 02.57

Responsible Body: SMG1

Draft GSM 02.57	Rapporteur Mark Cataldo, Lucent		approved at SMG#25

Scope of this document is the high level requirements for the MExE work item. The stage1 document will be restricted to cover the high level requirement but not imply an architecture or a realisation. The major input to the stage 1 is the requirements in the feasibility study. Though the requirements are independent of any technology, the SMG work will focus on the two complementary technologies identified in the feasibility study, i.e. WAP and JAVA. At the same time it is recognised that some work, e.g. on WAP is carried out outside SMG.

The requirements will be presented from the perspective of the user, network operator and the third part service provider. (The third party SP is understood as being a body that is not a GSM network operator but still offering services to subscribers with a MExE terminal)

High level charging requirements will be covered in the stage 1. Responsible for detailed elaboration future after stage 1 approval would be MoU SERG, CAGE2+ and SMG6.

High level Security requirements will be covered in the stage 1. Responsible for detailed elaboration future after stage 1 approval would be SMG10.

4.2 GSM enhanced Java environment

Responsible Body: SMG4

Draft GSM 03.57	Contact person Mr. John Candish	to be presented for information at SMG#27	to be approved at SMG#28

Scope of the deliverable will be:

1. Identify the necessary additions to the JAVA APIs to fully support GSM capabilities.

2. Propose the GSM reference profiles (e.g. personal, embedded JAVA and JAVA card) and the capabilities to be added as minimum capability set..

3. Propose a reference architecture of a mexe capable terminal, considering any possiible relationships with WAP architecture, JAVA environment in the terminal, JAVA Card within the SIM card the SIM Toolkit, possible and possible GSM bearers.

4. Describe the additional functions in sufficient detail.

4.3 New specification: Support of multiple MExE technologies in GSM/UMTS

Responsible Body: SMG4

07.57	Contact person Mr. John Candish	presented for information at SMG#27	approved at SMG#28

Scope of the deliverable:
Identify and propose a solution for the issues raised by the support of multiple mexe technologies in GSM/UMTS. In particular this means the specification of a common and evolvable protocol for terminal capability negotiation. The protocol itself will have to incorporate a version handling mechanism. Software download is envisaged as a negotiable capability of the protocol.

The need for this specification will be assessed and determined during the course of the year.

