Technical Specification Group Services and System Aspects Meeting #18, New Orleans, USA, 9-12 December 2002

TSGS#18(02)0751

Source: **SA5 (Telecom Management)**

Title: **6 Rel-4/5 CR 32.111-2/3/4 (Alarm IRP: Information Service/CORBA & CMIP SSs) : Add additionalInformation parameter in notification**

Document for: **Approval**

Agenda Item: **7.5.3**

Doc-1st-	Spec	CR	Rev	Phase	Subject	Cat	Version-	Doc-2nd-	Workitem	Remarks
SP-020751	32.111-2	019	-	Rel-4	Add additionalInformation parameter in notification in Alarm IRP: IS	F	4.4.0	S5-027008	OAM-FM	**Parent CR.**
SP-020751	32.111-2	020	-	Rel-5	Add additionalInformation parameter in notification in Alarm IRP: IS	A	5.1.0	S5-027006	OAM-NIM	
SP-020751	32.111-3	022	-	Rel-4	Add additionalInformation parameter in notification in Alarm IRP: CORBA SS (Alignment with Information Service in Rel-4 32111-2)	F	4.4.0	S5-027009	OAM-FM	**Child CR.**
SP-020751	32.111-3	023	-	Rel-5	Add additionalInformation parameter in notification in Alarm IRP: CORBA SS (Alignment with Information Service in Rel-5 32111-2)	A	5.1.0	S5-026977	OAM-NIM	
SP-020751	32.111-4	012	-	Rel-4	Add the additionalInformation parameter in notifyNewAlarms to the Alarm IRP CMIP SS (Alignment with Information Service in Rel-4 32111-2)	F	4.3.0	S5-027026	OAM-FM	**Child CR**
SP-020751	32.111-4	013	-	Rel-5	Add the additionalInformation parameter in notifyNewAlarms to the Alarm IRP CMIP SS (Alignment with Information Service in Rel-5 32111-2)	A	5.2.0	S5-027025	OAM-NIM	

3GPP TSG-SA5 (Telecom Management) **S5-027008**
Meeting #32, Vienna, Austria, 18-22 November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **32.111-2** **CR** **019** ⌘**rev** **-** ⌘ Current version: **4.4.0** ⌘

*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:	⌘	Add additionalInformation parameter in notification in Alarm IRP: IS
Source:	⌘	SA5
Work item code:	⌘	OAM-FM
Date:	⌘	22/11/2002
Category:	⌘	**F**
Release:	⌘	REL-4

Use one 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 one 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:	⌘	Add additionalInformation parameter in notifications
Summary of change:	⌘	Add an optional input parameter in notifications
Consequences if not approved:	⌘	The notifications cannot carry the additionalInformation.

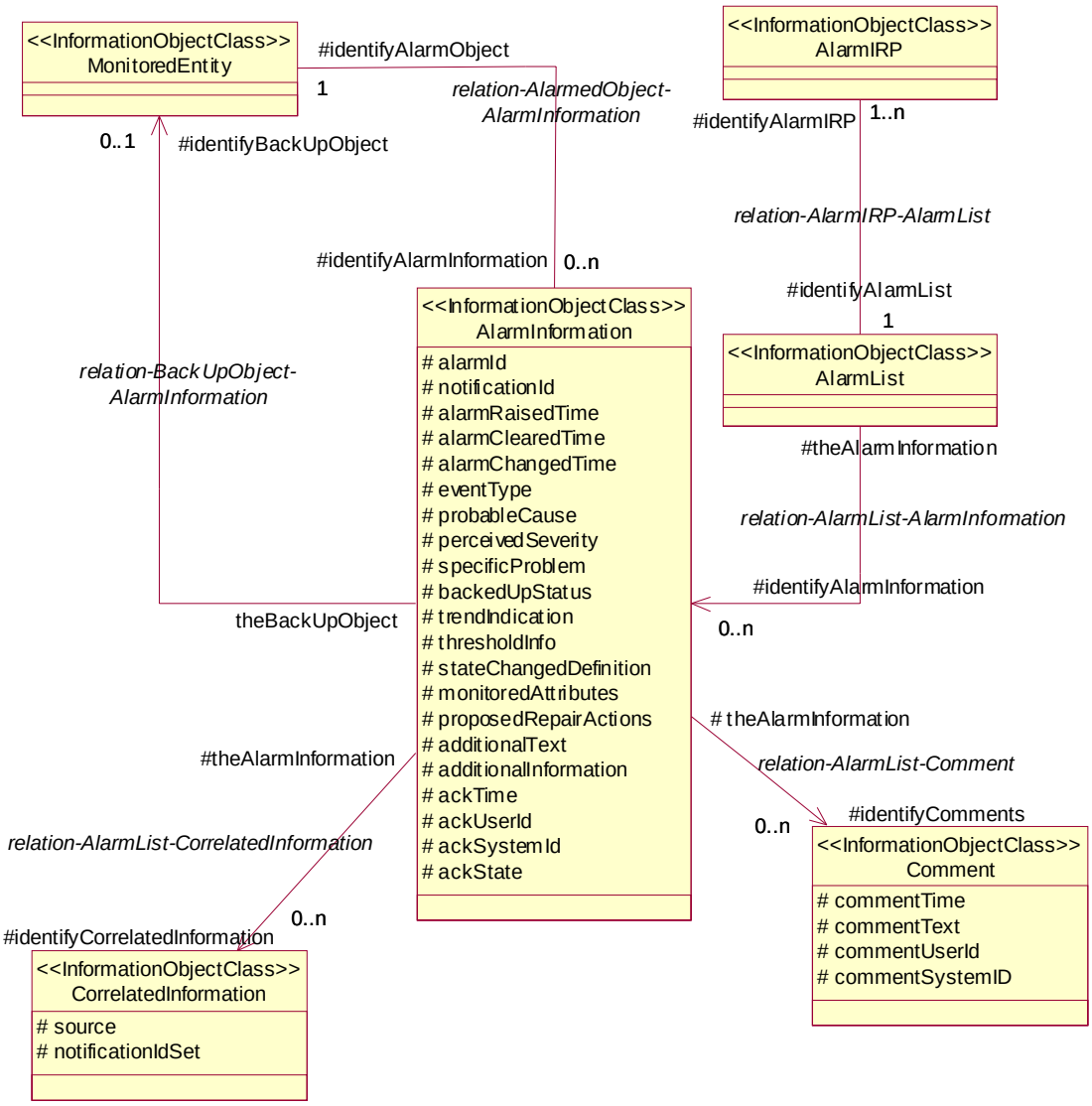
Clauses affected:	⌘	sub-clause 5.2.1, 5.3.1.2, 5.5.1, 6.7.1.2, 6.7.1.3.2,

