

TSG RAN Meeting #20
Hämeenlinna, Finland, 3 - 6 June, 2003

RP-030315

Title CRs (R99 and Rel-4/Rel-5 Category A) to TS 25.419 on Correction of Kill
Unsuccessful Outcome
Source TSG RAN WG3
Agenda Item 7.3.3

RAN3 Tdoc	Spec	curr. Vers.	new Vers.	REL	CR	Rev	Cat	Title	Work item
R3-030885	25.419	3.10.0	3.11.0	R99	110	2	F	Correction of Kill Unsuccessful Outcome	TEI
R3-030865	25.419	4.7.0	4.8.0	REL-4	111	1	A	Correction of Kill Unsuccessful Outcome	TEI
R3-030866	25.419	5.3.0	5.4.0	REL-5	112	1	A	Correction of Kill Unsuccessful Outcome	TEI

3GPP TSG-RAN3 Meeting #36
 Paris, France, 19th-23th May 2003

Tdoc #R3-030885

CR-Form-v7	
CHANGE REQUEST	
# 25.419 CR 110 # rev 2 #	Current version: 3.10.0 #

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

Title:	# Correction of Kill Unsuccessful Outcome		
Source:	# RAN WG3		
Work item code:	# TEI	Date:	# 19/05/2003
Category:	# F	Release:	# R99
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		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)

Reason for change:	# The message reference does not include the varying part “update number”. When the Update number is not recognized, the kill function shall still be executed and stop the broadcast of the message identified by the static part of Messageid+Serial Number.
Summary of change:	# The unsuccessful outcome for “unknown message reference” of the Kill function is deeper clarified in two parts: the case where only the Update Number is not recognized for which only the “number of broadcast completed” is unsuccessful, and the case where other part than the Update Number is not recognized for which the whole Kill function is unsuccessful. <u>Impact assessment towards the previous version of the specification (same release):</u> This CR has isolated impact towards the previous version of the specification (same release). This CR has an impact under functional and protocol point of view. The impact can be considered isolated because it only affects the Kill and Write-Replace functions.
Consequences if not approved:	# Serious deadlock when inter-working between the CBC and the RNC when the update numbers happen to be desynchronised.

The Kill function cannot be executed whereas the message is clearly identified, forcing the CBC to make a Reset of the whole Service Area and all pertaining Messages.

Clauses affected:		⌘	8.2.2, 8.2.3, 8.3.2, 8.3.3					
Other specs affected:		<table border="1"><tr><th>Y</th><th>N</th></tr><tr><td>X</td><td></td></tr></table>	Y	N	X		Other core specifications	⌘ TS 25.419 REL-4 CR111rev1 TS 25.419 REL-5 CR112rev1
	Y	N						
	X							
	<table border="1"><tr><td></td><td>X</td></tr></table>		X	Test specifications				
	X							
	<table border="1"><tr><td></td><td>X</td></tr></table>		X	O&M Specifications				
	X							
Other comments:		⌘						

How to create CRs using this form:

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- 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.

8.2 Write-Replace

8.2.1 General

The purpose of this Write-Replace procedure is to broadcast new information or replace a message already broadcast to a chosen Service Area(s).

8.2.2 Successful Operation

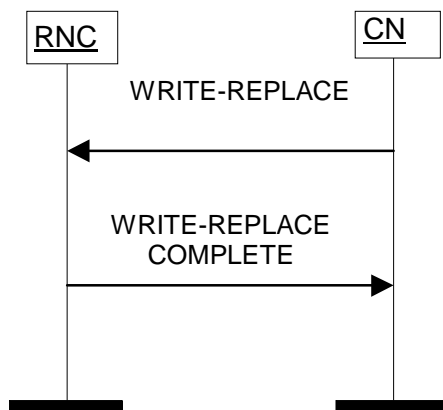


Figure 1: Write-Replace Procedure: Successful Operation

The CN shall initiate the procedure by sending a WRITE-REPLACE message to the RNC.

The presence of a *New Serial Number* IE will indicate that this is a new broadcast. The presence of both the *Old Serial Number* IE and a *New Serial Number* IE will indicate that this message is a replacement of an existing broadcast.