5 Project Plan for MExE

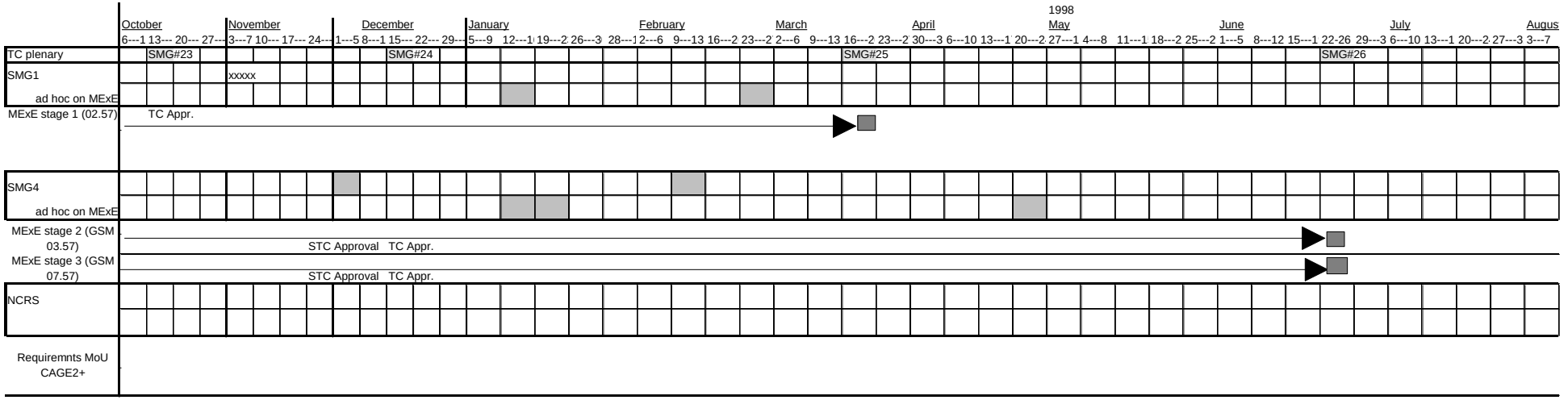
5.1 Scope of SMG meetings on MExE

	Date	Meeting	Scope	[expected] Input	[expected]Output
		E mail distribution of proposed stage 1	Joint SMG1, SMG4, SMG9 Ad hoc on requirements	Feasibility study, Requirements from other areas On the MOVE, etc.	Stage 1 first draft
	12-16 Jan 1998	SMG1 (Sophia Antipolis) + joint SMG1 & 4 adhoc	Review stage 1, mandate MExE group for finalization	Stage 1 draft from w orkshop	Stage 1 Send output for information to SMG6 and MoU CAGE2+, SMG10.
	28-30 Jan 1998	mexe-adhoc (Nokia/Helsinki)	Ad hoc on architecture and transport mechanisms	WAP standard (if available) JAVA API standards	First draft TR .
	9-13 Feb 1998	SMG4	Review output of mexe adhoc group. Review reply from MNCRS	dto.	Second draft.
	25-27 Feb 1998	mexe stage 1 SMG1/4 adhoc (if required)	Finalise stage 1	Draft stage 1 from SMG 1	Finalised Stage 1
	16-20/03/98	SMG#25	Approval of MEXE stage1	Stage 1	Stage 1 description
	27-29 April 1998	MExE Workshop	Review of WAP documentation against SMG requirements	MExE Stage 1, WAP specifications	LS to SMG and WAP Forum
			…..		
	15/05/98	SMG4	Stage 2	Initial MExE Stage 2	Draft MExE Stage 2
	22-26/06/98	SMG#26	Status of MExE w ork item	LS from MExE Workshop	Decision on co-operation w ith WAP
	???		Decision on w hether 07.57 required?		
	12-16/10/98	SMG#27	MEXE stage2 provided for information		
			Produce API specification, reference models, Profile of API		Output to JavaSoft, LS to SMG4 to check output.
			Javasoft endorses the JAVA language extensions. (WAP extensions?)		
	28/9-02/10/98	SMG4	Progress on MExE Stage 2 and Java(/WAP?) Requirements		
	30/11-04/12/98	SMG4	Check final output of MNCRS, approve MExE Stage 2. MExE Stage 3 decision.	Final output from MNCRS, MExE Stage 2.	Formal endorsement of JAVA GSM extensions
	08-12/02/99	SMG#28	Approval of MExE Stage 2		MExE Stage 2 Formal endorsement of JAVA GSM extensions.

5.2 Major Milestones for MExE (*to be derived by PT SMG*)

	Planned Date	Milestone	Status
1	26/11/97	Kick-off MExE at SMG4	
2	20/03/98	SMG#25: Approval of GSM 02.57 MExE stage 1	
3	26/06/98		
4	12-16/10/98	SMG#27: GSM 03.57 MExE stage 2 presented for information	
5	08-12/02/99	SMG#28: Approval of GSN 03.57 MExE Stage 2	

5.3 Overview on meetings with relevance for MExE



ANNEX B Lists of Outstanding Issues and technical decisions for MExE

B.1 List of outstanding issues and action points for MExE

Item	Status	Subject	[Solution] | [/ Due party/ due date]
9711-1	open	Type approval testing/ voluntary tests for MExE conforming terminals	
9711-5	open	Clarify how the final output standard would fit into the ISO model	
9801-1	closed	02.57: Provide input to 02.57 with regard to JAVA Card on the SIM with SIM Toolkit	SMG9 delegates, see 02.57 version 1.0.0
9801-2	closed	02.57: Elaborate on different level of trusted applications	, see 02.57 version 1.0.0
9801-3	closed	02.57: Review Requirements for Mobile Middleware and APIs in UMTS	all/next meeting, see 02.57 version 1.0.0
9801-4	closed	02.57: Elaborate on language and characterset considerations	, see 02.57 version 1.0.0
9801-5	closed	02.57: Elaborate requirements for subscriptions	, see 02.57 version 1.0.0

B.2 List of major decisions for MExE

9802-1		see 02.57 version 1.0.0	

History

Document history Note: Explicit changes in this document are not show n w ith revision marks	
26/06/98	v 3.0.0
19/01/2000	V7.0.0 approved SMG#26
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