3GPP TSG CN Plenary **Tdoc NP-000623**
Meeting #10, Bangkok, Thailand
6th – 8th December 2000

Source: **TSG CN WG 5**

Title: **CRs to R99 Work Item OSA, 3GPP TR 29.998**

Agenda item: **7.23**

Document for: **APPROVAL**

Introduction:

This document contains **7** CRs on **R99** Work Item **"OSA"**, that have been agreed by **TSG CN WG5**, and are forwarded to TSG CN Plenary meeting #10 for approval.

SPEC	CR	REV	TDoc	PHASE	SUBJECT	CAT	OLD VER
29.998	004		N5-000192	R99	Removing the restriction of not being able to invoke subsequent routeReq methods	F	3.1.0
29.998	005		N5-000193	R99	Method and operation name corrections and other clarifications in the mapping document	D	3.1.0
29.998	006		N5-000194	R99	Removal gsmSCFAddress from AnyTimeInterrogationErr in periodicLocationReportErr	F	3.1.0
29.998	007		N5-000196	R99	Chapter numbering corrections	D	3.1.0
29.998	008		N5-000230	R99	TriggeredLocationReportErr mapping from a failed AnyTimeModification	F	3.1.0
29.998	009		N5-000198	R99	Timestamp in triggeredLocationInformation CSE SCS's local time	F	3.1.0
29.998	010		N5-000251	R99	Corrections to the scope in order to allow HLR/SCS configuration in addition to SCS/CSE	F	3.1.0

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Vienna, Austria, 17-19 Oct 2000

Document N5-000192
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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29.998	CR	004	Current Version:	3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	CN#10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [ ] UTRAN / Radio [ ] Core Network [X]

Source: Nokia **Date:** 11 October 2000

Subject: Removing the restriction of not being able to invoke subsequent routeReq methods

Work item: OSA

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: Restricting the invocation of subsequent routeReq (old name routeCallToDestinationReq still referred in chapter 6.2.1) method (restricting also Connect CAP operation) and requiring all triggers to be armed at once, would make e.g. Hunting and Follow-on type of services not possible. It is also out of the scope the mappind document to define this.

Clauses affected: 6.2.1

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:


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<--------- double-click here for help and instructions on how to create a CR.

6.2.1 routeReq

routeReq is an asynchronous method which requests routing of the call (and inherently attached parties) to the destination party, via a passive call leg~~. Subsequent invocations of the ***routeCallToDestinationReq*** method are not allowed. This implies that all triggers, required by the application throughout the lifetime of the call, need to be armed in the parameter **responseRequested**~~.

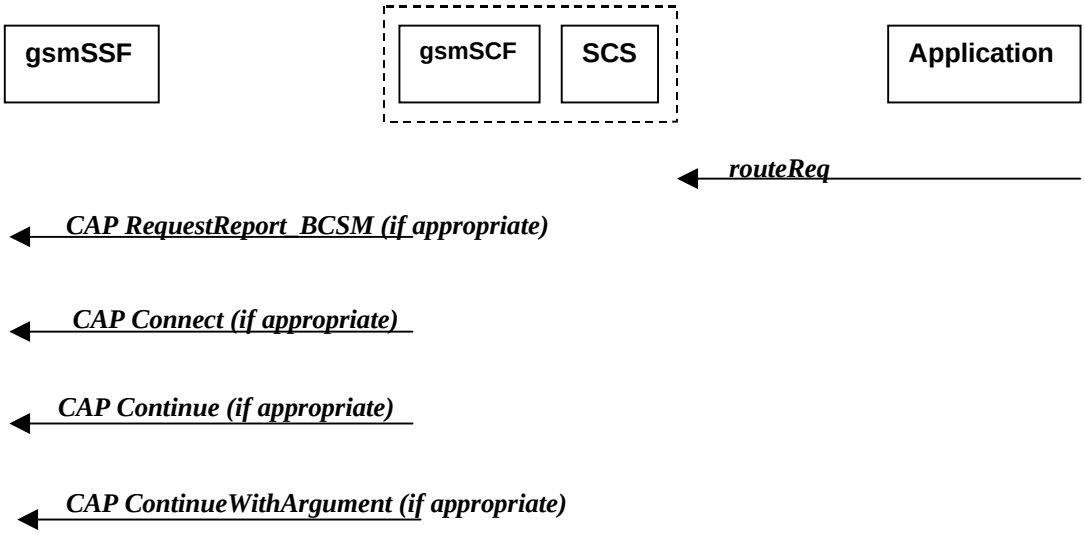

Figure 6-9: Call Flow for routeReq

Normal Operation

Three alternatives have been identified

1. The application changes the destination number

Pre-conditions	The application has been notified of a new call and the call object exists. The ***setCallChargePlan*** and ***getCallInfoReq*** methods may have been invoked
1	The application invokes the ***routeReq*** method
2	The SCS sends an equivalent internal message to the gsmSCF
3	The gsmSCF sends a CAP ***RequestReportBSCM*** if the application needs to be informed about the outcome of the request
4	The gsmSCF sends a CAP ***Connect*** message

Parameter Mapping

From: ***routeReq***	To: CAP ***RequestReportBCSMEvent***
callSessionID	
responseRequested (TpCallReportRequestSet) :	**bcsmEvent** :
MonitorMode (TpCallMonitorMode, section 14)	**monitorMode**
CallReportType (TpCallReportType, section 14)	**eventTypeBCSM**
AdditionalReportCriteria (TpCallReportAdditionalCriteria) **:**	**dPSpecificCriteria** :
noAnswerDuration	**applicationTimer**

serviceCode	
	legID[1]
targetAddress	
originatingAddress	
originalDestinationAddress	
redirectingAddress	
appInfo	
callLegSessionID	

From: ***routeReq***	To: CAP ***Connect***
callSessionID	
responseRequested	
targetAddress	**destinationRoutingAddress**
originatingAddress	
originalDestinationAddress	**originalCalledPartyID**
redirectingAddress	**redirectingPartyID**
appInfo (TpCallAppInfoSet) :	
CallAppAlertingMechanism	**alertingPattern**
CallAppNetworkAccessType	
CallAppInterworkingIndicators	**serviceInteractionIndicatorsTwo**
CallAppTeleService	
CallAppBearerService	
CallAppPartyCategory	**callingPartysCategory**
PresentationAddress	**genericNumbers**[2]
CallAppGenericInfo	
CallAppAdditionalAddress	**genericNumbers**
callLegSessionID	
	redirectionInformation
	suppressionOfAnnouncement
	oCSIApplicable
	na-Info :

1 the legID for both the originating and the terminating leg are required for the disconnect event