The RNC will initiate broadcasting of a new message or replace a message already broadcast as requested to the service areas as indicated in the *Service Areas List* IE.

The RNC shall uniquely identify the CBS message by the *Message Identifier* IE together with the [twelve leftmost bits of the](#) serial number in the *New Serial Number* IE and the *Service Area Identifier* IE.

The RNC shall perform the broadcast according to the value of the *Category* IE as follows:

- The *Category* IE, if given in the WRITE-REPLACE message, shall be treated as follows:
 1. If the value of *Category* IE is indicated as "High Priority", the RNC shall perform the broadcast immediately;
 2. If the value of *Category* IE is indicated as "Background", the RNC shall perform the broadcast when no other broadcast message indicated as "High Priority" or "Normal";
 3. If the value of *Category* IE is indicated as "Normal", the RNC shall perform the broadcast according to the *Repetition Period* IE.
- If the *Category* IE is not given in the WRITE-REPLACE message, the RNC shall perform the broadcast as the same category indicated as "Normal".

The RNC shall pass the *Data Coding Scheme* IE transparently to the radio interface protocol.

The RNC shall pass the *Broadcast Message Content* IE Transparently to the radio interface protocol.

The RNC shall broadcast the message frequently according to the value of the *Number of Broadcasts Requested* IE. If the value is set to "0", the RNC shall broadcast the message until the CN requests otherwise.

Upon receipt of the WRITE-REPLACE message the RNC shall respond using the WRITE-REPLACE COMPLETE message containing a *New Serial Number* IE indicating that resources are available as requested for the Service Area(s) specified and a *Number of Broadcasts Completed List* IE to indicate the number of times the old broadcast message has been successfully broadcast to the particular Service Area(s).

If the WRITE-REPLACE message sent from the CN:

- contained a *New Serial Number* IE but not an *Old Serial Number* IE, the *Number of Broadcasts* IE within the *Number of Broadcasts Completed List* IE is set to "0" for each included Service Area in the corresponding WRITE-REPLACE COMPLETE message.
- contained both the *New Serial Number* IE and the *Old Serial Number* IE, an entry is made in the *Number of Broadcasts* IE in the *Number of Broadcasts Completed List* IE for each included Service Area in the corresponding WRITE-REPLACE COMPLETE message.

8.2.3 Unsuccessful Operation

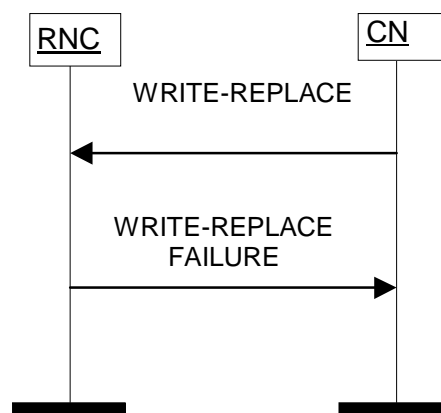


Figure 2: Write-Replace Procedure: Un-Successful Operation

If the RNC cannot allocate all the resources requested for the Service Area(s) specified in the WRITE-REPLACE message, then the RNC shall return a WRITE-REPLACE FAILURE message to the CN. A list of Service Area(s) where the requested resources are unavailable and appropriate cause value shall be provided in this WRITE-REPLACE FAILURE message in the *Failure List* IE.

This WRITE-REPLACE FAILURE message may also include those Service Area(s) where the requested resources were available and shall indicate in the *Number of Broadcasts Completed List* IE those Service Area(s) which completed the request.

If the WRITE-REPLACE message sent from the CN:

- contained a *New Serial Number* IE but not an *Old Serial Number* IE, the *Number of Broadcasts* IE within the *Number of Broadcasts Completed List* IE is set to '0' for each included Service Area in the corresponding WRITE-REPLACE FAILURE message.
- contained both the *New Serial Number* IE and the *Old Serial Number* IE, an entry is made in the *Number of Broadcasts* IE in the *Number of Broadcasts Completed List* IE for each included Service Area in the corresponding WRITE-REPLACE FAILURE message.
- contained both the *New Serial Number* IE and the *Old Serial Number* IE, but if the old CBS message *Old-Serial Number-IE* is unknown to RNC (i.e. it can not execute the kill request), it shall terminate the Write Replace procedure and return a WRITE-REPLACE-FAILURE message with appropriate cause value.