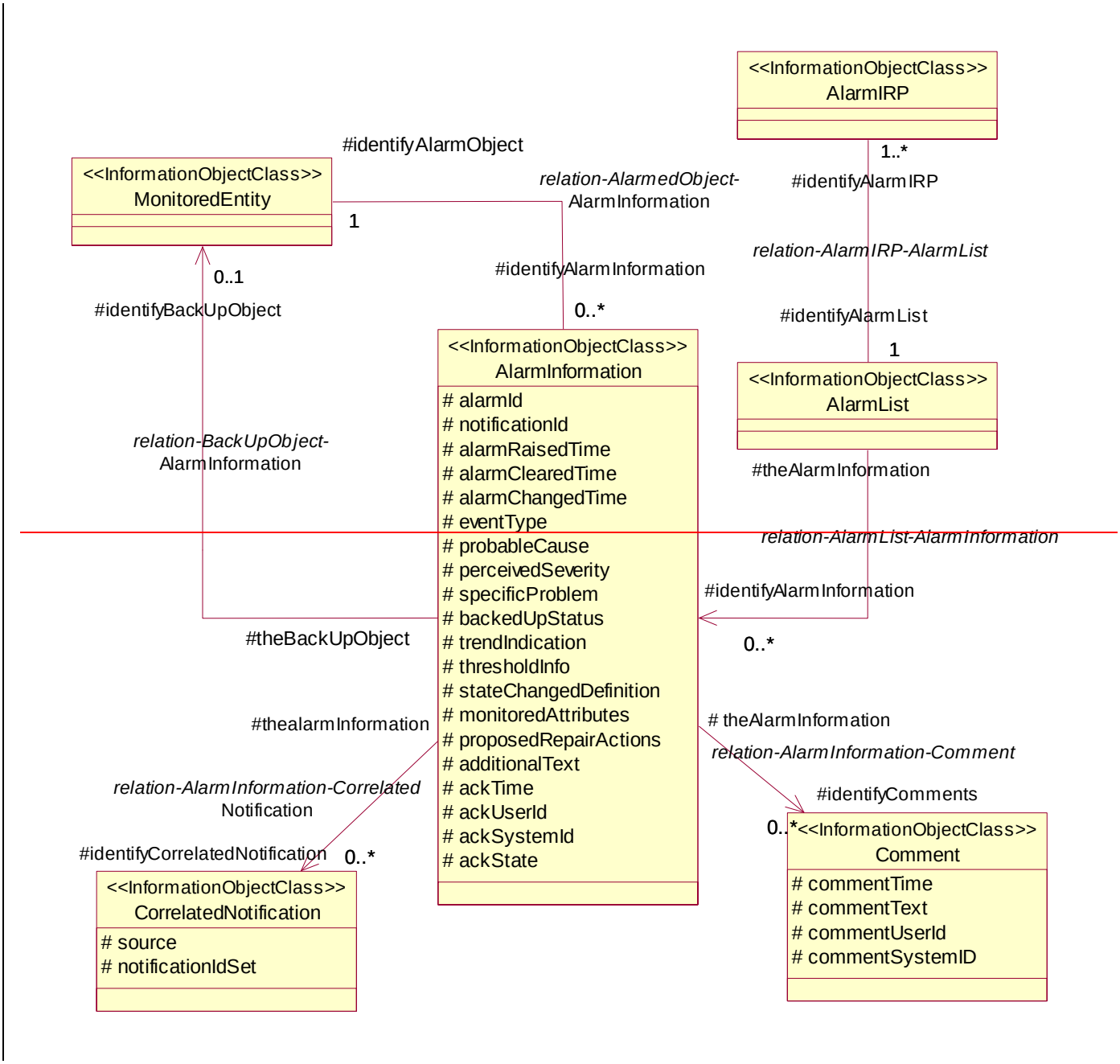
	Y	N		
Other specs affected: ⌘		X	Other core specifications	⌘
		X	Test specifications	
	X		O&M Specifications	Rel-4/5 32.111-3/5

Other comments:	⌘	Rel-4 Parent CR to 32111-3CR022& 32111-4CR012. Rel-5 Mirror in 32111-2CR020.

Change in Clause 5.2.1

5.2.1 Attributes and relationships




<<InformationObjectClass>>
AlarmIRP
1..*
#identifyAlarmIRP
relation-AlarmIRP-AlarmList
#identifyAlarmList
1
<<InformationObjectClass>>
AlarmList
#theAlarmInformation
#identifyAlarmObject
<<InformationObjectClass>>
MonitoredEntity
relation-AlarmedObject-
AlarmInformation
1
0..1
#identifyBackUpObject
#identifyAlarmInformation
0..*
<<InformationObjectClass>>
AlarmInformation
alarmId
notificationId
alarmRaisedTime
alarmClearedTime
alarmChangedTime
eventType
probableCause
perceivedSeverity
specificProblem
backedUpStatus
trendIndication
thresholdInfo
stateChangedDefinition
monitoredAttributes
proposedRepairActions
additionalText
ackTime
ackUserId
ackSystemId
ackState
relation-BackUpObject-
AlarmInformation
relation-AlarmList-AlarmInformation
#identifyAlarmInformation
0..*
#theBackUpObject
#thealarmInformation
theAlarmInformation
relation-AlarmInformation-Comment
relation-AlarmInformation-Correlated
Notification
#identifyComments
0..*
<<InformationObjectClass>>
Comment
commentTime
commentText
commentUserId
commentSystemID
#identifyCorrelatedNotification
0..*
<<InformationObjectClass>>
CorrelatedNotification
source
notificationIdSet

End of Change in Clause 5.2.1

Change in Clause 5.3.1.2

5.3.1.2 Attribute

Attribute name	Support Qualifier
alarmId	M
notificationId (note 1)	M
alarmRaisedTime	M
alarmClearedTime	M
alarmChangedTime	O
eventType	M
probableCause	M
perceivedSeverity	M
specificProblem	O
backedUpStatus	O
trendIndication	O
thresholdInfo	O
stateChangedDefinition	O
monitoredAttributes	O
proposedRepairActions	O
additionalText	O
additionalInformation	O
ackTime	M
ackUserId	M
ackSystemId	O
ackState	M

End of Change in Clause 5.3.1.2

Change in Clause 5.5.1

5.5.1 Definition and legal values

Name	Definition	Legal Values
~~alarmId~~alarmId	It identifies one AlarmInformation in the AlarmList.	
notification-Id	It identifies the notification that carries the AlarmInformation.	
alarmRaised-Time	It indicates the date and time when the alarm is first raised by the alarmed resource.	All values indicating valid time.
alarmChanged-Time	It indicates the last date and time when the AlarmInformation is changed by the alarmed resource. Changes to AlarmInformation caused by invocations of the IRPManager would not change this date and time.	All values indicating valid time.
alarmCleared-Time	It indicates the date and time when the alarm is Cleared.	All values indicating valid time.
eventType	It indicates the type of event. See Annex A for information on event type.	See Annex A.
probableCause	It qualifies alarm and provides further information than eventType. See Annex B for a complete listing.	See Annex B.
perceived-Severity	It indicates the relative level of urgency for operator attention.	Critical, Major, Minor, Warning, Indeterminate, Cleared: see ITU-T Recommendation X.733 [2]. This IRP does not recommend the use of indeterminate.
specific-Problem	It provides further qualification on the alarm than probableCause. This attribute value shall be single-value and of simple type such as integer or string. See definition in ITU-T Recommendation X.733 [2] clause 8.1.2.2.	Provided by vendor.
backedUp Status	It indicates if an object (the MonitoredEntity) has a back up. See definition in ITU-T Recommendation X.733 [2] clause 8.1.2.4.	All values that carry the semantics of backedUpStatus defined by ITU-T X.733 [2] clause 8.1.2.4.
trend-Indication	It indicates if some observed condition is getting better, worse, or not changing.	"Less severe", "no change", "more severe": see definition in ITU-T Recommendation X.733 [2] clause 8.1.2.6.
thresholdInfo	It indicates the direction of threshold crossing.	See definitions in ITU-T Recommendation X.733 [2] clause 8.1.2.7.
stateChange Definition	It indicates MO attribute value changes. See definition in ITU-T Recommendation X.733 [2] clause 8.1.2.10.	
monitored-Attributes	It indicates MO attributes whose value changes are being monitored. See definition in ITU-T Recommendation X.733 [2] clause 8.1.2.11.	
proposed RepairActions	It indicates proposed repair actions. See definition in ITU-T Recommendation X.733 [2] clause 8.1.2.12.	
additional-Text	It carries semantics that is outside the scope of this IRP specification. It may provide the identity of the NE (e.g. RNC, Node-B) from which the alarm has been originated. It corresponds to the "user label" attribute of the object class representing the NE in the Generic Network Resource Model [10]. It can contain further information on the alarm.	N/A
additionalInformation	It contains information on the alarm and its semantics is outside the scope of this IRP.	N/A
ackTime	It identifies the time of last operation acknowledgeAlarms or unacknowledgeAlarms.	All values that indicate valid times and ~~that~~ are later than that carried in

Name	Definition	Legal Values
		alarmRaisedTime.

