3GPP TSG CN Plenary Meeting #15 **NP-020106**
6 – 8 March 2002. Jeju, KOREA

Source: **CN5 (OSA)**

Title: **Rel-4 CRs 29.198-04 OSA API Part 4: Call control**

Agenda item: **8.5**

Document for: **Decision**

Doc-1st-Level	Spec	CR	R	Phase	Subject	Cat	Ver - Curr	Ver - New	Doc-2nd-Level	Workitem
NP-020106	29.198-04	031		Rel-4	**Add P_INVALID_INTERFACE_TYPE exception to IpService.setCallback() and IpService.setCallbackWithSessionID()**	F	4.2.0	4.3.0	N5-020021	OSA1
NP-020106	29.198-04	032		Rel-4	**Correction of Event Subscription/Notification Data Type**	F	4.2.0	4.3.0	N5-020030	OSA1
NP-020106	29.198-04	033		Rel-4	**Correction of parameter name in IpCallLeg.routeReq() and in IpCallLeg.setAdviceOfCharge()**	F	4.2.0	4.3.0	N5-020031	OSA1
NP-020106	29.198-04	034		Rel-4	**Clarification of ambiguous Event handling rules**	F	4.2.0	4.3.0	N5-020072	OSA1

3GPP TSG_CN5 (Open Service Access – OSA) **N5-020021**
Meeting #16, Hong Kong, CHINA, 4 – 8 February 2002

CR-Form-v5

CHANGE REQUEST

⌘ **29.198-04** **CR** **031** ⌘ **rev** **-** ⌘ Current version: **4.2.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	Add P_INVALID_INTERFACE_TYPE exception to IpService.setCallback() and IpService.setCallbackWithSessionID()
Source:	⌘	CN5
Work item code:	⌘	OSA1
Date:	⌘	08/02/2002
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)

Reason for change:	⌘	The 2 methods setCallback() and setCallbackWithSessionID() are both used to pass an interface reference, yet there is no possible exception to indicate if an incorrect interface reference has been passed.
Summary of change:	⌘	Add the exception P_INVALID_INTERFACE_TYPE to the exception list of setCallback() and setCallbackWithSessionID()
Consequences if not approved:	⌘	If an incorrect interface reference is received, a service instance will not be able to indicate this to the application, therefore no callback interface reference will have been provided, and so interworking between instances of an application and a service will fail.

Clauses affected:	⌘	5.4.1		
Other specs affected:	⌘	☒ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	TS 29.198-3, -5 to -12 inclusive
Other comments:	⌘			

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

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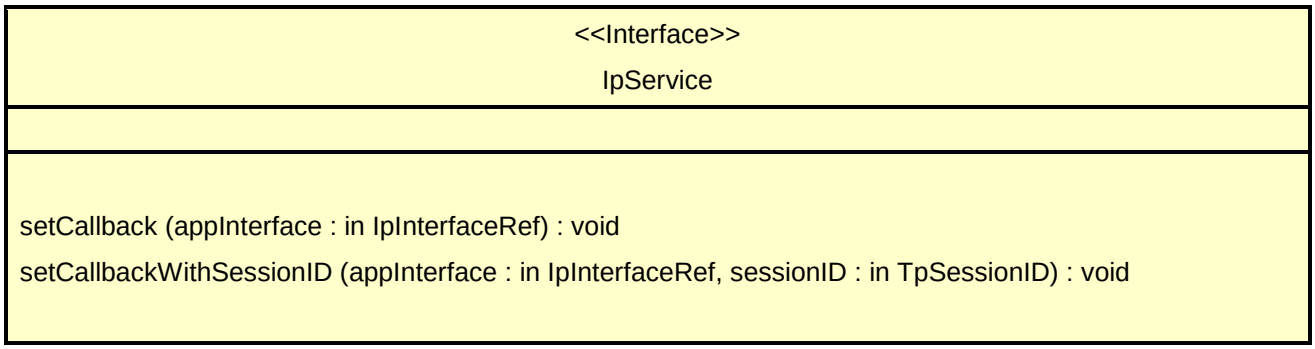
3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5.4 Generic Service Interface

5.4.1 Interface Class IpService

Inherits from: IpInterface

All service interfaces inherit from the following interface.