8.2.4 Abnormal Conditions

8.3 Kill

8.3.1 General

The purpose of the Kill procedure is to stop the broadcast of the indicated message.

8.3.2 Successful Operation

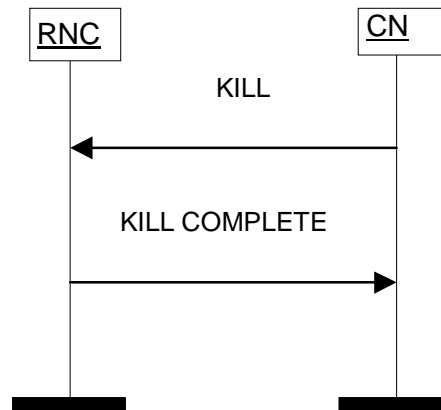


Figure 3: Kill Procedure: Successful Operation

The CN shall initiate the procedure by sending a KILL message to the RNC.

Upon receipt of the KILL message the RNC shall stop broadcasting the ~~indicated~~CBS message, which is indicated in the *Message Identifier* IE and ~~the twelve leftmost bits of the~~*Old Serial Number* IE, in the indicated Service Area(s) as indicated in the *Service Areas List* IE.

The RNC shall respond using the KILL COMPLETE message, containing the *Old Serial Number* IE and the Number of *Broadcast Completed List* IE ~~when contains each all~~ Service Areas ~~which~~ successfully ~~performed the requested operation~~ stopped the broadcast. ~~and It shall indicate in the Number of Broadcast Completed List IE~~ for each of these Service Area(s), the number of times the ~~broadcast~~CBS message has been sent to ~~this~~ particular Service Area(s) for broadcast.

8.3.3 Unsuccessful Operation

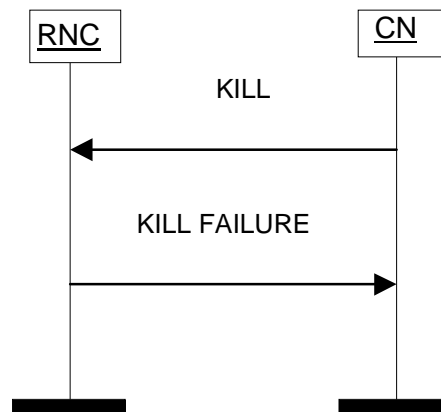


Figure 4: Kill Procedure: Un-Successful Operation

If the RNC fails to stop broadcasting the ~~indicated~~CBS message as indicated in the KILL message in at least one service area, the RNC shall return the KILL FAILURE message to the CN. A *Failure List* IE indicating the list of Service Area(s) where the CBS message ~~reference is not valid~~ was not recognized or the broadcast could not be stopped together with the ~~and~~ appropriate cause value shall be provided in ~~the~~ KILL FAILURE message. This response message may also – if applicable - indicate in the *Number of Broadcasts Completed List* IE those Service Area(s) ~~which completed the request~~ where the KILL message ~~was~~ successfully stopped the broadcast.

8.3.4 Abnormal Conditions

3GPP TSG-RAN3 Meeting #36
 Paris, France, 19th-23th May 2003

Tdoc #R3-030865

CR-Form-v7

CHANGE REQUEST

25.419 CR 111 # rev **1** # Current version: **4.7.0**

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

Title:	# Correction of Kill Unsuccessful Outcome		
Source:	# RAN WG3		
Work item code:	# TEI	Date:	# 19/05/2003
Category:	# A	Release:	# Rel-4
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		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)

Reason for change:	# The message reference does not include the varying part “update number”. When the Update number is not recognized, the kill function shall still be executed and stop the broadcast of the message identified by the static part of Messageid+Serial Number.
Summary of change:	# The unsuccessful outcome for “unknown message reference” of the Kill function is deeper clarified in two parts: the case where only the Update Number is not recognized for which only the “number of broadcast completed” is unsuccessful, and the case where other part than the Update Number is not recognized for which the whole Kill function is unsuccessful. <u>Impact assessment towards the previous version of the specification (same release):</u> This CR has isolated impact towards the previous version of the specification (same release). This CR has an impact under functional and protocol point of view. The impact can be considered isolated because it only affects the Kill and Write-Replace functions.
Consequences if not approved:	# Serious deadlock when inter-working between the CBC and the RNC when the update numbers happen to be desynchronised.