2 operator specific function if CallAppAdditionalAddress is not used to map the genericNumbers parameter

	naCarrierInformation
	naOliInfo
	naChargeNumber
	connectArgExtension :
	cug-Interlock
	cug-OutgoingAccess
	nonCug-Call

2. The application does not modify the destination address and does not provide any Application Information

Pre-conditions	The application has been notified of a new call and the call object exists. The ***setCallChargePlan*** and ***getCallInfoReq*** methods may have been invoked
1	The application invokes the ***routeReq*** method
2	The SCS sends an equivalent internal message to the gsmSCF
3	The gsmSCF sends a CAP ***RequestReportBSCM*** if the application needs to be informed about the outcome of the request
4	The gsmSCF sends a CAP ***Continue*** message

Parameter Mapping

From: ***routeReq***	To: CAP ***RequestReportBCSMEvent***
callSessionID	
responseRequested (TpCallReportRequestSet) :	**bcsmEvent** :
MonitorMode (TpCallMonitorMode, section 14)	**monitorMode**
CallReportType (TpCallReportType, section 14)	**eventTypeBCSM**
AdditionalReportCriteria (TpCallReportAdditionalCriteria **:**	**dPSpecificCriteria** :
noAnswerDuration	**applicationTimer**
serviceCode	
	legID[3]
targetAddress	
originatingAddress	
originalDestinationAddress	
redirectingAddress	
appInfo	

3 the legID for both the originating and the terminating leg are required for the disconnect event

callLegSessionID	

From: ***routeReq***	To: CAP ***Continue***
callSessionID	
responseRequested	
targetAddress	
originatingAddress	
originalDestinationAddress	
redirectingAddress	
appInfo	
callLegSessionID	

3. The application does not modify the destination party number but modifies Application information

Pre-conditions	The application has been notified of a new call and the call object exists. The ***setCallChargePlan*** and ***getCallInfoReq*** methods may have been invoked
1	The application invokes the ***routeReq*** method
2	The SCS sends an equivalent internal message to the gsmSCF
3	The gsmSCF sends a CAP ***RequestReportBSCM*** if the application needs to be informed about the outcome of the request
4	The gsmSCF sends a CAP ***ContinueWithArgument*** message

Parameter Mapping

From: ***routeReq***	To: CAP ***RequestReportBCSMEvent***
callSessionID	
responseRequested (TpCallReportRequestSet) :	**bcsmEvent** :
MonitorMode (TpCallMonitorMode, section 14)	**monitorMode**
CallReportType (TpCallReportType, section 14)	**eventTypeBCSM**
AdditionalReportCriteria (TpCallReportAdditionalCriteria) **:**	**dPSpecificCriteria** :
noAnswerDuration	**applicationTimer**
serviceCode	
	legID[4]
targetAddress	

[4] the legID for both the originating and the terminating leg are required for the disconnect event

originatingAddress	
originalDestinationAddress	
redirectingAddress	
appInfo	
callLegSessionID	

From: ***routeReq***	To: CAP ***ContinueWithArgument***
callSessionID	
responseRequested	
targetAddress	
originatingAddress	
originalDestinationAddress	
redirectingAddress	
appInfo :	
CallAppAlertingMechanism	**alerting Pattern**
CallAppNetworkAccessType	
CallAppInterworkingIndicators	**serviceInteractionIndicatorsTwo**
CallAppTeleService	
CallAppBearerService	
CallAppPartyCategory	**callingPartysCategory**
PresentationAddress	**genericNumbers**[5]
CallAppGenericInfo	
CallAppAdditionalAddress	**genericNumbers**
callLegSessionID	
	suppressionOfAnnouncement
	na-Info :
	naCarrierInformation
	naOliInfo
	naChargeNumber
	continueWithArgumentArgExtension :
	cug-Interlock
	cug-OutgoingAccess

[5] operator specific function if CallAppAdditionalAddress is not used to map the genericNumbers parameter

	nonCug-Call

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Document N5-000193
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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29.998	CR	005	Current Version:	3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: CN#10 *list expected approval meeting # here ↑*	for approval	X	strategic		*(for SMG use only)*
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Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [ ] UTRAN / Radio [ ] Core Network [X]

Source: Nokia **Date:** 11 October 2000

Subject: Method and operation name corrections and other clarifications in the mapping document

Work item: OSA

Category: *(only one category shall be marked with an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification	X		Release 99	X
				Release 00	

Reason for change: The TR 29.998 contains so many misleading typos, mainly in the area of different method and operation names, that it makes reading objectionable. This CR corrects some of the faults.

Clauses affected: 6.2.4, 7.1.17, 7.1.18, 8.1.1, 8.1.3, 11.2, 11.3, 11.5, 11.6, 11.7, 11.9

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:


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<--------- double-click here for help and instructions on how to create a CR.

6.2.4 release

release is a method used to request the release of the call and associated objects.

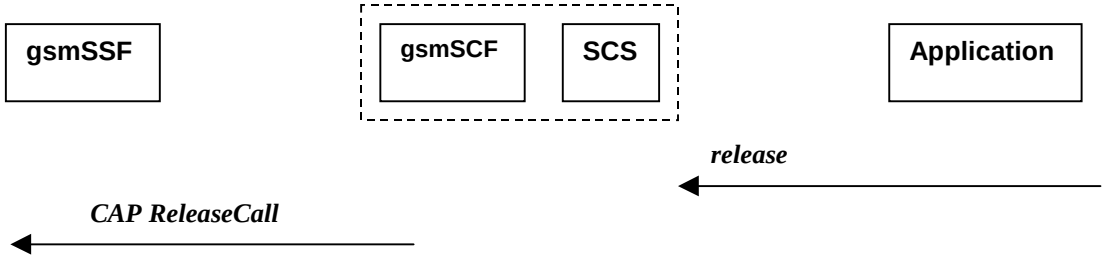

Figure 6-12: Call Flow for release

Normal Operation

Pre-conditions	**Call is in progress**
1	The application invokes the ***release~~Call~~*** method
2	The SCS sends an equivalent message to the gsmSCF
3	The gsmSCF invokes the CAP ***ReleaseCall*** operation

Parameter Mapping

From: ***release***	To: ***CAP ReleaseCall***
callSessionID	
cause (TpCallReleaseCause) :	
value (specified in ITU-T Q.850)	**Cause**
location	

7.1.17 abortActionReq

abortActionReq is an asynchronous method that aborts a user interaction operation, e.g. a ***sendInfoReq***, from the specified call. The call remains otherwise unaffected. The user interaction call service interrupts the current action on the specified call.