Method

setCallback()

This method specifies the reference address of the callback interface that a service uses to invoke methods on the application. It is not allowed to invoke this method on an interface that uses SessionID's.

Parameters

appInterface : in IpInterfaceRef

Specifies a reference to the application interface, which is used for callbacks

Raises

TpCommonExceptions, P_INVALID_INTERFACE_TYPE

Method

setCallbackWithSessionID()

This method specifies the reference address of the application's callback interface that a service uses for interactions associated with a specific session ID: e.g. a specific call, or call leg. It is not allowed to invoke this method on an interface that does not uses SessionID's.

Parameters

appInterface : in IpInterfaceRef

Specifies a reference to the application interface, which is used for callbacks

sessionID : in TpSessionID

Specifies the session for which the service can invoke the application's callback interface.

Raises

TpCommonExceptions, P_INVALID_SESSION_ID, P_INVALID_INTERFACE_TYPE

3GPP TSG_CN5 (Open Service Access – OSA) **N5-020072**
Meeting #16, Hongkong, China, 4 – 8 February 2002

CR-Form-v4

CHANGE REQUEST

⌘ **29.198-04** **CR** **034** ⌘ ev **-** ⌘ Current version: **4.2.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☐ Core Network **X**

Title:	⌘	Clarification of ambiguous Event handling rules
Source:	⌘	CN5
Work item code:	⌘	OSA1
Date:	⌘	08/02/2002
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)*

Reason for change:	⌘	The event handling rules are not completely clear, especially when an event is requested multiple times for the same leg with different monitor modes and/or criteria.
Summary of change:	⌘	Added additional event handling rules that describe: - that criteria are not taken into account when disarming triggers from the app - that setting new criteria overrides the old criteria and the same for monitor mode. - when P_INVALID_EVENT_TYPE is applicable as exception The criteria for the service code events is changed to a set. This ensures that the defined rules are applicable to all types of dynamic events (i.e., it was only possible to request multiple service codes by requesting the event multiple times with different criteria).
Consequences if not approved:	⌘	Interoperability problems caused by different interpretations

Clauses affected:	⌘	7.6.2
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

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

TpCallEventType

Defines a specific call event report type.

Name	Value	Description
P_CALL_EVENT_UNDEFINED	0	Undefined
P_CALL_EVENT_ORIGINATING_CALL_ATTEMPT	1	An originating call attempt takes place (e.g. Off-hook event).
P_CALL_EVENT_ORIGINATING_CALL_ATTEMPT_AUTHORISED	2	An originating call attempt is authorised
P_CALL_EVENT_ADDRESS_COLLECTED	3	The destination address has been collected.
P_CALL_EVENT_ADDRESS_ANALYSED	4	The destination address has been analysed.
P_CALL_EVENT_ORIGINATING_SERVICE_CODE	5	Mid-call originating service code received.
P_CALL_EVENT_ORIGINATING_RELEASE	6	A originating call/call leg is released
P_CALL_EVENT_TERMINATING_CALL_ATTEMPT	7	A terminating call attempt takes place
P_CALL_EVENT_TERMINATING_CALL_ATTEMPT_AUTHORISED	8	A terminating call is authorized
P_CALL_EVENT_ALERTING	9	Call is alerting at the call party.
P_CALL_EVENT_ANSWER	10	Call answered at address.
P_CALL_EVENT_TERMINATING_RELEASE	11	A terminating call leg has been released or the call could not be routed.
P_CALL_EVENT_REDIRECTED	12	Call redirected to new address: an indication from the network that the call has been redirected to a new address (no events disarmed as a result of this).
P_CALL_EVENT_TERMINATING_SERVICE_CODE	13	Mid call terminating service code received.
P_CALL_EVENT_QUEUED	14	The Call Event has been queued. (no events are disarmed as a result of this)

EVENT HANDLING RULES:

The following general event handling rules apply to dynamically armed events:

When requesting events for one leg;

1. When the monitor mode is set to P_CALL_MONITOR_MODE_DO_NOT_MONITOR all events armed for that eventtype are disarmed. The additionalEventCriteria are not taken into account.