End of Change in Clause 5.5.1

Change in Clause 6.7.1.2

6.7.1.2 Input Parameters

Parameter Name	Qualifier	Matching Information	Comment
objectClass	M,F	MonitoredEntity.objectClass where the MonitoredEntity is identified by the relation-AlarmedObject-AlarmInformation of the new AlarmInformation.	
objectInstance	M,F	MonitoredEntity.objectInstance where the MonitoredEntity is identified by the relation-AlarmedObject-AlarmInformation of the new AlarmInformation.	
notificationId	M	This carries the semantics of notification identifier.	
eventTime	M,F	AlarmInformation.alarmRaisedTime	
systemDN	C,F	IRPAgent.systemDN where the IRPAgent is related to the AlarmIRP that is related to this AlarmList.	It carries the DN of the IRPAgent.
notificationType	M,F	"notifyNewAlarm".	
probableCause	M,F	AlarmInformation.probableCause	
perceivedSeverity	M,F	AlarmInformation.perceivedSeverity	
alarmType	M, F	AlarmInformation.eventType	
specificProblem	O	AlarmInformation.specificProblem	
correlatedNotifications	O	The set of CorrelatedNotification related to this AlarmInformation.	
backedUpStatus	O	AlarmInformation.backedUpStatus	
backUpObject	O	MonitoredEntity.objectInstance where the MonitoredEntity is identified by relation-BackUpObject-AlarmInformation of the new AlarmInformation.	It carries the DN of the back up object.
trendIndication	O	AlarmInformation.trendIndication	
thresholdInfo	O	AlarmInformation.thresholdInfo	
stateChangeDefinition	O	AlarmInformation.stateChange	
monitoredAttributes	O	AlarmInformation.monitoredAttributes	
proposedRepairActions	O	AlarmInformaton.proposedRepairActions	
additionalText	O	AlarmInformation.additionalText	
additionalInformation	O	AlarmInformation.additionalInformation	
~~alarmed~~alarmId	M	AlarmInformation.alarmId	

End of Change in Clause 6.7.1.2

Change in Clause 6.7.1.3.2

6.7.1.3.2 To-state

`newAlarmInAlarmList.`

Assertion Name	Definition
newAlarmInAlarmList	AlarmList contains an AlarmInformation holding information conveyed by the newly generated network alarm. This AlarmInformation is involved in relation-AlarmObject-AlarmInformation with the same MonitoredEntity as the one identified by the newly generated network alarm. The following attributes of the AlarmInformation shall be populated with information in the newly generated alarm. alarmId, notificationId, alarmRaisedTime, eventType, probableCause, perceivedSeverity. The following attributes of the same AlarmInformation shall be populated with information in the newly generated alarm if the information is present (in the newly generated alarm) and if the attribute is supported: specificProblem, backedUpStatus, trendIndication, thresholdInfo, stateChangedDefinition, monitoredAttributes, proposedRepairActions, additionalText, additionalInformation.

End of Change in Clause 6.7.1.3.2

3GPP TSG-SA5 (Telecom Management) **S5-027025**
Meeting #32, Vienna, Austria, 18-22 November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **32.111-4** **CR** **013** ⌘**rev** **-** ⌘ Current version: **5.2.0** ⌘

*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 [X] Core Network [X]

Title:	⌘	Add the additionalInformation parameter in notifyNewAlarms to the Alarm IRP CMIP SS (Alignment with Information Service in Rel-5 32111-2)
Source:	⌘	SA5
Work item code:	⌘	OAM-NIM
Date:	⌘	22/11/2002
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one 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 one 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 Alarm IRP: IS provides support for the additionalInformation parameter in notifyNewAlarms. The CMIP SS has to be aligned with respect to this functionality
Summary of change:	⌘	The mapping table for the notification notifyNewAlarms is updated
Consequences if not approved:	⌘	The CMIP SS of the Alarm IRP is not aligned with the Alarm IRP: IS with respect to the additionalInformation parameter.

Clauses affected:	⌘	4.2.5			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘	Parent Rel-5 CR in 32111-2CR020. Mirror Rel-5 CR of 32111-4CR012.			

Change in Clause 4.2.5

4.2.5 Mapping of Parameters of each notification

In the CMIP Solution Set, all the notifications originated within the Agent are reported to the Managers by means of the CMISE "M-EVENT-REPORT" primitive, which is implemented by means of the "m-EventReport OPERATION" (see [2] and[3]). The argument of m-EventReport OPERATION is defined in [3] as follows:

```
EventReportArgument         ::= SEQUENCE {
        managedObjectClass          ObjectClass,
        managedObjectInstance       ObjectInstance,
        eventTime                   [5] IMPLICIT GeneralizedTime OPTIONAL,
        eventType                   EventTypeId,
        eventInfo                   [8] ANY DEFINED BY eventType OPTIONAL
        }
```

where eventInfo is further specified, for each specific notification, by means of specific GDMO/ASN.1 definitions.

In the following tables, for the notifications defined in [9], all parameters are mapped to their CMIP SS equivalents. Note that the parameter mapping for the notification notifyChangedAlarm is not given. This is because in the CMIP SS the notifications notifyClearedAlarm and notifyNewAlarm are emitted instead of the notification notifyChangedAlarm,.

The IS parameter systemDN defined in [9] (Alarm IRP: Information Services) is conditional and not used in the CMIP SS.

Except for the notification *notifyComments* the IS parameter *alarmType* has no direct CMIP SS equivalent. Instead the value of this parameter is reflected by the type of the emitted notification. More specifically

- If the event type is equal to ‘Communication Alarm’ the notification *communicationsAlarm* is emitted;
- If the event type is equal to ‘Processing Error Alarm’ the notification *processingErrorAlarm* is emitted;
- If the event type is equal to ‘Environmental Alarm’ the notification *environmentalAlarm* is emitted;
- If the event type is equal to ‘Quality of Service Alarm’ the notification *qualityofServiceAlarm* is emitted;
- If the event type is equal to ‘Equipment Alarm’ the notification *equipmentAlarm* is emitted.

Also the IS parameter *alarmId* is not mapped directly to a parameter in the CMIP SS. This is not required because an alarm is identified unambiguously by the notification identifier of the notification reporting the alarm the first time and, if the notification identifier is not unique across the IRPAgent, by the instance of the managed object emitting this notification. Notifications referring to an alarm already reported (e. g. *notifyClearedAlarm*, *notifyAckStateChanged*, *notifyComments*) do so by specifying in the M-EVENT REPORT parameter ‘Event information’: *correlatedNotifications* (X.721 [4] and X.733 [5]) the notification identifier of the notification having reported the new alarm and, if required, the instance of the object having emitted this notification.

Most parameters are mapped to the M-EVENT report parameter ‘Event information’. The syntax and semantics of this structured parameter are defined in ITU-T X.721 [4] by the ASN.1 definition *AlarmInfo*.

Table 12: Mapping of Parameters of "notifyNewAlarm"

IS Parameter	CMIP SS Equivalent	Qualifier
objectclass	M-EVENT REPORT parameter 'Managed object class'	M
objectInstance	M-EVENT REPORT parameter 'Managed object instance'	M
notificationId	M-EVENT REPORT parameter 'Event information' (AlarmInfo): notificationIdentifier	M
eventTime	M-EVENT REPORT parameter 'Event time'	M
systemDN	This IS parameter is conditional and not used in the CMIP SS.	--
notificationType	M-EVENT REPORT parameter 'Event type'	M
probableCause	M-EVENT REPORT parameter 'Event information' (AlarmInfo): probableCause	M
specificProblems	M-EVENT REPORT parameter 'Event information' (AlarmInfo): specificProblems	O
perceivedSeverity	M-EVENT REPORT parameter 'Event information' (AlarmInfo): perceivedSeverity	M
alarmType	The semantics of this parameter is conveyed by the notification type.	--
backedUpStatus	M-EVENT REPORT parameter 'Event information' (AlarmInfo): backedUpStatus	O
backUpObject	M-EVENT REPORT parameter 'Event information' (AlarmInfo): backUpObject	O
trendIndication	M-EVENT REPORT parameter 'Event information' (AlarmInfo): trendIndication	O
thresholdInfo	M-EVENT REPORT parameter 'Event information' (AlarmInfo): thresholdInfo	O
correlatedNotifications	M-EVENT REPORT parameter 'Event information' (AlarmInfo): correlatedNotifications	O
stateChangeDefinition	M-EVENT REPORT parameter 'Event information' (AlarmInfo): stateChangeDefinition	O
monitoredAttributes	M-EVENT REPORT parameter 'Event information' (AlarmInfo): monitoredAttributes	O
proposedRepairActions	M-EVENT REPORT parameter 'Event information' (AlarmInfo): proposedRepairActions	O
additionalText	M-EVENT REPORT parameter 'Event information' (AlarmInfo): additionalText	O
additionalInformation	M-EVENT-REPORT parameter 'Event information' (AlarmInfo): additionalInformation	O
alarmId	M-EVENT REPORT parameter 'Event information' (AlarmInfo): notificationIdentifier M-EVENT REPORT parameter 'Managed object instance'	M