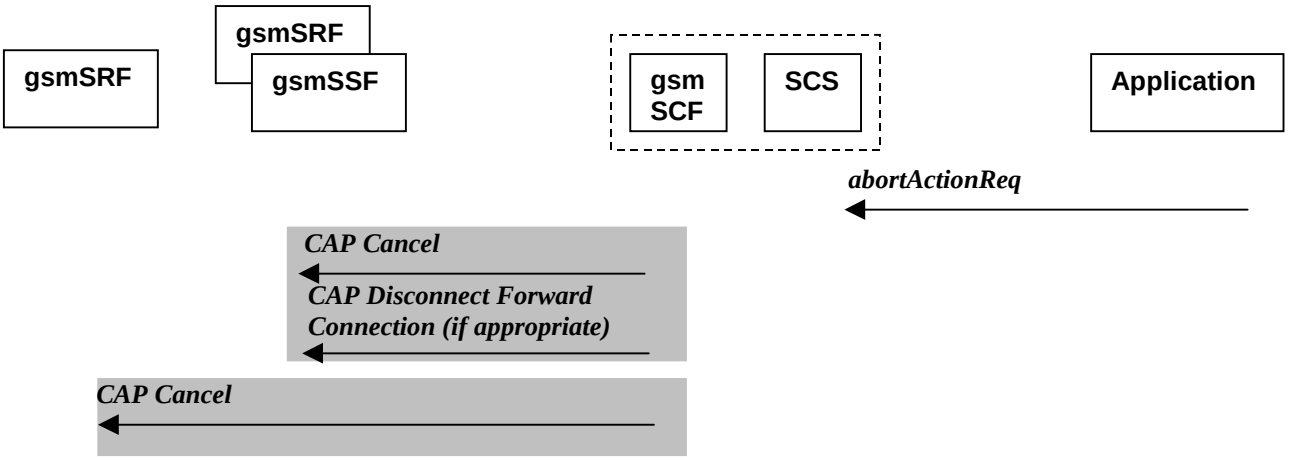

Figure 7-24: Call Flow for abortActionReq

Normal Operation

Pre-conditions	The application has previously invoked e.g. the ***sendInfoAndCollect****Req**~~Err~~*. The gsmSCF is waiting for a response form the user
1	The application invokes a ***abortActionReq***
2	The SCS sends an equivalent internal message to the gsmSCF
3	The gsmSCF sends a CAP ***Cancel*** message to the gsmSSF or the gsmSRF as appropriate and may send a CAP ***DisconnectForwardConnection*** to the gsmSSF if appropriate

Parameter Mapping

From: ***abortActionReq***	To: CAP ***Cancel***
userInteractionSessionID	
assignmentID	**InvokeID**
	allRequests

7.1.18 abortActionRes

abortActionRes is an asynchronous method that confirms that the request to abort a user interaction operation on a call was successful.

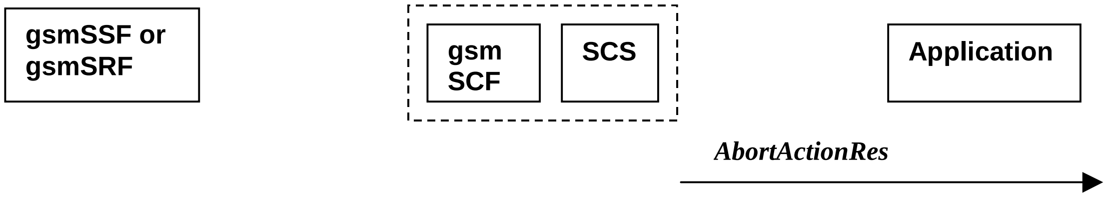

Figure 7-25: Call Flow for abortActionRes

There is no equivalent CAP/MAP mapping message

Normal Operation

Pre-conditions	The application has previously invoked the ***abortActionReq~~Res~~***. The gsmSCF has sent the necessary instruction to the gsmSSF or the gsmSRF and is running a timer awaiting for any possible error return message. This timer expires and no errors are returned
2	The gsmSCF determines that the CAP ***Cancel*** operation was successful. The gsmSCF sends an equivalent internal message to the SCS
3	The SCS invokes the ***abortActionRes*** method to the appropriate application.

8.1.1 sendInfoReq

When the sendInfoReq is used to send a text message (e.g. URL or textual notification) to the terminal, the SCS can use the WAP Gateway/Push Proxy (WGP/WPP) as underlying mechanism to deliver the message to the terminal.

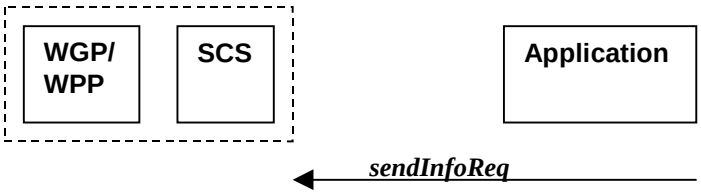

Figure 8-1: Call Flow for sendInfoReq

Normal Operation

1. Sending of messages via the WGP/WPP

Pre-conditions	
1	The application invokes the ***sendInfoReq*** method
2	The SCS sends an equivalent internal message to the WGP/WPP

8.1.3 sendInfoErr

sendInfoErr is an asynchronous method that indicates that the request to send information was unsuccessful.

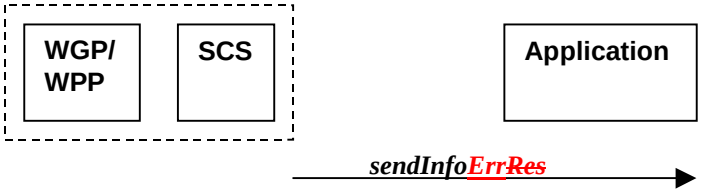

Figure 8-3: Call Flow for sendInfoRes

Normal Operation

1. Sending of messages via the WGP/WPP

Pre-conditions	The application has previously invoked the ***sendInfoReq*** method
1	The WGP/WPP sends an internal message to the SCS
2	The SCS identifies the correct application and invokes the ***sendInfoErr*** method

11.2 locationReportRes

locationReportRes is a method that delivers a mobile location report towards the application. The report contains mobile-related location information for one or several users[1].