The Kill function cannot be executed whereas the message is clearly identified, forcing the CBC to make a Reset of the whole Service Area and lose all pertaining Messages.

Clauses affected:		⌘	8.2.2, 8.2.3, 8.3.2, 8.3.3										
Other specs affected:		<table border="1"> <tr> <td>Y</td> <td>N</td> </tr> <tr> <td>X</td> <td></td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td></td> <td>X</td> </tr> </table>	Y	N	X			X			X	Other core specifications	⌘ TS 25.419 R99 CR110rev2 TS 25.419 REL-5 CR112rev1
	Y	N											
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Other comments:		⌘											

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8.2 Write-Replace

8.2.1 General

The purpose of this Write-Replace procedure is to broadcast new information or replace a message already broadcast to a chosen Service Area(s).

8.2.2 Successful Operation

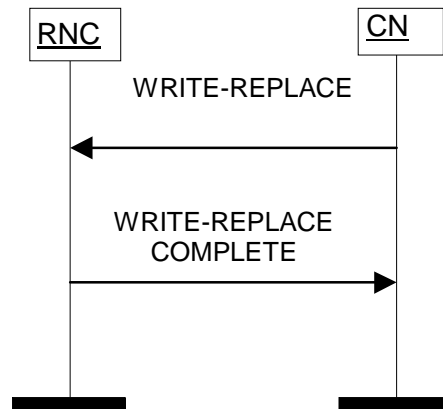


Figure 1: Write-Replace Procedure: Successful Operation

The CN shall initiate the procedure by sending a WRITE-REPLACE message to the RNC.

The presence of a *New Serial Number IE* will indicate that this is a new broadcast. The presence of both the *Old Serial Number IE* and a *New Serial Number IE* will indicate that this message is a replacement of an existing broadcast.

The RNC will initiate broadcasting of a new message or replace a message already broadcast as requested to the service areas as indicated in the *Service Areas List IE*.

The RNC shall uniquely identify the CBS message by the *Message Identifier IE* together with the [twelve leftmost bits of the](#) serial number in the *New Serial Number IE* and the *Service Area Identifier IE*.

The RNC shall perform the broadcast according to the value of the *Category IE* as follows:

- The *Category IE*, if given in the WRITE-REPLACE message, shall be treated as follows:
 1. If the value of *Category IE* is indicated as "High Priority", the RNC shall perform the broadcast immediately;
 2. If the value of *Category IE* is indicated as "Background", the RNC shall perform the broadcast when no other broadcast message indicated as "High Priority" or "Normal";
 3. If the value of *Category IE* is indicated as "Normal", the RNC shall perform the broadcast according to the *Repetition Period IE*.
- If the *Category IE* is not given in the WRITE-REPLACE message, the RNC shall perform the broadcast as the same category indicated as "Normal".

The RNC shall pass the *Data Coding Scheme IE* transparently to the radio interface protocol.

The RNC shall pass the *Broadcast Message Content IE* Transparently to the radio interface protocol.

The RNC shall broadcast the message frequently according to the value of the *Number of Broadcasts Requested IE*. If the value is set to "0", the RNC shall broadcast the message until the CN requests otherwise.

Upon receipt of the WRITE-REPLACE message the RNC shall respond using the WRITE-REPLACE COMPLETE message containing a *New Serial Number IE* indicating that resources are available as requested for the Service Area(s) specified and a *Number of Broadcasts Completed List IE* to indicate the number of times the old broadcast message has been successfully broadcast to the particular Service Area(s).