End of Change in Clause 4.2.5

3GPP TSG-SA5 (Telecom Management) **S5-027026**
Meeting #32, Vienna, Austria, 18-22 November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **32.111-4** **CR** **012** ⌘**rev** **-** ⌘ Current version: **4.3.0** ⌘

*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 [X] Core Network [X]

Title:	⌘	Add the additionalInformation parameter in notifyNewAlarms to the Alarm IRP CMIP SS (Alignment with Information Service in Rel-4 32111-2)
Source:	⌘	SA5
Work item code:	⌘	OAM-FM
Date:	⌘	22/11/2002
Category:	⌘	**F**
Release:	⌘	Rel-4

Use one 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 one 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 Alarm IRP: IS provides support for the additionalInformation parameter in notifyNewAlarms. The CMIP SS has to be aligned with respect to this functionality
Summary of change:	⌘	The mapping table for the notification notifyNewAlarms is updated
Consequences if not approved:	⌘	The CMIP SS of the Alarm IRP is not aligned with the Alarm IRP: IS with respect to the additionalInformation parameter.

Clauses affected:	⌘	4.2.5			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
		X		O&M Specifications	Rel-5 32111-4
Other comments:	⌘	Parent Rel-4 CR in 32111-2CR019. Mirror Rel-5 CR in 32111-4CR013.			

Change in Clause 4.7.5

4.7.5 Mapping of Parameters of each notification

In the CMIP Solution Set, all the notifications originated within the Agent are reported to the Managers by means of the CMISE "M-EVENT-REPORT" primitive, which is implemented by means of the "m-EventReport OPERATION" (see [2] and[3]). The argument of m-EventReport OPERATION is defined in [3] as follows:

```
EventReportArgument         ::= SEQUENCE {
        managedObjectClass          ObjectClass,
        managedObjectInstance       ObjectInstance,
        eventTime                   [5] IMPLICIT GeneralizedTime OPTIONAL,
        eventType                   EventTypeId,
        eventInfo                   [8] ANY DEFINED BY eventType OPTIONAL
        }
```

where eventInfo is further specified, for each specific notification, by means of specific GDMO/ASN1 definitions.

In the following tables, for the notifications defined in [9], all parameters are mapped to their CMIP SS equivalents. Note that the parameter mapping for the notification notifyChangedAlarm is not given. This is because in the CMIP SS the notifications notifyClearedAlarm and notifyNewAlarm are emitted instead of the notification notifyChangedAlarm.

The IS parameter systemDN defined in [9] (Alarm IRP: Information Services) is conditional and not used in the CMIP SS.

Except for the notification notifyComments the IS parameter alarmType has no direct CMIP SS equivalent. Instead the value of this parameter is reflected by the type of the emitted notification. More specifically:

- If the event type is equal to ‘Communication Alarm’ the notification communicationsAlarm is emitted;
- If the event type is equal to ‘Processing Error Alarm’ the notification processingErrorAlarm is emitted;
- If the event type is equal to ‘Environmental Alarm’ the notification environmentalAlarm is emitted;
- If the event type is equal to ‘Quality of Service Alarm’ the notification qualityofServiceAlarm is emitted;
- If the event type is equal to ‘Equipment Alarm’ the notification equipmentAlarm is emitted.

Also the IS parameter alarmId is not mapped directly to a parameter in the CMIP SS. This is not required because an alarm is identified unambiguously by the notification identifier of the notification reporting the alarm the first time and the instance of the managed object emitting this notification. Notifications referring to an alarm already reported (e. g. notifyClearedAlarm, notifyAckStateChanged, notifyComments) do so by specifying in the M-EVENT REPORT parameter ‘Event information’: correlatedNotifications (X.721 [4] and X.733 [5]) the notification identifier of the notification having reported the new alarm and, if required, the instance of the object having emitted this notification.

Table 11: Mapping of Parameters of "notifyNewAlarm"

IS Parameter Name	CMIP SS Equivalent	Qualifier
objectclass	M-EVENT REPORT parameter 'Managed object class'	M
objectInstance	M-EVENT REPORT parameter 'Managed object instance'	M
notificationId	M-EVENT REPORT parameter 'Event information': notificationIdentifier	M
eventTime	M-EVENT REPORT parameter 'Event time'	M
systemDN	--	--
notificationType	M-EVENT REPORT parameter 'Event type'	M
probableCause	M-EVENT REPORT parameter 'Event information': probableCause	M
specificProblems	M-EVENT REPORT parameter 'Event information': specificProblems	O
perceivedSeverity	M-EVENT REPORT parameter 'Event information': perceivedSeverity	M
alarmType	The semantics of this parameter is conveyed by the notification type.	--
backedUpStatus	M-EVENT REPORT parameter 'Event information': backedUpStatus	O
backUpObject	M-EVENT REPORT parameter 'Event information': backUpObject	O
trendIndication	M-EVENT REPORT parameter 'Event information': trendIndication	O
thresholdInfo	M-EVENT REPORT parameter 'Event information': thresholdInfo	O
correlatedNotifications	M-EVENT REPORT parameter 'Event information': correlatedNotifications	O
stateChangeDefinition	M-EVENT REPORT parameter 'Event information': stateChangeDefinition	O
monitoredAttributes	M-EVENT REPORT parameter 'Event information': monitoredAttributes	O
proposedRepairActions	M-EVENT REPORT parameter 'Event information': proposedRepairActions	O
additionalText	M-EVENT REPORT parameter 'Event information': additionalText	O
additionalInformation	M-EVENT-REPORT parameter 'Event information' (AlarmInfo): additionalInformation	O
alarmId	--	--

End of Change in Clause 4.7.5

3GPP TSG-SA5 (Telecom Management) **S5-026977**
Meeting #32, Vienna, Austria, 18-22 November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **32.111-3** **CR** **023** ⌘**rev** **-** ⌘ Current version: **5.1.0** ⌘

*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: ⌘	Add additionalInformation parameter in notification in Alarm IRP: CORBA SS (Alignment with Information Service in Rel-5 32111-2)	
Source: ⌘	SA5	
Work item code: ⌘	OAM-NIM	***Date:*** ⌘ 22/11/2002
Category: ⌘	**A**	***Release:*** ⌘ REL-5

Use one 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 one 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: ⌘	Add additionalInformation parameter in notifications
Summary of change: ⌘	Add new mapping information in notification mapping table regarding the additionalInformation parameter.
Consequences if not approved: ⌘	The notifications cannot carry the additionalInformation.

Clauses affected: ⌘	Table 10.

Other specs affected: ⌘

Y	N	
	X	Other core specifications
	X	Test specifications
	X	O&M Specifications

⌘

Other comments: ⌘	Child Rel-5 CR of 32111-2CR020. Rel-5 Mirror of 32111-3CR022.