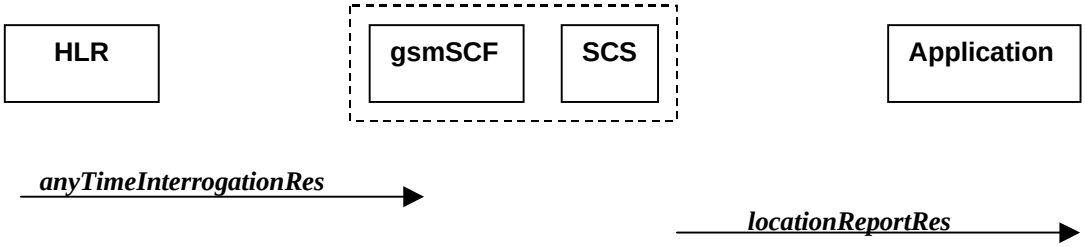

Figure 11-2: Call Flow for locationReportRes

Normal Operation

Pre-conditions	The Application has previously invoked the ***locationReportReq*** method causing the gsmSCF to send a MAP a***nyTimeInterrogation*** to the HLR
1	The HLR sends MAP ***anyTimeInterrogationRes*** to the gsmSCF/SCS ~~The application invoked the ***locationReportReq*** method~~
2	The SCS responds to the application via a ***locationReportRes*** method invocation

Parameter Mapping

From: MAP ***AnyTimeInterrogationAck***	To: ***locationReportRes***
invokeId	
	assignmentID
subscriberInfo (sequence of optional parameters, of which only locationInformation is present)	
locationInformation	**locations**
	UserID
	StatusCode
geographicalInformation **geodeticInformation**	**GeographicalPosition (geodeticInformation is mapped if present, otherwise geographicInformation is used)**
ageOfLocationInformation	**Timestamp (calculated from ageOfLocationInfo)**
vlr-number	**VlrNumber**
locationNumber	**LocationNumber**
cellGlobalIdorServiceAreaIdOrLai	**CellidOrLai**
extensionContainer	

[1] note that a request of location information for several users has to be mapped to several MAP-operation-requests

selectedLSA-Id	
msc-Number	
currentLocationRetrieved	

11.3 locationReportErr

locationReportErr is a method that indicates that the location report request has failed.

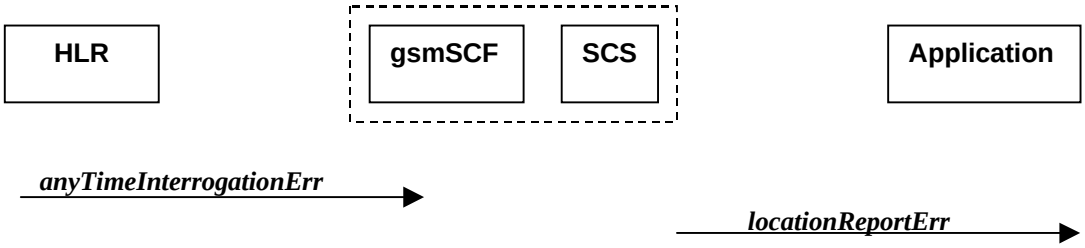

Figure 11-3: Call Flow for locationReportErr

Normal Operation

Pre-conditions	The Application has previously invoked the ***locationReportReq*** method causing the gsmSCF to send a MAP a***nyTimeInterrogation*** to the HLR
1	The HLR responds with a negative acknowledgement ***anyTimeInterrogationErr*** to the gsmSCF/SCS ~~The application invoked the ***locationReportReq*** method~~
2	The SCS responds to the Application via a ***locationReportErr*** method invocation

Parameter Mapping

From: MAP ***anyTimeInterrogationErr***	To: ***locationReportErr***
	assignmentID
SystemFailure **ATI-NotAllowed** **DataMissing** **UnexpectedDataValue** **UnknownSubscriber**	**cause**
	diagnostic

11.5 periodicLocationReportingStop

periodicLocationReportingStop is a method used by the application to stop the sending of periodic mobile location reports for one or several users[1].

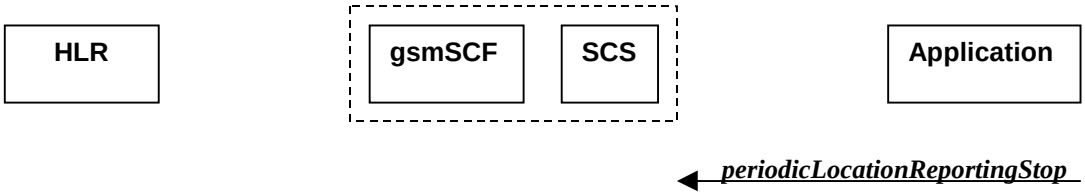

Figure 11-5: Call Flow for periodicLocationReportingStop

Normal Operation

Pre-conditions	
1	The application invoked the ***periodicLocationReporting*****Stop*~~StartReq~~* method
2	The gsmSCF stops the periodic sending of MAP ***AnyTimeInterrogationReq*** to the HLR, for the subscribers as indicated in the stop request (for details of StopRequest see e.g. with triggeredLocationReportingStop)..

Parameter Mapping

None.

[1] note that a request of location information for several users has to be mapped to several MAP-operation-requests

11.6 periodicLocationReport

periodicLocationReport is a method that provides periodic delivery of mobile location reports. The reports are containing mobile-related location information for one or several users[1].

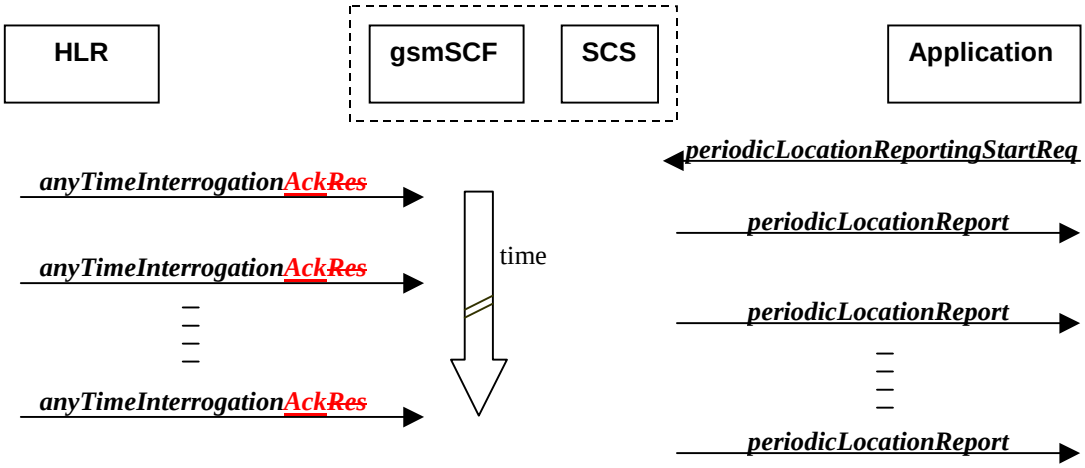

Figure 11-6: Call Flow for periodicLocationReport

Normal Operation

Pre-conditions	The Application has previously invoked the ***periodicLocationReportingStartReq*** method causing the gsmSCF to periodically send MAP a***nyTimeInterrogation*** to the HLR
1	The HLR sends periodically ***anyTimeInterrogationAck*** to the gsmSCF/SCS ~~The application invoked the ***periodicLocationReportingStartReq*** method~~
2	The SCS responds to the Application via ***periodicLocationReport*** method invocation

Parameter Mapping

From: MAP ***AnyTimeInterrogationAck***	To: ***periodicL~~l~~ocationReport~~Res~~***
invokeID	**assignmentID**
subscriberInfo (sequence of optional parameters, of which only is present)	
locationInformation	**locations**
	UserID
	StatusCode
geographicalInformation **geodeticInformation**	**GeographicalPosition (geodeticInformation is mapped if present, otherwise geographicInformation is used)**
ageOfLocationInfromation	**Timestamp**
vlr-number	**VlrNumber**

[1] note that a request of location information for several users has to be mapped to several MAP-operation-requests

locationNumber	**LocationNumber**
cellGlobalIdorServiceAreaIdOrLai	**CellidOrLai**
extensionContainer	
selectedLSA-Id	
msc-Number	
currentLocationRetrieved	

11.7 periodicLocationReportErr

periodicLocationReportErr is a method that indicates that the requested periodic location report has failed. Note that errors only concerning individual users are reported in the ordinary periodicLocationReport() message.