If the WRITE-REPLACE message sent from the CN:

- contained a *New Serial Number IE* but not an *Old Serial Number IE*, the *Number of Broadcasts IE* within the *Number of Broadcasts Completed List IE* is set to "0" for each included Service Area in the corresponding WRITE-REPLACE COMPLETE message.
- contained both the *New Serial Number IE* and the *Old Serial Number IE*, an entry is made in the *Number of Broadcasts IE* in the *Number of Broadcasts Completed List IE* for each included Service Area in the corresponding WRITE-REPLACE COMPLETE message.

8.2.3 Unsuccessful Operation

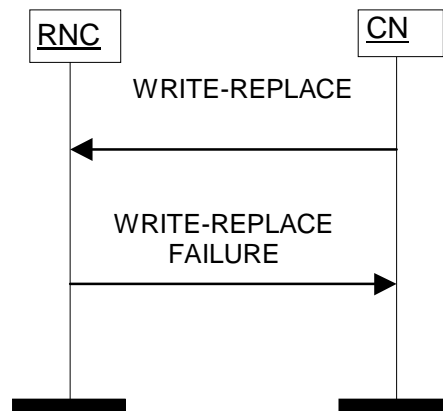


Figure 2: Write-Replace Procedure: Un-Successful Operation

If there is at least one Service Area specified in the WRITE-REPLACE message for which the RNC cannot allocate all the resources requested or for which the RNC cannot complete as requested, then the RNC shall return a WRITE-REPLACE FAILURE message to the CN as an outcome of the procedure. A list of Service Area(s) where the requested resources are unavailable or for which the RNC cannot complete as requested and appropriate cause value shall be provided in this WRITE-REPLACE FAILURE message in the *Failure List IE*.

This WRITE-REPLACE FAILURE message may also include those Service Area(s) where the requested resources were available and shall indicate in the *Number of Broadcasts Completed List IE* those Service Area(s) which completed the request successfully.

If the WRITE-REPLACE message sent from the CN:

- contained a *New Serial Number IE* but not an *Old Serial Number IE*, the *Number of Broadcasts IE* within the *Number of Broadcasts Completed List IE* is set to '0' for each included Service Area in the corresponding WRITE-REPLACE FAILURE message.
- contained a *New Serial Number IE* but not an *Old Serial Number IE*, and the [CBS message-New Serial Number IE](#) is already used by the RNC, it shall consider the Write Replace procedure as failed for this Service Area and return a WRITE-REPLACE-FAILURE message with the Service Area Identifier of this particular Service Area included in the *Failure List IE* together with the cause value "Message-reference already-used".
- contained both the *New Serial Number IE* and the *Old Serial Number IE*, an entry is made in *Number of Broadcasts IE* in the *Number of Broadcasts Completed List IE* for each included Service Area in the corresponding WRITE-REPLACE FAILURE message.

- contained both the *New Serial Number* IE and the *Old Serial Number* IE, but if the old CBS message ~~*Old Serial Number IE*~~ is unknown to the RNC (i.e. it can not execute the kill request) for a particular Service Area, it shall consider the Write Replace procedure as failed for this Service Area. When the procedure is completed, the RNC shall return a WRITE-REPLACE-FAILURE message which includes the Service Area Identifier of this particular Service Area in the *Failure List* IE together with the cause value “Valid-CN-message-not-identified”.

8.2.4 Abnormal Conditions

8.3 Kill

8.3.1 General

The purpose of the Kill procedure is to stop the broadcast of the indicated message.

8.3.2 Successful Operation

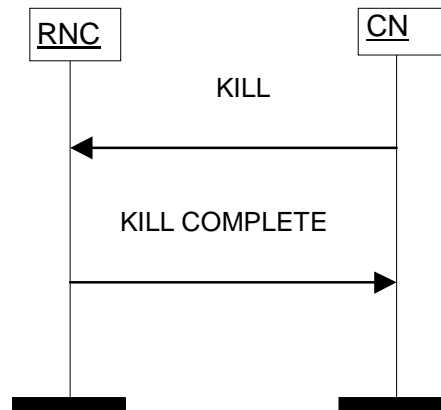


Figure 3: Kill Procedure: Successful Operation

The CN shall initiate the procedure by sending a KILL message to the RNC.

Upon receipt of the KILL message the RNC shall stop broadcasting the ~~CBS~~~~indicated~~ message, which is indicated in the *Message Identifier* IE and ~~the twelve leftmost bits of the~~ *Old Serial Number* IE, in the indicated Service Area(s) as indicated in the *Service Areas List* IE.