Change in Table 10

Table 10: Mapping for `notifyNewAlarm` (to carry non-security-related alarms)

IS Parameters	OMG CORBA Structured Event attribute	Qualifier	Comment
There is no corresponding SS attribute.	domain_name		It carries the IRP document version number string. See sub-clause 3.3. It indicates the syntax and semantics of the Structured Event as defined by this specification.
notificationType	type_name	M	This is the NOTIFY_FM_NEW_ALARM of interface NotificationType of module AlarmIRPConstDefs.
alarmType	event_name	M	It identifies one of the following: communications alarm, processing error alarm, environmental alarm, quality of service alarm and equipment alarm. It is a string defined by interface AlarmType of module AlarmIRPConstDefs.
There is no corresponding SS attribute.	variable Header		
objectClass, objectInstance	One NV pair of filterable_ body_fields	M	NV stands for name-value pair. Order arrangement of NV pairs is not significant. The name of NV-pair is always encoded in string. Name of NV pair is the MANAGED_OBJECT_INSTANCE of interface AttributeNameValue of module NotificationIRPConstDefs. Value of NV pair is a string.
notification-Id	One NV pair of filterable_ body_fields	M	Name of NV pair is the NOTIFICATION_ID of interface AttributeNameValue of module NotificationIRPConstDefs. Value of NV pair is a long.
eventTime	One NV pair of filterable_ body_fields	M	Name of NV pair is the EVENT_TIME of interface AttributeNameValue of module NotificationIRPConstDefs. Value of NV pair is a IRPTime of module ManagedGenericIRPConstDefs.
systemDN	One NV pair of filterable_ body_fields	M	Name of NV pair is the SYSTEM_DN of interface AttributeNameValue of module NotificationIRPConstDefs. Value of NV pair is a string.
probableCause	One NV pair of filterable_ body_fields	M	Name of NV pair is the PROBABLE_CAUSE of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a short defined by interface ProbableCause of module AlarmIRPConstDefs.
perceivedSeverity	One NV pair of filterable_ body_fields	M	Name of NV pair is the PERCEIVED_SEVERITY of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a short defined by interface PerceivedSeverity of module AlarmIRPConstDefs.
specificProblem	One NV pair of filterable_ body_fields	O	Name of NV pair is the SPECIFIC_PROBLEM of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string.
correlatedNotifications	One NV pair of filterable_ body_fields	O	Name of NV pair is the CORRELATED_NOTIFICATIONS of interface AttributeNameValue. Value of NV pair is a CorrelatedNotificationSetType of module AlarmIRPConstDefs.
backedUpStatus	One NV pair of filterable_	O	Name of NV pair is the BACKED_UP_STATUS of interface AttributeNameValue of module AlarmIRPConstDefs.

IS Parameters	OMG CORBA Structured Event attribute	Qualifier	Comment
	body_fields		Value of NV pair is a boolean BackedUpStatusType of module AlarmIRPConstDefs.
backUpObject	One NV pair of filterable_ body_fields	O	Name of NV pair is the BACK_UP_OBJECT of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string carrying of DN of the back-up object. See 3G TS 32.300 [3] for the DN string representation.
trendIndication	One NV pair of filterable_ body_fields	O	Name of NV pair is the TREND_INDICATION of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is an enum TrendIndicationType of module AlarmIRPConstDefs.
thresholdInfo	One NV pair of filterable_ body_fields	O	Name of NV pair is the THRESHOLD_INFO of interface ParameterNameValue of module AlarmIRPConstDefs. Value of NV pair is a ThresholdInfoType of module AlarmIRPConstDefs.
stateChange-Definition	One NV pair of filterable_ body_fields	O	Name of NV pair is the STATE_CHANGE_DEFINITION of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is an AttributeChangeSetType of module AlarmIRPConstDefs.
monitoredAttributes	One NV pair of filterable_ body_fields	O	Name of NV pair is the MONITORED_ATTRIBUTES of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is an AttributeSetType of module AlarmIRPConstDefs.
proposedRepairActions	One NV pair of filterable_ body_fields	O	Name of NV pair is the PROPOSED_REPAIR_ACTIONS of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string.
additionalText	One NV pair of filterable_ body_fields	O	Name of NV pair is the ADDITIONAL_TEXT of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string.
additionalInformation	One or more NV pairs of filterable_ body_fields	O	Name and value of all NV pairs are vendor-specific.
alarmId	One NV pair of filterable_ body_fields	M	Name of NV pair is the ALARM_ID of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string. If the string is a zero-length string or if this NV pair is absent, the default semantics is that alarmId is a concatenation of managedObjectInstance, eventType, probableCause and specificProblem, if present, of this Structured Event. Since probableCause is encoded as a short, it shall be converted into string before concatenation. The resultant string shall not contain spaces.
There is no corresponding IS attribute.	remaining_ body		

End of Change in Table 10

Change in Table 10a

Table 10.a: Mapping for `notifyNewAlarm` (to carry security alarm)

IS Parameters	OMG CORBA Structured Event attribute	Qualifier	Comment
There is no corresponding SS attribute.	domain_name		It carries the IRP document version number string. See sub-clause 3.3. It indicates the syntax and semantics of the Structured Event as defined by this specification.
notificationType	type_name	M	This is the NOTIFY_FM_NEW_ALARM of interface NotificationType of module AlarmIRPConstDefs.
alarmType	event_name	M	It identifies one of the following: Integrity violation, operational violation, physical violation, security violation and time domain violation. It is a string defined by interface AlarmType of module AlarmIRPConstDefs.
There is no corresponding SS attribute.	variable Header		
objectClass, objectInstance	One NV pair of filterable_ body_fields	M	NV stands for name-value pair. Order arrangement of NV pairs is not significant. The name of NV-pair is always encoded in string. Name of NV pair is the MANAGED_OBJECT_INSTANCE of interface AttributeNameValue of module NotificationIRPConstDefs. Value of NV pair is a string.
notification-Id	One NV pair of filterable_ body_fields	M	Name of NV pair is the NOTIFICATION_ID of interface AttributeNameValue of module NotificationIRPConstDefs. Value of NV pair is a long.
eventTime	One NV pair of filterable_ body_fields	M	Name of NV pair is the EVENT_TIME of interface AttributeNameValue of module NotificationIRPConstDefs. Value of NV pair is a IRPTime of module ManagedGenericIRPConstDefs.
systemDN	One NV pair of filterable_ body_fields	M	Name of NV pair is the SYSTEM_DN of interface AttributeNameValue of module NotificationIRPConstDefs. Value of NV pair is a string.
probableCause	One NV pair of filterable_ body_fields	M	Name of NV pair is the PROBABLE_CAUSE of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a short defined by interface ProbableCause of module AlarmIRPConstDefs.
perceivedSeverity	One NV pair of filterable_ body_fields	M	Name of NV pair is the PERCEIVED_SEVERITY of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a short defined by interface PerceivedSeverity of module AlarmIRPConstDefs.
correlatedNotifications	One NV pair of filterable_ body_fields	O	Name of NV pair is the CORRELATED_NOTIFICATIONS of interface AttributeNameValue. Value of NV pair is a CorrelatedNotificationSetType of module AlarmIRPConstDefs.
additionalText	One NV pair of filterable_ body_fields	O	Name of NV pair is the ADDITIONAL_TEXT of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string.
additionalInformation	One or more NV pairs of filterable_ body_fields	O	Name and value of all NV pairs are vendor-specific.
alarmId	One NV pair of	M	Name of NV pair is the ALARM_ID of interface AttributeNameValue

IS Parameters	OMG CORBA Structured Event attribute	Qualifier	Comment
	filterable_ body_fields		of module AlarmIRPConstDefs. Value of NV pair is a string. If the string is a zero-length string or if this NV pair is absent, the default semantics is that alarmId is a concatenation of managedObjectInstance, eventType, probableCause and specificProblem, if present, of this Structured Event. Since probableCause is encoded as a short, it shall be converted into string before concatenation. The resultant string shall not contain spaces.
serviceUser	One NV pair of filterable_ body_fields	M	Name of NV pair is the SERVICE_USER of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string.
serviceProvider	One NV pair of filterable_ body_fields	M	Name of NV pair is the SERVICE_PROVIDER of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string.
securityAlarmDetector	One NV pair of filterable_ body_fields	M	Name of NV pair is the SECURITY_ALARM_DETECTOR of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string.
There is no corresponding IS attribute.	remaining_ body		

End of Change in Table 10a

3GPP TSG-SA5 (Telecom Management) **S5-027009**
Meeting #32, Vienna, Austria, 18-22 November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **32.111-3** **CR** **022** ⌘**rev** **-** ⌘ Current version: **4.4.0** ⌘

*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 **X** Core Network **X**

Title:	⌘	Add additionalInformation parameter in notification in Alarm IRP: CORBA SS (Alignment with Information Service in Rel-4 32111-2)
Source:	⌘	SA5
Work item code:	⌘	OAM-FM
Date:	⌘	22/11/2002
Category:	⌘	**F**
Release:	⌘	REL-4

Use one 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 one 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:	⌘	Add additionalInformation parameter in notifications
Summary of change:	⌘	Add new mapping information in notification mapping table regarding the additionalInformation parameter.
Consequences if not approved:	⌘	The notifications cannot carry the additionalInformation.