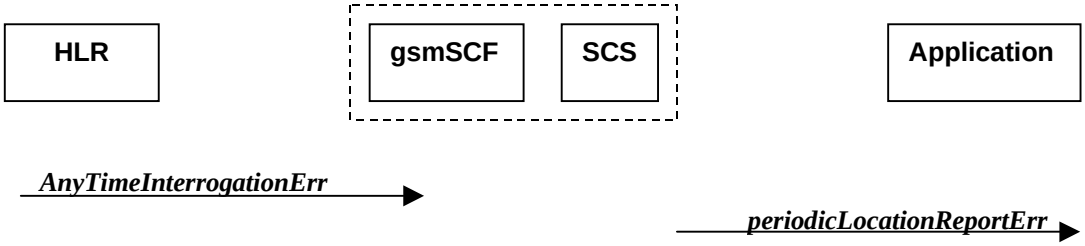

Figure 11-7: Call Flow for periodicLocationReportErr

Normal Operation

Pre-conditions	The Application has previously invoked the ***periodicLocationReportingStartReq*** method causing the gsmSCF to periodically send MAP a***nyTimeInterrogation*** to the HLR
1	The HLR sends a negative acknowledgement ***anyTimeInterrogationErr*** to the gsmSCF/SCS ~~The application invoked the ***periodicLocationReportingStartReq*** method~~
2	The SCS responds to the Application via ***periodicLocationReportErr*** method invocation

Parameter Mapping

From: MAP ***anyTimeInterrogationErr***	To: ***periodicLocationReportErr***
	assignmentID
SystemFailure **ATI-NotAllowed** **DataMissing** **UnexpectedDataValue** **UnknownSubscriber**	**cause**
	diagnostic
gsmSCF-Address	

11.9 triggeredLocationReportingStop

triggeredLocationReportingStop is a method used by the application to request that triggered mobile location reporting should stop.

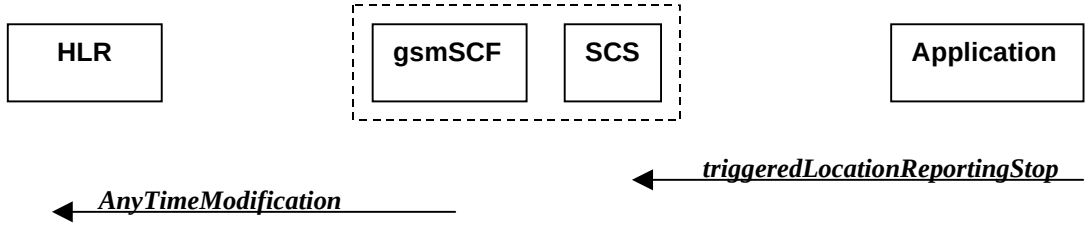

Figure 11-9: Call Flow for triggeredLocationReportingStop

Normal Operation

Pre-conditions	
1	The application has initiated a ***triggered-Location-Reporting*****Stop** ~~***assignment***~~ method
2	The gsmSCF sends a MAP ***AnyTimeModificationReq*** to the HLR in order to de-activate the CAMEL subscription Information (M-CSI). In case stopping of triggered location reporting is requested for multiple users, multiple ATM requests are sent to the HLR.

Parameter Mapping

From: ***triggeredLocationReportingStop***	To: MAP ***AnyTimeModificationReq***
stopRequest **assignmentID** **stopScope** **users**	**subscriberIdentity** **(either extracted from assignmentID,** **or mapped from 'users')** **modificationInstruction in ModificationRequestFor-CSI has value 'deactivate', for M-CSI** **(Mobility CAMEL Subscription Information)**
	gsmSCF-Address

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Document N5-000194
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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29.998	CR	006	Current Version:	3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	CN#10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*	(U)SIM		ME		UTRAN / Radio		Core Network	X

Source: Nokia **Date:** 11 October 2000

Subject: Removal gsmSCFAddress from AnyTimeInterrogationErr in periodicLocationReportErr

Work item: OSA

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: There is no such explicit gsmSCFAddress parameter in ATI Return Error, the error is returned to the gsmSCF which has sent the ATI. The parameter has probably been accidentally copied here.

Clauses affected: 11.7

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:

help.doc

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periodicLocationReportErr is a method that indicates that the requested periodic location report has failed. Note that errors only concerning individual users are reported in the ordinary periodicLocationReport() message.

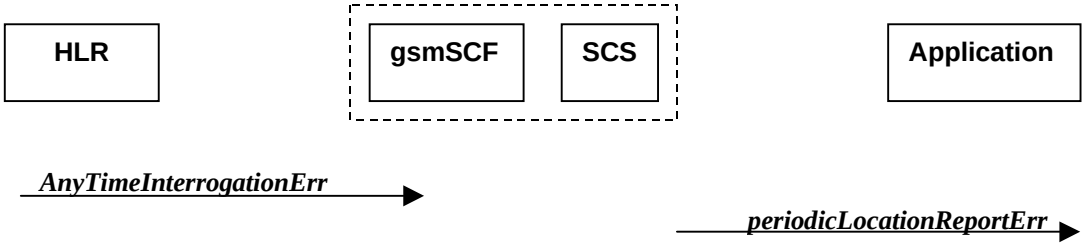

Figure 11-7: Call Flow for periodicLocationReportErr

Normal Operation

Pre-conditions	
1	The application invoked the ***periodicLocationReportingStartReq*** method

Parameter Mapping

From: MAP ***anyTimeInterrogationErr***	To: ***periodicLocationReportErr***
	assignmentID
SystemFailure **ATI-NotAllowed** **DataMissing** **UnexpectedDataValue** **UnknownSubscriber**	**cause**
	diagnostic
~~**gsmSCF-Address**~~	

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Document N5-000196
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

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29.998	CR	007	Current Version:	3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	CN#10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*	(U)SIM		ME		UTRAN / Radio		Core Network	X

Source: Nokia **Date:** 11 October 2000

Subject: Chapter numbering corrections

Work item: OSA

Category: *(only one category shall be marked with an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification	X		Release 99	X
				Release 00	

Reason for change: There are two chapters (6.1.4 and 6.1.6) missing from the document and two chapters with a duplicated chapter number (6.2.14)

Clauses affected: Contents, 6.1.4 – 6.1.10, (6.2.14), 6.2.15

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:


help.doc

<--------- double-click here for help and instructions on how to create a CR.

