Work Item Description

Title

Key Management of group keys for Voice Group Call Services

1　　　　　3GPP Work Area

x	Radio Access
x	Core Network
	Services

2　　　　Linked work items

(list of linked WIs)

3　　　　Justification

Voice Group Call Services are getting more and more important for GSM operators in order to provide a solution for group call users who want to replace their analog systems. Since existing standards like TETRA and TETRApol require to set up a completely new (i.e. expensive) network it is desirable to provide a cost effective solution which reuses existing infrastructure as much as possible. Because of this situation VGCS has been specified but unfortunately the specification of the ciphering mechanism is not complete.

VGCS is specified in 42.068, 43.068 and 44.068. Although ciphering of the air-interface is mentioned in 42.068 and 43.068 (a number of group keys is used for each group) no mechanism has been specified concerning the key management of the group keys, e.g. where to store the keys, transport mechanisms of keys.

4　　　　Objective

It is the goal of this WI to specify:

　　　Where group keys are stored in the network (e.g. Group Call Register, VLR, HLR, BSS)
　　　Where group keys are stored in the mobile equipment (e.g. USIM or handset)
　　　How groups are transported between different network entities (e.g. from the Group Call Register to the BTS)
　　　How the group key identification and selection is done

5　　　　Service Aspects

None

6　　　　MMI-Aspects

None

7　　　　Charging Aspects

None

8   Security Aspects

This is a security Work Item

9   Impacts

Affects:	UICC apps	ME	AN	CN	Others
Yes	x	x	x	x	
No					
Don't know					x

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

The following work plan is proposed:

SA#21	22nd - 25th Sep. 03	Approval of WID
SA3#30	6th – 10th Oct. 03	Draft Concept (stage 2 description) of Ciphering
SA3#31	18th – 21st Nov. 03	Concept finalised
SA#22	15th – 18th Dec. 03	First Stage 2 changes approved
SA#23	March 04	Stage 2 changes completed
SA#24	June 04	Stage 3 changes completed

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
42.068						SA1
43.068						CN1
44.068						CN1
42.069						SA1
43.069						CN1
44.069						CN1
31.102						T3
24.008						CN1
48.008						GERAN
42.009						SA3
43.020						SA3

11   Work item rapporteurs

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12   Work item leadership

SA3

13   **Supporting Companies**

Siemens, Vodafone D2, Ericsson, G&D

14   **Classification of the WI (if known)**

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

14a   The WI is a Feature: List of building blocks under this feature

(list of Work Items identified as building blocks)

14b   The WI is a Building Block: parent Feature

(one Work Item identified as a feature)

14c   The WI is a Work Task: parent Building Block

(one Work Item identified as a building block)