Clauses affected:	⌘	Table 10.

		Y	N		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
		X		O&M Specifications	Rel-5 32111-3

Other comments:	⌘	Parent Rel-4 CR in 32111-2CR019. Mirror Rel-5 CR in 32111-3CR023.

Change in Table 10

Table 10: Mapping for **`notifyNewAlarm`**

IS Parameters	OMG CORBA Structured Event attribute	Qualifier	Comment
There is no corresponding SS attribute.	domain_name		It carries the IRP document version number string. See sub-clause 3.3. It indicates the syntax and semantics of the Structured Event as defined by this specification.
notificationType	type_name	M	This is the NOTIFY_FM_NEW_ALARM of interface NotificationType of module AlarmIRPConstDefs.
alarmType	event_name	M	It identifies one of the following: communications alarm, processing error alarm, environmental alarm, quality of service alarm and equipment alarm. It is a string defined by interface AlarmType of module AlarmIRPConstDefs.
There is no corresponding SS attribute.	variable Header		
objectClass, objectInstance	One NV pair of filterable_ body_fields	M	NV stands for name-value pair. Order arrangement of NV pairs is not significant. The name of NV-pair is always encoded in string. Name of NV pair is the MANAGED_OBJECT_INSTANCE of interface AttributeNameValue of module NotificationIRPConstDefs. Value of NV pair is a string.
notification-Id	One NV pair of filterable_ body_fields	M	Name of NV pair is the NOTIFICATION_ID of interface AttributeNameValue of module NotificationIRPConstDefs. Value of NV pair is a long.
eventTime	One NV pair of filterable_ body_fields	M	Name of NV pair is the EVENT_TIME of interface AttributeNameValue of module NotificationIRPConstDefs. Value of NV pair is a IRPTime of module ManagedGenericIRPConstDefs.
systemDN	One NV pair of filterable_ body_fields	M	Name of NV pair is the SYSTEM_DN of interface AttributeNameValue of module NotificationIRPConstDefs. Value of NV pair is a string.
probableCause	One NV pair of filterable_ body_fields	M	Name of NV pair is the PROBABLE_CAUSE of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a short defined by interface ProbableCause of module AlarmIRPConstDefs.
perceivedSeverity	One NV pair of filterable_ body_fields	M	Name of NV pair is the PERCEIVED_SEVERITY of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a short defined by interface PerceivedSeverity of module AlarmIRPConstDefs.
specificProblem	One NV pair of filterable_ body_fields	O	Name of NV pair is the SPECIFIC_PROBLEM of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string.
correlatedNotifications	One NV pair of filterable_ body_fields	O	Name of NV pair is the CORRELATED_NOTIFICATIONS of interface AttributeNameValue. Value of NV pair is a CorrelatedNotificationSetType of module AlarmIRPConstDefs.
backedUpStatus	One NV pair of filterable_	O	Name of NV pair is the BACKED_UP_STATUS of interface AttributeNameValue of module AlarmIRPConstDefs.

IS Parameters	OMG CORBA Structured Event attribute	Qualifier	Comment
	body_fields		Value of NV pair is a boolean BackedUpStatusType of module AlarmIRPConstDefs.
backUpObject	One NV pair of filterable_ body_fields	O	Name of NV pair is the BACK_UP_OBJECT of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string carrying of DN of the back-up object. See 3G TS 32.300 [3] for the DN string representation.
trendIndication	One NV pair of filterable_ body_fields	O	Name of NV pair is the TREND_INDICATION of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is an enum TrendIndicationType of module AlarmIRPConstDefs.
thresholdInfo	One NV pair of filterable_ body_fields	O	Name of NV pair is the THRESHOLD_INFO of interface ParameterNameValue of module AlarmIRPConstDefs. Value of NV pair is a ThresholdInfoType of module AlarmIRPConstDefs.
stateChange-Definition	One NV pair of filterable_ body_fields	O	Name of NV pair is the STATE_CHANGE_DEFINITION of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is an AttributeChangeSetType of module AlarmIRPConstDefs.
monitoredAttributes	One NV pair of filterable_ body_fields	O	Name of NV pair is the MONITORED_ATTRIBUTES of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is an AttributeSetType of module AlarmIRPConstDefs.
proposedRepairActions	One NV pair of filterable_ body_fields	O	Name of NV pair is the PROPOSED_REPAIR_ACTIONS of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string.
additionalText	One NV pair of filterable_ body_fields	O	Name of NV pair is the ADDITIONAL_TEXT of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string.
additionalInformation	One or more NV pairs of filterable_ body_fields	O	Name and value of all NV pairs are vendor-specific.
alarmId	One NV pair of filterable_ body_fields	M	Name of NV pair is the ALARM_ID of interface AttributeNameValue of module AlarmIRPConstDefs. Value of NV pair is a string. If the string is a zero-length string or if this NV pair is absent, the default semantics is that alarmId is a concatenation of managedObjectInstance, eventType, probableCause and specificProblem, if present, of this Structured Event. Since probableCause is encoded as a short, it shall be converted into string before concatenation. The resultant string shall not contain spaces.
There is no corresponding IS attribute.	remaining_ body		

End of Change in Table 10.

3GPP TSG-SA5 (Telecom Management) **S5-027006**
Meeting #32, Vienna, Austria, 18-22 November 2002

CR-Form-v7

CHANGE REQUEST

⌘ **32.111-2** **CR** **020** ⌘**rev** **-** ⌘ Current version: **5.1.0** ⌘

*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:	⌘	Add additionalInformation parameter in notification in Alarm IRP: IS
Source:	⌘	SA5
Work item code:	⌘	OAM-NIM
Date:	⌘	22/11/2002
Category:	⌘	**A**
Release:	⌘	REL-5

Use one 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 one 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:	⌘	Add additionalInformation parameter in notifications
Summary of change:	⌘	Add an optional input parameter in notifications
Consequences if not approved:	⌘	The notifications cannot carry the additionalInformation.

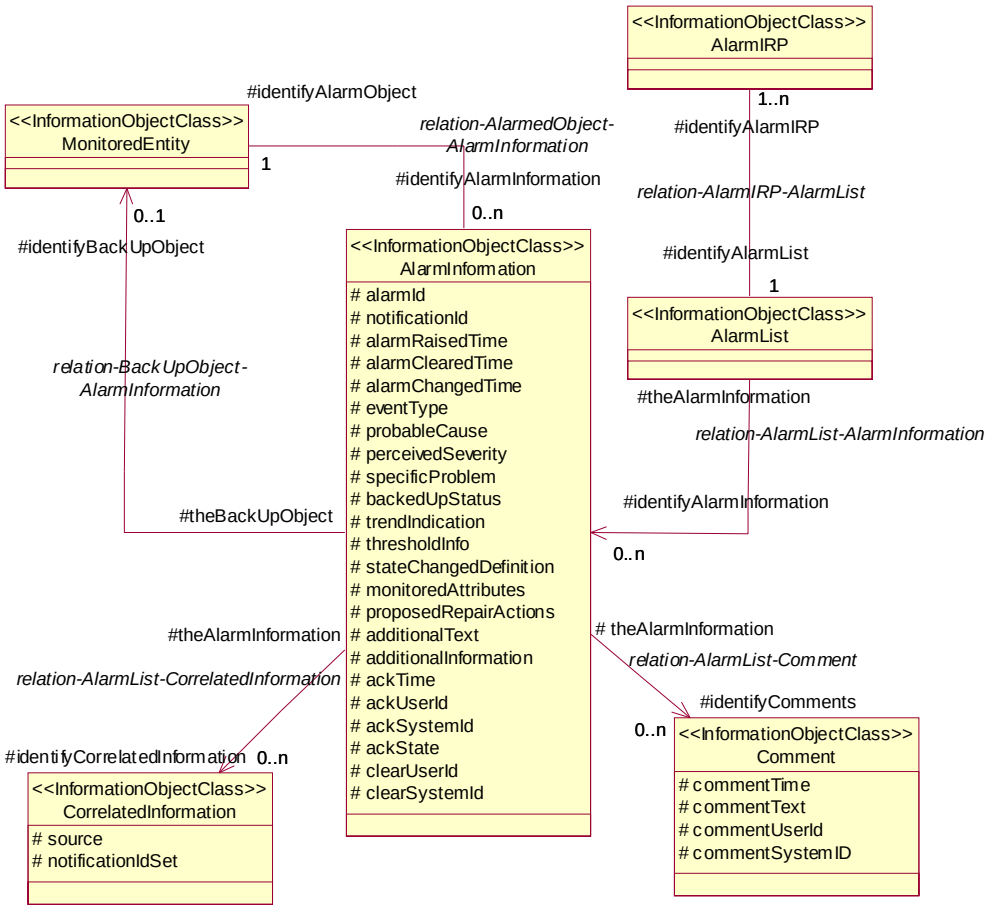
Clauses affected:	⌘	sub-clause 5.2.1, 5.3.1.2, 5.5.1, 6.8.1.2, 6.8.1.2a, 6.8.1.3.2