Contents

6.1.45 getCriteria

getCriteria is used by the application to query the event criteria set with ***enableCallNotification***.

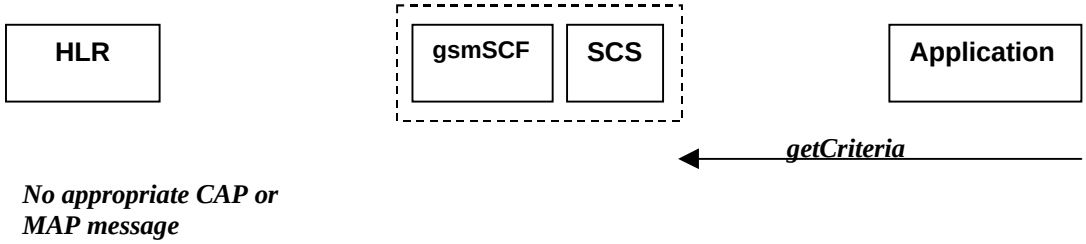

Figure 6-4: Call Flow for getCriteria

Normal Operation

Pre-conditions	Notifications have been enabled by the application.
1	The application invokes the ***getCriteria*** method
2	The SCS returns the criteria

Parameter Mapping

None.

6.1.57 callNotificationInterrupted

callNotificationInterrupted indicates to the application that all event notifications have been interrupted, for example due to faults detected.

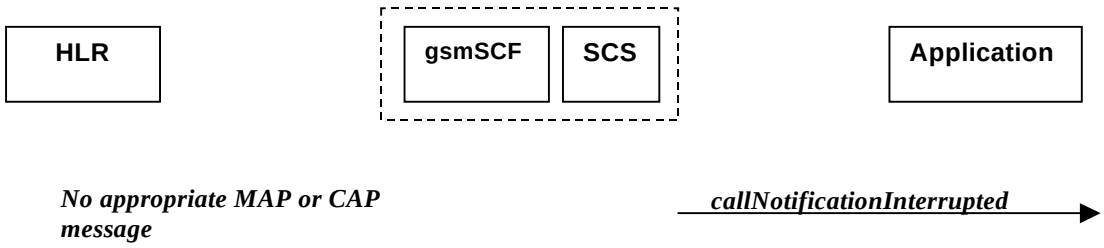

Figure 6-5: Call Flow for callNotificationInterrupted

Normal Operation

Pre-conditions	Call notifications have been enabled using the ***enableNotification*** method on the Call Manager interface
1	The SCS has detected, or has been informed of, a fault which prevents further events from being notified
2	The SCS invokes the ***callNotificationInterrupted*** method

Parameter Mapping

None.

6.1.68 callNotificationContinued

callNotificationContinued indicates to the application that all event notifications have been previously interrupted, have now started again.

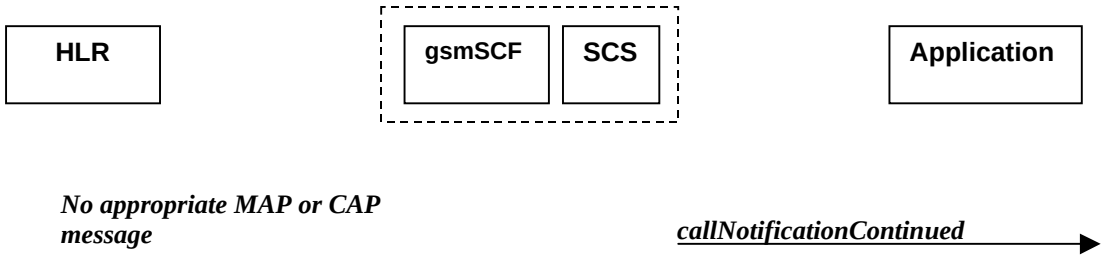

Figure 6-6: Call Flow for callNotificationContinued

Normal Operation

Pre-conditions	Call notifications have been interrupted and ***callNotificationInterrupted*** method has been invoked.
1	The SCS detects that call notifications are again possible.
2	The SCS invokes the ***callNotificationContinued*** method

Parameter Mapping

None.

6.1.79 callAborted

callAborted indicates to the application that the call object has aborted or terminated abnormally. No further communication will be possible between the call and the application.

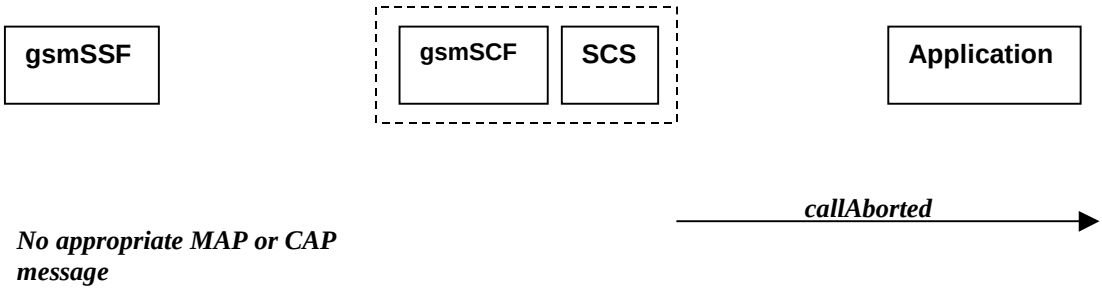

Figure 6-7: Call Flow for callAborted

Normal Operation

Pre-conditions	
1	The SCS detect a catastrophic failure in its communication with the gsmSCF
2	The SCS, invokes the ***callAborted*** method. The call running in the network may continue and will not have been affected by this failure between the gsmSCF and the SCS

Parameter Mapping

None.

6.1.8~~10~~ callEventNotify

callEventNotify notifies the application of the arrival of a call-related event.