The RNC shall respond using the KILL COMPLETE message, containing the *Old Serial Number* IE and the *Number of Broadcast Completed List* IE ~~when contains each all~~ Service Areas ~~which~~ successfully ~~stopped the broadcast performed the requested operation and~~ It shall indicate in the *Number of Broadcast Completed List* IE for each of these Service Area(s), the number of times the ~~broadcast-CBS~~ message has been sent to ~~this~~ particular Service Area(s) for broadcast.

8.3.3 Unsuccessful Operation

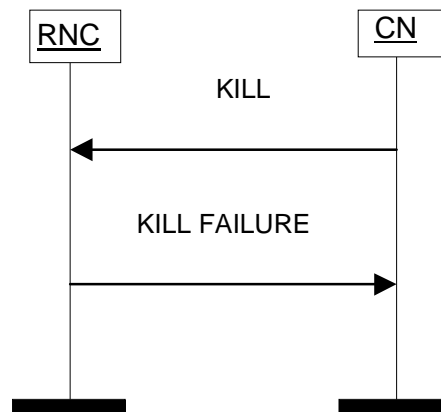


Figure 4: Kill Procedure: Un-Successful Operation

If the RNC fails to stop broadcasting the ~~indicated CBS~~ message as indicated in the KILL message in at least one service area, the RNC shall return the KILL FAILURE message to the CN. A *Failure List* IE indicating the list of Service Area(s) where the CBS message was not recognized or the broadcast could not be stopped together with the reference is not valid and appropriate cause value shall be provided in ~~the~~ KILL FAILURE message. This response message may also – if applicable - indicate in the *Number of Broadcasts Completed List* IE those Service Area(s) ~~which completed the request~~ where the KILL message ~~was~~ successfully stopped the broadcast.

8.3.4 Abnormal Conditions

3GPP TSG-RAN3 Meeting #36
 Paris, France, 19th-23th May 2003

Tdoc #R3-030866

CR-Form-v7	
CHANGE REQUEST	
# 25.419 CR 112 # rev 1 #	Current version: 5.3.0 #

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

Title:	# Correction of Kill Unsuccessful Outcome		
Source:	# RAN WG3		
Work item code:	# TEI	Date:	# 19/05/2003
Category:	# A	Release:	# Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	# The message reference does not include the varying part “update number”. When the Update number is not recognized, the kill function shall still be executed and stop the broadcast of the message identified by the static part of Messageid+Serial Number.
Summary of change:	# The unsuccessful outcome for “unknown message reference” of the Kill function is deeper clarified in two parts: the case where only the Update Number is not recognized for which only the “number of broadcast completed” is unsuccessful, and the case where other part than the Update Number is not recognized for which the whole Kill function is unsuccessful. <u>Impact assessment towards the previous version of the specification (same release):</u> This CR has isolated impact towards the previous version of the specification (same release). This CR has an impact under functional and protocol point of view. The impact can be considered isolated because it only affects the Kill and Write-Replace functions.
Consequences if not approved:	# Serious deadlock when inter-working between the CBC and the RNC when the update numbers happen to be desynchronised.

The Kill function cannot be executed whereas the message is clearly identified, forcing the CBC to make a Reset of the whole Service Area and all pertaining Message-ids.

Clauses affected:	⌘	8.2.2, 8.2.3, 8.3.2, 8.3.3									
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Y	N										
X											
	X										
	X										
affected:											
Other comments:	⌘										

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8.2 Write-Replace

8.2.1 General

The purpose of this Write-Replace procedure is to broadcast new information or replace a message already broadcast to a chosen Service Area(s).

8.2.2 Successful Operation

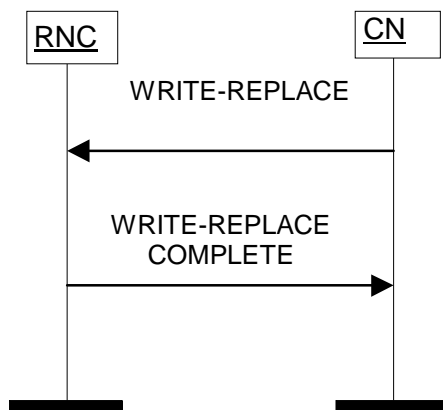


Figure 1: Write-Replace Procedure: Successful Operation

The CN shall initiate the procedure by sending a WRITE-REPLACE message to the RNC.

