3GPP T Meeting #12
Stockholm, Sweden, 13th – 15th June, 2001

Tdoc TP-010145

Title: ***Addition of Testing capabilities to the BB "Terminal Local Model"***

Source: ***CETECOM, MATERNA***

For Discussion

The implementation of sophisticated applications based on e.g. MExE add a greater variety of new functionality to the terminal.

With the complexity of the growth of applications, the potential risk of interoperability problems occurring between the operational system (OS) of the terminal and the running application increases. The potential risks are e.g. a blocked system after the UMTS protocol stack has crashed. In such a situation, setting up an emergency call may not be possible. Additionally, the user/customer acceptance of owning an apparently unstable terminal is questionable.

CETECOM therefore proposes an added testing possibility of the application to the Terminal Local Model. This would improve the reliability of the interworking between the application and the terminal as well as the interworking between the application and the network.
A way forward to adding the testing capability to the terminal is to incorporate an "agent" into the operational system which relays the interaction between the relevant components (e.g. application, OS UICC and UMTS protocol) to an appropriate output. This output could be a (non standardised) physical connector as well as a Bluetooth or IrDA element. Further elaboration of different solutions are necessary.
The addition of the following to the WI description "Terminal Local Model" should reflect the need for testing as mentioned above.

Work Item Description

Title

Terminal Local Model Rel-5

1 3GPP Work Area

	Radio Access
	Core Network
X	Services

2 Linked work items

MExE, USAT, SAT, USIM, SIM (T3 specific issues), Data Synchronisation, UE Management, Application testing (T1 specific).

3 Justification

The present rapid development of a diversity of new applications and application environments for mobile usage creates a complexity of previously unseen proportions that the Mobile Equipment has to handle. We are allowing third party software to run in various parts of the UE and we need a general framework to ensure that the APIs we create for the different UE-based toolkits work in harmony with each other. The correct interworking of the various application shall be assured. The potential risk of unwanted interference between the application and the operational system (OS) and/or protocol stack has to be minimised.

4 Objective

This work item will introduce a generic model approach for the ME environment; the purpose is *not* to categorise the applications / peripherals, but to try to structure the events that are external to, and has to be handled by, the ME Core Functions. This means that the structure or grouping of the events should be made from an *ME centric* perspective. The applications may be executed in the ME, in the peripherals, and/or in the UICC. Some applications that run on the UE side have counterparts in the network. This work item does not address the functions in the network. In addition, aspects of UE Functionality Split should be accommodated.
In this model an agent should be defined which is able to monitor the action, reaction and interaction of the running application with the OS and the protocol stack and to map this to an appropriate output device.

5 Service Aspects

Service aspects will need to be in line with Service specifications from S1.

6 MMI-Aspects

MMI will need to be considered in terms of its interaction with ongoing resource allocations to other applications (e.g., data call set up by MExE can be cancelled by MMI)
Testing aspects regarding MMI shall be taken into account.

7 Charging Aspects

None

8 Security Aspects

Security aspects of terminal local model will need to be analysed.

9 Impacts

Affects:	USIM	ME	AN	CN	Others
Yes	X	X			X
No			X		
Don't know				X	~~X~~

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments

Affected existing specifications				
Spec No.	CR	Subject	Approved at plenary#	Comments
23.227			TSG#14	

11 Work item rapporteurs

Olga Tomé, Ericsson

12 Work item leadership

T2

13 Supporting Companies

Ericsson, Motorola, Sierra Wireless, Siemens, Nokia, Mannesmann Mobilfunk, Vodafone, BT, Cetecom, Materna

14 Classification of the WI (if known)

	Feature (go to 14a)
X	Building Block (go to 14b)
	Work Task (go to 14c)

14b The WI is a Building Block: Parent Feature: Terminal Interfaces