Figure 6-8: Call Flow for callEventNotify

Normal Operation

Pre-conditions	Call notifications have been enabled using the ***enableCallNotification*** method on the Call Manager interface
1	A call arrives at the gsmSSF causing initial triggering to the gsmSCF CAP ***InitialDP***
2	The gsmSCF recognizes the need for an API service and passes the triggering information to the SCS
3	The SCS identifies the application responsible for handling the call and invokes the ***callEventNotify*** method

Parameter Mapping

From: **CAP InitialDP**	To: ***callEventNotify***
	callReference
	eventInfo (TpCallEventInfo) :
calledPartyNumber **calledPartyBCDNumber BCD**	**destinationAddress**
calling Party Number	**originatingAddress**
originalCalledPartyID	**originalDestinationAddress**
redirectingPartyID	**redirectingAddress**
	callAppInfo (TpCallAppInfoSet) :
	CallAppAlertingMechanism
	CallAppNetworkAccessType
	CallAppInterworkingIndicators
ext-BasicServiceCode (1st priority)	**CallAppBearerService** **CallAppTeleService**
highLayerCompatibility (2nd priority)	**CallAppTeleService**
bearerCapability (2nd priority)	**CallAppBearerService**
callingPartysCategory	**CallAppPartyCategory**

	CallAppPresentationAddress
	CallAppGenericInfo
additionalCallingPartyNumber	**CallAppAdditionalAddress**
eventTypeBCSM	**callEventName (Table 1)**
	callNotificationType
	assignmentID
	appInterface
serviceKey	<Note: mapped to the method invocation>
cGEncountered	
iPSSPCapabilities	
locationNumber	
redirectionInformation	
iMSI	
subscriberState	
locationInformation	
callReferenceNumber	
serviceInteractionIndicatorsTwo	
mscAddress	
timeAndTimezone	
gsm-ForwardingPending	
initialDPargExtension :	
naCarrierInformation	
gmscAddress	
cause	
cug-Index	
cug-Interlock	
cug-OutgoingAccess	

From: **CAP *InitialDP* parameter *eventTypeBCSM***	To: ***callEventNotify* parameter *callEventName* in *eventInfo***
<no mapping available>	P_EVENT_NAME_UNDEFINED
<no mapping available>	P_EVENT_GCCS_OFFHOOK_EVENT
collectedInfo, termAttemptAuthorized	P_EVENT_GCCS_ADDRESS_COLLECTED_EVENT

analyzedInformation	P_EVENT_GCCS_ADDRESS_ANALYSED_EVENT
tBusy	P_EVENT_GCCS_CALLED_PARTY_BUSY
tBusy[1]	P_EVENT_GCCS_CALLED_PARTY_UNREACHABLE
tNoAnswer	P_EVENT_GCCS_NO_ANSWER_FROM_CALLED_PARTY
routeSelectFailure	P_EVENT_GCCS_ROUTE_SELECT_FAILURE
<no mapping available>	P_EVENT_GCCS_ANSWER_FROM_CALL_PARTY

Table 1 : eventTypeBCSM mapping to callEventName

[1] Depending on the value of the *cause* parameter in the *initialDPArg extensions* parameter of the InitialDP operation

6.2.154 callEnded

callEnded will be invoked when the call has ended. Furthermore, the operation contains an indication on the reason why the call has been ended. Also the operation will always be invoked when the call has ended and not only when the application has requested its interest in this event.

Figure 6-23: Call Flow for callEnded

Normal Operation

Pre-conditions	There is an application monitoring the call in some way.
1	The gsmSSF detects a release from the calling or called party leg. CAP eventReportBCSM is sent if requested by the gsmSCF The BCSM event indicated may be either abandon or disconnect depending on the phase of the call.
2	The gsmSCF sends an equivalent message to the SCS
3	The SCS invokes the ***callEnded*** method.

Parameter Mapping

From: ***CAP EventReportBCSM***	To: ***callEnded***
	callSessionID
eventTypeBCSM	
	report
legID	**callLegSessionID**
eventSpecificInformationBCSM: **releaseCause**	**cause**
miscCallInfo	

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e.g. for 3GPP use the format TP-99xxx
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29.998	CR	009	Current Version:	3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	CN#10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [ ] UTRAN / Radio [ ] Core Network [X]

Source: Nokia **Date:** 11 October 2000

Subject: Timestamp in triggeredLocationInformation CSE SCS's local time

Work item: OSA

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:
Calculating the time stamp from the ageOfLocationInformation is useless since triggered location is reported online (i.e. at the same time of the location update). Local time, if necessary, could perhaps be calculated from the geographical information or from the VLR-number if the CSE knows the time zone where the VLR locates.

However, actually the timestamp in triggeredLocationReport is not relevant, hence it is proposed to be CSE's local time.

Clauses affected: 11.10

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:

help.doc

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11.10 triggeredLocationReport

triggeredLocationReport is a method providing the delivery of a report that is indicating that one or several user's mobile location has changed.

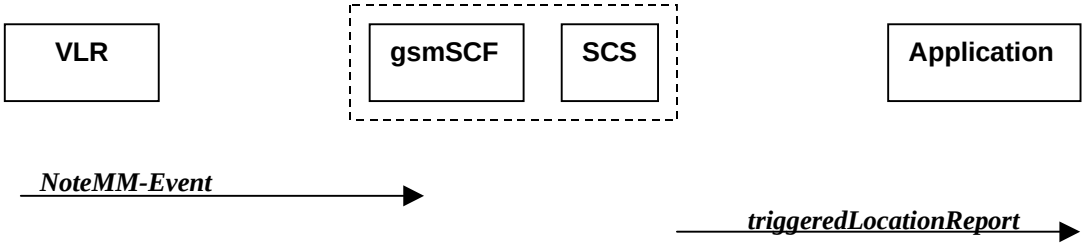

Figure 11-10: Call Flow for triggeredLocationReport

Normal Operation

Pre-conditions	
1	The application invoked the ***triggeredLocationReportingStartReq*** method

Parameter Mapping

From: MAP ***NoteMM-Event***	To: ***triggeredLocationReport***
	assignmentID
serviceKey	
imsi	
msisdn	
locationInformation	**location**
	UserID (from msisdn)
	StatusCode
geographicalInformation **geodeticInformation**	**GeographicalPosition**
ageOfLocationInformation	~~**Timestamp (calculated from ageOfLocationInfo)**~~
	Timestamp (CSE's local time)
vlr-number	**VlrNumber**
locationNumber	**LocationNumber**
cellGlobalIdorServiceAreaIdOrLai	**CellidOrLai**
extensionContainer	
selectedLSA-Id	
msc-Number	
currentLocationRetrieved	

eventMet	criterion

N5-000230
Rev of N5-000197

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CHANGE REQUEST

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29.998	CR	008	Current Version:	3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	CN#10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*	(U)SIM		ME		UTRAN / Radio		Core Network	X

Source: Nokia **Date:** 11 October 2000

Subject: TriggeredLocationReportErr mapping from a failed AnyTimeModification

Work item: OSA

Category: *(only one category shall be marked with an X)*

F	Correction	X
A	Corresponds to a correction in an earlier release	
B	Addition of feature	
C	Functional modification of feature	
D	Editorial modification	

Release:

Phase 2	
Release 96	
Release 97	
Release 98	
Release 99	X
Release 00	

Reason for change:

Such "NoteMM-EventErr" error that is mentioned in chapter 11.11 does not exist. If the triggering of MM notification fails in the VLR, the failure is not reported to the gsmSCF.