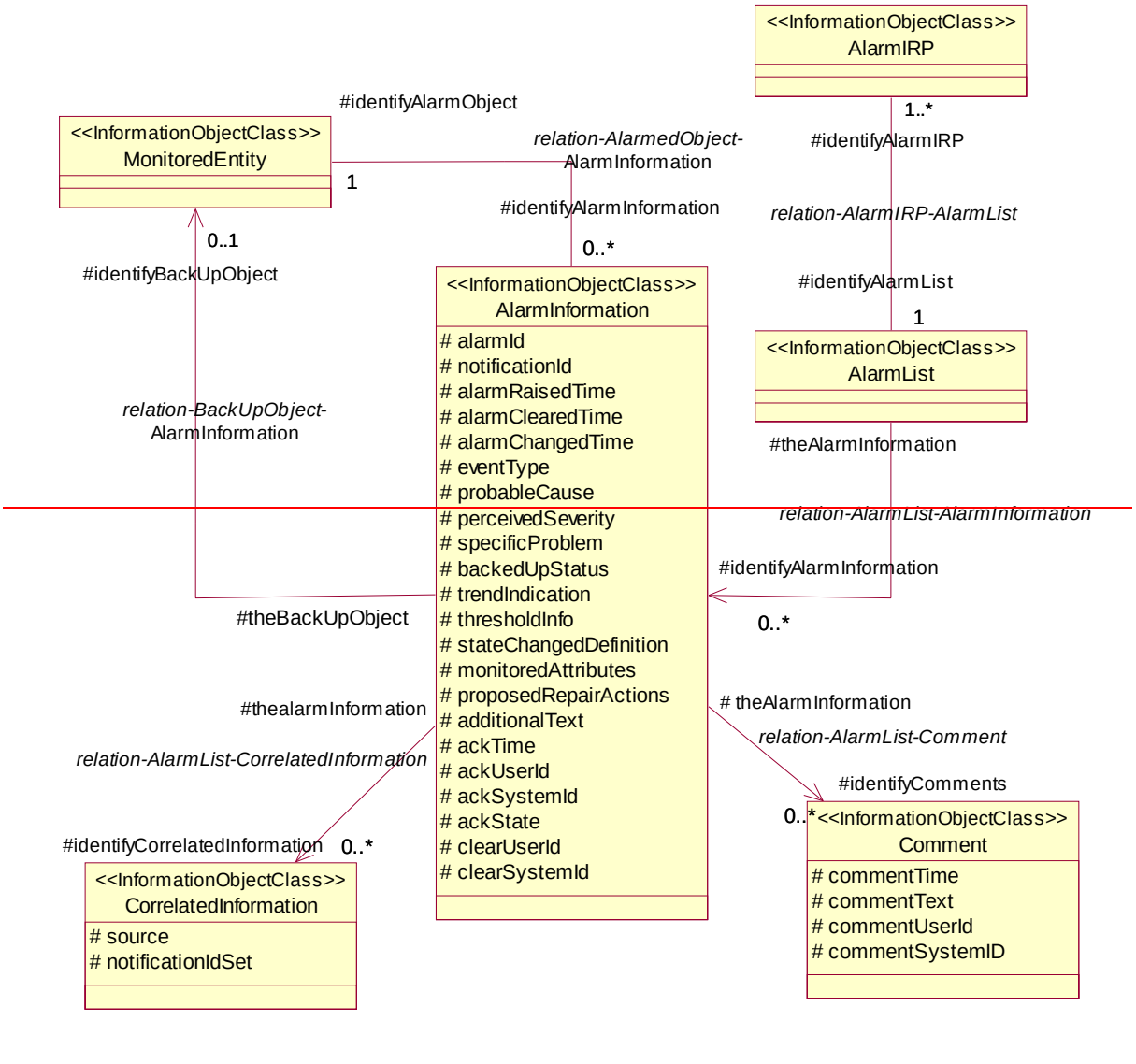
Other specs affected:	⌘	Y	N		
			X	Other core specifications	⌘
			X	Test specifications	
		X		O&M Specifications	Rel-5 32.111-3/4

Other comments:	⌘	Rel-5 Parent CR to 32111-3CR023 & 32111-4CR013. Rel-5 Mirror of 32111-2CR019.

Change in Clause 5.2.1

5.2.1 Attributes and relationships





End of Change in Clause 5.2.1

Change in Clause 5.3.1.2

5.3.1.2 Attribute

Attribute name	Support Qualifier
alarmId	M
notificationId (note 1)	M
alarmRaisedTime	M
alarmClearedTime	M
alarmChangedTime	O
eventType	M
probableCause	M
perceivedSeverity	M
specificProblem	O
backedUpStatus	O
trendIndication	O
thresholdInfo	O
stateChangedDefinition	O
monitoredAttributes	O
proposedRepairActions	O
additionalText	O
additionalInformation	O
ackTime	M
ackUserId	M
ackSystemId	O
ackState	M
clearUserId	M (note 2)
clearSystemId	O (note 2)
serviceUser	O (note 3)
serviceProvider	O (note 3)
securityAlarmDetector	O (note 3)

NOTE 1: This attribute may be "retired/removed" in Release 5 when Log IRP is introduced. Its removal implies that information carried in this attribute is no longer made accessible to IRPManager via the getAlarmList().

NOTE 2: These attributes and qualifiers are applicable only if the IRPAgent supports clearAlarms() (they are absent if clearAlarms() is not supported).

NOTE 3: These attributes must be supported if the IRPAgent emits `notifyNewAlarm` that carries security alarm information.