The presence of a *New Serial Number* IE will indicate that this is a new broadcast. The presence of both the *Old Serial Number* IE and a *New Serial Number* IE will indicate that this message is a replacement of an existing broadcast.

The RNC will initiate broadcasting of a new message or replace a message already broadcast as requested to the service areas as indicated in the *Service Areas List* IE.

The RNC shall uniquely identify the CBS message by the *Message Identifier* IE together with the [twelve leftmost bits of the](#) serial number in the *New Serial Number* IE and the *Service Area Identifier* IE.

The RNC shall perform the broadcast according to the value of the *Category* IE as follows:

- The *Category* IE, if given in the WRITE-REPLACE message, shall be treated as follows:
 1. If the value of *Category* IE is indicated as "High Priority", the RNC shall perform the broadcast immediately;
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- If the *Category* IE is not given in the WRITE-REPLACE message, the RNC shall perform the broadcast as the same category indicated as "Normal".

The RNC shall pass the *Data Coding Scheme* IE transparently to the radio interface protocol.

The RNC shall pass the *Broadcast Message Content* IE Transparently to the radio interface protocol.

The RNC shall broadcast the message frequently according to the value of the *Number of Broadcasts Requested* IE. If the value is set to "0", the RNC shall broadcast the message until the CN requests otherwise.

Upon receipt of the WRITE-REPLACE message the RNC shall respond using the WRITE-REPLACE COMPLETE message containing a *New Serial Number* IE indicating that resources are available as requested for the Service Area(s) specified and a *Number of Broadcasts Completed List* IE to indicate the number of times the old broadcast message has been successfully broadcast to the particular Service Area(s).

If the WRITE-REPLACE message sent from the CN:

- contained a *New Serial Number* IE but not an *Old Serial Number* IE, the *Number of Broadcasts* IE within the *Number of Broadcasts Completed List* IE is set to "0" for each included Service Area in the corresponding WRITE-REPLACE COMPLETE message.
- contained both the *New Serial Number* IE and the *Old Serial Number* IE, an entry is made in the *Number of Broadcasts* IE in the *Number of Broadcasts Completed List* IE for each included Service Area in the corresponding WRITE-REPLACE COMPLETE message.

8.2.3 Unsuccessful Operation

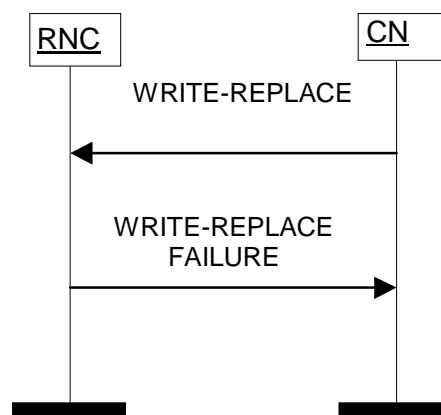


Figure 2: Write-Replace Procedure: Un-Successful Operation

If there is at least one Service Area specified in the WRITE-REPLACE message for which the RNC cannot allocate all the resources requested or for which the RNC cannot complete as requested, then the RNC shall return a WRITE-REPLACE FAILURE message to the CN as an outcome of the procedure. A list of Service Area(s) where the requested resources are unavailable or for which the RNC cannot complete as requested and appropriate cause value shall be provided in this WRITE-REPLACE FAILURE message in the *Failure List* IE.

This WRITE-REPLACE FAILURE message may also include those Service Area(s) where the requested resources were available and shall indicate in the *Number of Broadcasts Completed List* IE those Service Area(s) which completed the request successfully.