TriggeredLocationReportErr could be mapped from unsuccesful AnyTimeModification (ATM negative response, HLR->gsmSCF) after triggeredLocationReportingStartReq method. This makes the behaviour a little different, however.

Clauses affected: 11.11

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:

help.doc

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11.11 triggeredLocationReportErr

triggeredLocationReportErr is a method indicatinges that a requested ***triggeredL ~~l~~ocation ~~r~~Reportingstartreq*** has failed. ~~Note that errors only concerning individual users are reported in the ordinary ***triggeredLocationReport*** message.~~

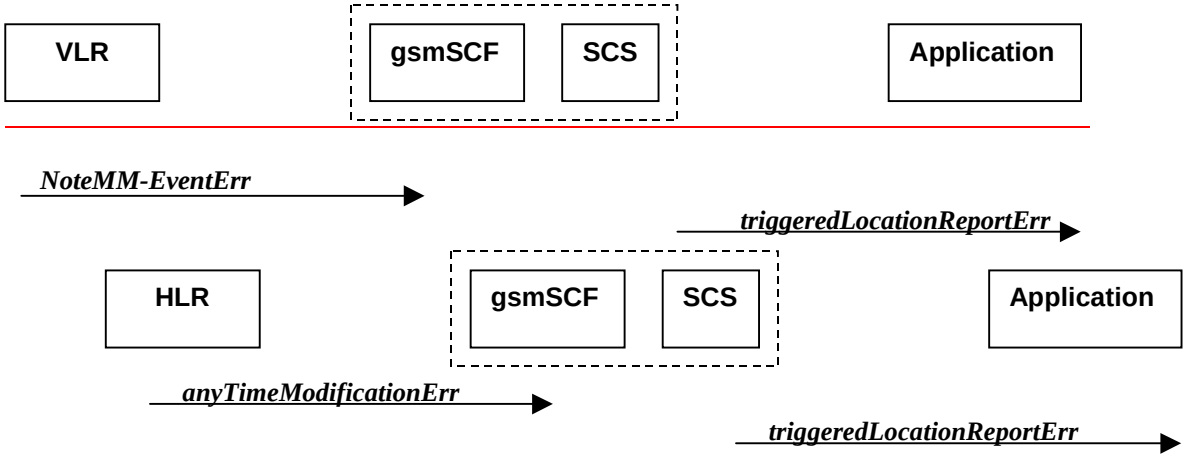

Figure 11-11: Call Flow for triggeredLocationReportErr

Normal Operation

Pre-conditions	The Application has previously invoked the ***triggeredLocationReportingStartReq*** method, causing the gsmSCF to send a MAP ***anyTimeModificationReq*** to the HLR
1	The HLR sends a negative response ***anyTimeModificationErr*** to the gsmSCF~~CSE~~/SCS.~~The application invoked the ***triggeredLocationReportingStartReq*** method~~
2	The SCS sends ***triggeredLocationReportErr*** to the Application.~~The gsmSCF sends a MAP ***AnyTimeModificationReq*** to the HLR~~

Parameter Mapping

From: MAP ***anyTimeModificationErr~~NoteMM-EventErr~~***	To: ***triggeredLocationReportErr***
	assignmentID
~~**dataMissing**~~ ~~**unexpectedDataValue**~~ ~~**unknownSubscriber**~~ ~~**MM-EventNotSupported**~~ **Any Time Modification Not Allowed** **Data Missing** **Unexpected Data Value** **Unknown Subscriber** **Bearer service not provisioned** **Teleservice not provisioned**	**cause**

Call Barred **Illegal SS operation** **SS error status** **SS incompatibility** **SS subscription violation** **Information Not Available**	
	diagnostic

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Sophia Antipolis, France, 7-8 November 2000

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CHANGE REQUEST

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29.998	CR	010	Current Version:	3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	CN#10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [ ] UTRAN / Radio [ ] Core Network [X]

Source: Nokia, Lucent Technologies **Date:** 19 October 2000

Subject: Corrections to the scope in order to allow HLR/SCS configuration in addition to SCS/CSE.

Work item: OSA

Category: *(only one category shall be marked with an X)*

F	Correction	[X]	**Release:**	Phase 2	[ ]
A	Corresponds to a correction in an earlier release	[ ]		Release 96	[ ]
B	Addition of feature	[ ]		Release 97	[ ]
C	Functional modification of feature	[ ]		Release 98	[ ]
D	Editorial modification	[ ]		Release 99	[X]
				Release 00	[ ]

Reason for change: The scope (section 1) was limited to mappings for the SCS/CSE only, whereas the technical report actually contained mappings for the SCS/HLR configuration as well (in particular section 10).

Clauses affected: 1

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:


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1 Scope

The present document investigates how the OSA Interface Class methods can be mapped onto CAMEL Application Part operations and MAP Application Part operations. The mapping of the OSA API to the CAP and relevant MAP operations is considered informative, and not normative.

The Open Service Architecture (OSA) defines an architecture that enables operator and third party applications to make use of network functionality through an open standardized interface (the OSA Interface). OSA provides the glue between applications and service capabilities provided by the network. In this way applications become independent from the underlying network technology. The applications constitute the top level of the Open Service Architecture (OSA). This level is connected to the Service Capability Servers (SCSs) via the OSA interface. The SCSs map the OSA interface onto the underlying telecommunications specific protocols (e.g. MAP, CAP, etc.) and are therefore hiding the network complexity from the applications.

The specific Service Capability Server under consideration in this technical report is the CSE. In this case, the OSA API provides the operator or third party applications access to the CAMEL Application Part protocol operations, via the OSA Interface Class methods. On the gsmSCF, the OSA Interface Class methods need to be mapped, or translated, onto the relevant CAP and/or MAP operations. Only the non-framework Service Capability Features will be taken into account for the mapping. This document is not exhaustive in covering all the mappings that can be expected. It provides several examples, but it should be noted that several other possibilities exist. In particular, only general cases of normal operations are covered and exception scenarios are not within the scope of the document.

In addition to the configuration of SCS and CSE, this technical report contains some recommendations for a configuration consisting of SCS and HLR. On the HLR, the OSA Interface Class methods need to be mapped, or translated, onto the relevant MAP protocol operations. The mappings contained in this technical report for the SCS/HLR case are not intended to be exhaustive.

The OSA API to CAP and MAP mapping is part of Release99.