End of Change in Clause 5.3.1.2

Change in Clause 5.5.1

5.5.1 Definition and legal values

Name	Definition	Legal Values
alarmId	It identifies one AlarmInformation in the AlarmList.	
notification-Id	It identifies the notification that carries the AlarmInformation.	
alarmRaised-Time	It indicates the date and time when the alarm is first raised by the alarmed resource.	All values indicating valid time.
alarmChanged-Time	It indicates the last date and time when the AlarmInformation is changed by the alarmed resource. Changes to AlarmInformation caused by invocations of the IRPManager would not change this date and time.	All values indicating valid time.
alarmCleared-Time	It indicates the date and time when the alarm is Cleared.	All values indicating valid time.
eventType	It indicates the type of event. See Annex A for information on event type.	See Annex A.
probableCause	It qualifies alarm and provides further information than eventType. See Annex B for a complete listing.	See Annex B.
perceived-Severity	It indicates the relative level of urgency for operator attention.	Critical, Major, Minor, Warning, Indeterminate, Cleared: see ITU-T Recommendation X.733 [2]. This IRP does not recommend the use of indeterminate.
specific-Problem	It provides further qualification on the alarm than probableCause. This attribute value shall be single-value and of simple type such as integer or string. See definition in ITU-T Recommendation X.733 [2] clause 8.1.2.2.	Provided by vendor.
backedUp Status	It indicates if an object (the MonitoredEntity) has a back up. See definition in ITU-T Recommendation X.733 [2] clause 8.1.2.4.	All values that carry the semantics of backedUpStatus defined by ITU-T X.733 [2] clause 8.1.2.4.
trend-Indication	It indicates if some observed condition is getting better, worse, or not changing.	"Less severe", "no change", "more severe": see definition in ITU-T Recommendation X.733 [2] clause 8.1.2.6.
thresholdInfo	It indicates the direction of threshold crossing.	See definitions in ITU-T Recommendation X.733 [2] clause 8.1.2.7.
stateChange-Definition	It indicates MO attribute value changes. See definition in ITU-T Recommendation X.733 [2] clause 8.1.2.10.	
monitored-Attributes	It indicates MO attributes whose value changes are being monitored. See definition in ITU-T Recommendation X.733 [2] clause 8.1.2.11.	
proposed-RepairActions	It indicates proposed repair actions. See definition in ITU-T Recommendation X.733 [2] clause 8.1.2.12.	
additional-Text	It carries semantics that is outside the scope of this IRP specification. It may provide the identity of the NE (e.g. RNC, Node-B) from which the alarm has been originated. It corresponds to the "user label" attribute of the object class representing the NE in the Generic Network Resource Model [10]. It can contain further information on the alarm.	N/A
additionalInformation	It contains information on the alarm and its semantics is outside the scope of this IRP.	N/A
ackTime	It identifies the time of last operation acknowledgeAlarms or unacknowledgeAlarms.	All values that indicate valid time that are later than that carried in alarmRaisedTime.
ackUserId	It identifies the last user who has change the Acknowledgement State via operation acknowledgeAlarms or unacknowledgeAlarms.	It can be used to identify the human operator such as "John Smith" or it can identify a group, such as "Team Six", or it can contain no information such as "".
ackSystemId	It identifies the system in which IRPManager, that invokes the acknowledgeAlarms or unacknowledgeAlarms operation, runs.	It can be used to identify the system, such as "system 6" or it can contain no information such as "".

Name	Definition	Legal Values
ackState	It identifies the Acknowledgement State of the alarm.	Acknowledged: the alarm has been acknowledged. Unacknowledged: the alarm has been unacknowledged or the alarm has never been acknowledged.
commentTime	It carries the time when a comment is made via setComment operation.	
commentText	It carries the textual comment made via setComment operation.	
commentUserId	It carries the identification of the user who made the comment via setComment operation.	
commentSystemId	It carries the identification of the system in which the IRPManager runs. That IRPManager supports the user that made the comment.	
source	It identifies one MonitoredEntity.	All values that carry the semantics of DN.
notificationIdSet	It carries one or more notification identifiers.	
clearUserId	It carries the identity of the user who invokes the clearAlarms operation.	It can be used to identify the human operator such as "John Smith" or it can identify a group, such as "Team Six", or it can contain no information such as "".
clearSystemId	It carries the identity of the system in which the IRPManager runs. That IRPManager supports the user who invokes the clearAlarms().	It can be used to identify the system, such as "system 6" or it can contain no information such as "".
serviceUser	It identifies the service-user whose request for service provided by the serviceProvider led to the generation of the security alarm.	This attribute may carry no information if the server user is not identifiable.
serviceProvider	It identifies the service-provider whose service is requested by the serviceUser and the service request provokes the generation of the security alarm.	
securityAlarmDetector	It carries the identity of the detector of the security alarm.	This attribute may carry no information if the security alarm detector is not identifiable.

End of Change in Clause 5.5.1

Change in Clause 6.8.1.2

6.8.1.2 Input Parameters

Parameter Name	Qualifier	Matching Information	Comment
objectClass	M,F	MonitoredEntity.objectClass where the MonitoredEntity is identified by the relation-AlarmedObject-AlarmInformation of the new AlarmInformation.	
objectInstance	M,F	MonitoredEntity.objectInstance where the MonitoredEntity is identified by the relation-AlarmedObject-AlarmInformation of the new AlarmInformation.	
notificationId	M	This carries the semantics of notification identifier.	
eventTime	M,F	AlarmInformation.alarmRaisedTime	
systemDN	C,F	IRPAgent.systemDN where the IRPAgent is related to the AlarmIRP that is related to this AlarmList.	It carries the DN of the IRPAgent.
notificationType	M,F	"notifyNewAlarm".	
probableCause	M,F	AlarmInformation.probableCause	
perceivedSeverity	M,F	AlarmInformation.perceivedSeverity	
alarmType	M, F	AlarmInformation.eventType	The notification structure defined by this table is applicable if this parameter indicates "Communications Alarm", "Processing Error Alarm", "Environmental Alarm". "Quality Of Service Alarm" or "Equipment Alarm".
specificProblem	O	AlarmInformation.specificProblem	
correlatedNotifications	O	The set of CorrelatedNotification related to this AlarmInformation.	
backedUpStatus	O	AlarmInformation.backedUpStatus	
backUpObject	O	MonitoredEntity.objectInstance where the MonitoredEntity is identified by relation-BackUpObject-AlarmInformation of the new AlarmInformation.	It carries the DN of the back up object.
trendIndication	O	AlarmInformation.trendIndication	
thresholdInfo	O	AlarmInformation.thresholdInfo	
stateChangeDefinition	O	AlarmInformation.stateChange	
monitoredAttributes	O	AlarmInformation.monitoredAttributes	
proposedRepairActions	O	AlarmInformaton.proposedRepairActions	
additionalText	O	AlarmInformation.additionalText	
additionalInformation	O	AlarmInformation.additionalInformation	
alarmId	M	AlarmInformation.alarmId	

End of Change in Clause 6.8.1.2

Change in Clause 6.8.1.2a

6.8.1.2a Input Parameters

Parameter Name	Qualifier	Matching Information	Comment
objectClass	M,F	MonitoredEntity.objectClass where the MonitoredEntity is identified by the relation-AlarmedObject-AlarmInformation of the new AlarmInformation.	
objectInstance	M,F	MonitoredEntity.objectInstance where the MonitoredEntity is identified by the relation-AlarmedObject-AlarmInformation of the new AlarmInformation.	
notificationId	M	This carries the semantics of notification identifier.	
eventTime	M,F	AlarmInformation.alarmRaisedTime	
SystemDN	C,F	IRPAgent.systemDN where the IRPAgent is related to the AlarmIRP that is related to this AlarmList.	It carries the DN of the IRPAgent.
notificationType	M,F	"notifyNewAlarm".	
probableCause	M,F	AlarmInformation.probableCause	
perceivedSeverity	M,F	AlarmInformation.perceivedSeverity	
alarmType	M, F	AlarmInformation.eventType	The notification structure of this table is applicable if this parameter indicates "Integrity Violation", "Operational Violation", "Physical Violation", "Security Violation", "Time Domain Violation".
correlatedNotifications	O	The set of CorrelatedNotification related to this AlarmInformation.	
additionalText	O	AlarmInformation.additionalText	
additionalInformation	O	AlarmInformation.additionalInformation	
serviceUser	M	AlarmInformation.serviceUser	This may contain no information if the identify of the service-user (requesting the service) is not known.
serviceProvider	M	AlarmInformation.serviceProvider	This shall always identify the service-provider receiving a service request, from serviceUser, that provokes the security alarm.
securityAlarmDetector	M	AlarmInformation.securityAlarmDetector	This may contain no information if the detector of the security alarm is the serviceProvider.
alarmId	M	AlarmInformation.alarmId	

End of Change in Clause 6.8.1.2a

Change in Clause 6.8.1.3.2

6.8.1.3.2 To-state

`newAlarmInAlarmList.`

Assertion Name	Definition
newAlarmInAlarmList	AlarmList contains an AlarmInformation holding information conveyed by the newly generated network alarm. This AlarmInformation is involved in relation-AlarmObject-AlarmInformation with the same MonitoredEntity as the one identified by the newly generated network alarm. The following attributes of the AlarmInformation shall be populated with information in the newly generated alarm. alarmId, notificationId, alarmRaisedTime, eventType, probableCause, perceivedSeverity. The following attributes of the same AlarmInformation shall be populated with information in the newly generated alarm if the information is present (in the newly generated alarm) and if the attribute is supported: specificProblem, backedUpStatus, trendIndication, thresholdInfo, stateChangedDefinition, monitoredAttributes, proposedRepairActions, additionalText, additionalInformation.

End of Change in Clause 6.8.1.3.2