If the WRITE-REPLACE message sent from the CN:

- contained a *New Serial Number* IE but not an *Old Serial Number* IE, the *Number of Broadcasts* IE within the *Number of Broadcasts Completed List* IE is set to '0' for each included Service Area in the corresponding WRITE-REPLACE FAILURE message.
- contained a *New Serial Number* IE but not an *Old Serial Number* IE, and the [CBS message New Serial Number IE](#) is already used by the RNC, it shall consider the Write Replace procedure as failed for this Service Area and return a WRITE-REPLACE-FAILURE message with the Service Area Identifier of this particular Service Area included in the *Failure List* IE together with the cause value "Message-reference already-used".
- contained both the *New Serial Number* IE and the *Old Serial Number* IE, an entry is made in *Number of Broadcasts* IE in the *Number of Broadcasts Completed List* IE for each included Service Area in the corresponding WRITE-REPLACE FAILURE message.

- contained both the *New Serial Number IE* and the *Old Serial Number IE*, but if the [old CBS message](#) ~~*Old Serial Number IE*~~ is unknown to the RNC (i.e. it can not execute the kill request) for a particular Service Area, it shall consider the Write Replace procedure as failed for this Service Area. When the procedure is completed, the RNC shall return a WRITE-REPLACE-FAILURE message which includes the Service Area Identifier of this particular Service Area in the *Failure List IE* together with the cause value “Valid-CN-message-not-identified”.

8.2.4 Abnormal Conditions

8.3 Kill

8.3.1 General

The purpose of the Kill procedure is to stop the broadcast of the indicated message.

8.3.2 Successful Operation

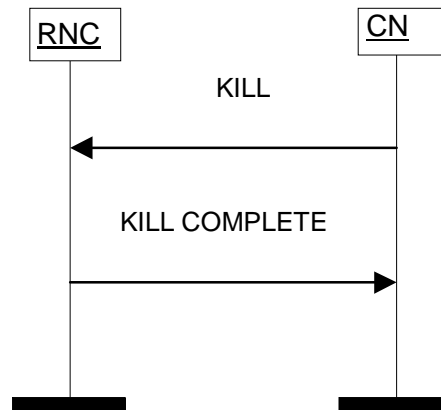


Figure 3: Kill Procedure: Successful Operation

The CN shall initiate the procedure by sending a KILL message to the RNC.

Upon receipt of the KILL message the RNC shall stop broadcasting the ~~indicated CBS~~ message, which is indicated in the *Message Identifier IE* and the twelve leftmost bits of the *Old Serial Number IE*, in the indicated Service Area(s) as indicated in the *Service Areas List IE*.

The RNC shall respond using the KILL COMPLETE message, containing the *Old Serial Number IE* and the *Number of Broadcast Completed List IE* ~~when all contains each~~ Service Areas ~~which~~ successfully stopped the broadcast. ~~performed the requested operation~~ It shall indicate in the *Number of Broadcast Completed List IE* and for each of these Service Area(s), the number of times the ~~broadcast CBS~~ message has been sent to this particular Service Area(s) for broadcast.

8.3.3 Unsuccessful Operation

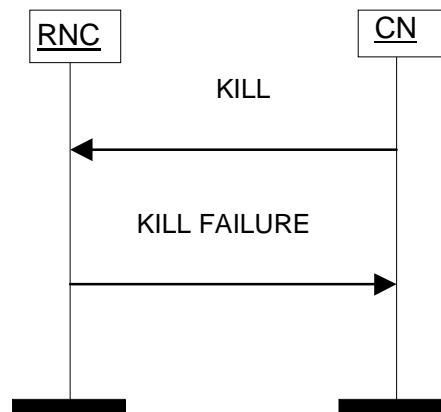


Figure 4: Kill Procedure: Un-Successful Operation

If the RNC fails to stop broadcasting the ~~indicated CBS~~ message as indicated in the KILL message in at least one service area, the RNC shall return the KILL FAILURE message to the CN. A *Failure List* IE indicating the list of Service Area(s) where the CBS message was not recognized or the broadcast could not be stopped together with the reference is not valid and appropriate cause value shall be provided in ~~the~~ KILL FAILURE message. This response message may also – if applicable - indicate in the *Number of Broadcasts Completed List* IE those Service Area(s) ~~which completed the request~~ where the KILL message ~~was~~ successfully stopped the broadcast.

8.3.4 Abnormal Conditions