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**Source:** SA1  
**Title:** CRs to 42.068 & 42.069 on Addition of optional over-the-air ciphering (Rel-6)  
**Document for:** Approval  
**Agenda Item:** 7.1.3

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Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-25	SP-040508	42.068	002	-	Rel-6	B	Addition of optional over-the-air ciphering for VGCS	5.0.1	6.0.0	S1-040643
SP-25	SP-040508	42.069	002	-	Rel-6	B	Addition of optional over-the-air ciphering for VBS	5.0.1	6.0.0	S1-040644

CR-Form-v7	
<b>CHANGE REQUEST</b>	
⌘ <b>42.068 CR 002</b> ⌘ rev <b>-</b> ⌘ Current version: <b>5.0.1</b> ⌘	

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

**Proposed change affects:** UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	⌘ Addition of optional over-the-air ciphering for VGCS		
<b>Source:</b>	⌘ SA1 (Siemens)		
<b>Work item code:</b>	⌘ SECGKYV	<b>Date:</b>	⌘ 28/06/2004
<b>Category:</b>	⌘ <b>B</b> Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .	<b>Release:</b>	⌘ Rel-6 Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

<b>Reason for change:</b>	⌘ In LS S1-040565 (S3-040447) SA3 had informed SA1 on their activities concerning VGCS and VBS security. Up to date group call services (VGCS, VCS) did not use over-the-air ciphering - in contrast to what is common practice for "ordinary" telephony services. A work item of SA3 (Key Management of group keys for Voice Group Call Services) has removed this deficiency.  TS 42.068 needs to be aligned.
<b>Summary of change:</b>	⌘ To align TS 42.068 to the work done by SA3 a new clause on security requirements is introduced. VGCS shall be able to support over-the-air ciphering
<b>Consequences if not approved:</b>	⌘ Misalignment of stage 1 specification

<b>Clauses affected:</b>	⌘ new clause 5.6										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td>X</td> <td></td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </table> Other core specifications Test specifications O&M Specifications	Y	N	X			X		X	⌘ 43.020	
Y	N										
X											
	X										
	X										
<b>Other comments:</b>	⌘ The corresponding SA3 work in Rel-6 has already been done.										

### **How to create CRs using this form:**

Comprehensive information and tips about how to create CRs can be found at <http://www.3gpp.org/specs/CR.htm>.

Below is a brief summary:

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 5.6 Security requirements

VGCS shall be able to support over-the-air ciphering in order to provide confidentiality protection to group calls.

VGCS ciphering is an operator's option.

VGCS shall provide means such that only a legitimate service subscriber is able to participate in a ciphered VGCS call when the operator requires confidentiality protection for the group call. To include a subscriber into a ciphered voice group the required group data shall be stored on the USIM. Storing these group data on the USIM may be done e.g. during the USIM personalisation process or via OTA (over-the-air) provisioning.

A pre- Rel-6 VGCS capable mobile shall be able to participate in an un-ciphered group call, if it is part of that group.

CR-Form-v7

## CHANGE REQUEST

⌘ **42.069 CR 002** ⌘ rev - ⌘ Current version: **5.0.1** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

**Proposed change affects:** UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	⌘ Addition of optional over-the-air ciphering for VBS		
<b>Source:</b>	⌘ SA1 (Siemens)		
<b>Work item code:</b>	⌘ SECGKYV	<b>Date:</b>	⌘ 28/06/2004
<b>Category:</b>	⌘ <b>B</b>	<b>Release:</b>	⌘ Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)		2 (GSM Phase 2)
	<b>A</b> (corresponds to a correction in an earlier release)		R96 (Release 1996)
	<b>B</b> (addition of feature),		R97 (Release 1997)
	<b>C</b> (functional modification of feature)		R98 (Release 1998)
	<b>D</b> (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

<b>Reason for change:</b>	⌘ In LS S1-040565 (S3-040447) SA3 had informed SA1 on their activities concerning VGCS and VBS security. Up to date group call services (VGCS, VCS) did not use over-the-air ciphering - in contrast to what is common practice for "ordinary" telephony services. A work item of SA3 (Key Management of group keys for Voice Group Call Services) has removed this deficiency.  TS 42.069 needs to be aligned.
<b>Summary of change:</b>	⌘ To align TS 42.069 to the work done by SA3 a new clause on security requirements is introduced. VBS shall be able to support over-the-air ciphering
<b>Consequences if not approved:</b>	⌘ Misalignment of stage 1 specification

<b>Clauses affected:</b>	⌘ new clause 5.6										
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<b>Other comments:</b>	⌘ The corresponding SA3 work in Rel-6 has already been done.										

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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 5.6 Security requirements

VBS shall be able to support over-the-air ciphering in order to provide confidentiality protection to group calls.

VBS ciphering is an operator's option.

VBS shall provide means such that only a legitimate service subscriber is able to participate in a ciphered VBS call when the operator requires confidentiality protection for the group call. To include a subscriber into a ciphered voice group the required group data shall be stored on the USIM. Storing these group data on the USIM may be done e.g. during the USIM personalisation process or via OTA (over-the-air) provisioning.

A pre- Rel-6 VBS capable mobile shall be able to participate in an un-ciphered group call, if it is part of that group.