2. When requesting two events for the same event type with different criteria and/or different monitor mode the last used criteria and monitor mode apply.

3. Events that are not applicable to a leg are refused with exception P_INVALID_EVENT_TYPE. The same exception is used when criteria are used that are not applicable to the leg,
   E.g., requesting P_CALL_EVENT_TERMINATING_SERVICE_CODE on an originating leg is refused with exception P_INVALID_EVENT_CRITERIA.
   When P_CALL_EVENT_ORIGINATING_RELEASE is requested with P_BUSY in the criteria the request is refused with the same exception.

When receiving events:

- If an armed event is met, then it is disarmed, unless explicit stated that it will not to be disarmed.
- If an event is met that causes the release of the related leg, then all events related to that leg are disarmed .
- When an event is met on a call leg irrespective of the event monitor mode, then only events belonging to that call leg may become disarmed (see table below) .
- If a call is released, then all events related to that call are disarmed.

Note: Event disarmed means monitor mode is set to DO_NOT_MONITOR. and event armed means monitor mode is set to INTERRUPT or NOTIFY..

The table below defines the disarming rules for dynamic events. In case such an event occurs on a call leg the table shows which events are disarmed (are not monitored anymore) on that call leg and should be re-armed by eventReportReq() in case the application is still interested in these events.

Event Occurred	Events Disarmed
P_CALL_EVENT_UNDEFINED	Not Applicable
P_CALL_EVENT_ORIGINATING_CALL_ATTEMPT	Not applicable, can only be armed as trigger
P_CALL_EVENT_ORIGINATING_CALL_ATTEMPT_AUTHORISED	P_CALL_EVENT_ORIGINATING_CALL_ATTEMPT_AUTHORISED
P_CALL_EVENT_ADDRESS_COLLECTED	P_CALL_EVENT_ADDRESS_COLLECTED
P_CALL_EVENT_ADDRESS_ANALYSED	P_CALL_EVENT_ADDRESS_COLLECTED P_CALL_EVENT_ADDRESS_ANALYSED
P_CALL_EVENT_ALERTING	P_CALL_EVENT_ALERTING P_CALL_EVENT_TERMINATING_RELEASE with criteria: P_USER_NOT_AVAILABLE P_BUSY P_NOT_REACHABLE P_ROUTING_FAILURE P_CALL_RESTRICTED P_UNAVAILABLE_RESOURCES
P_CALL_EVENT_ANSWER	P_CALL_EVENT_ALERTING P_CALL_EVENT_ANSWER P_CALL_EVENT_TERMINATING_RELEASE with criteria: P_USER_NOT_AVAILABLE P_BUSY P_NOT_REACHABLE P_ROUTING_FAILURE P_CALL_RESTRICTED P_UNAVAILABLE_RESOURCES P_NO_ANSWER
P_CALL_EVENT_ORIGINATING_RELEASE	All pending network events for the call leg are disarmed
P_CALL_EVENT_TERMINATING_RELEASE	All pending network events for the call leg are disarmed
P_CALL_EVENT_ORIGINATING_SERVICE_CODE	P_CALL_EVENT_ORIGINATING_SERVICE_CODE *) see NOTE 1
P_CALL_EVENT_TERMINATING_SERVICE_CODE	P_CALL_EVENT_TERMINATING_SERVICE_CODE *) see NOTE
NOTE 1: Only the detected service code or the range to which the service code belongs is disarmed.	

TpAdditionalCallEventCriteria

Defines the `Tagged Choice of Data Elements` that specify specific criteria.

	Tag Element Type	
	TpCallEventType	

Tag Element Value	Choice Element Type	Choice Element Name
P_CALL_EVENT_UNDEFINED	NULL	Undefined
P_CALL_EVENT_ORIGINATING_CALL_ATTEMPT	NULL	Undefined
P_CALL_EVENT_ORIGINATING_CALL_ATTEMPT_AUTHORISED	NULL	Undefined
P_CALL_EVENT_ADDRESS_COLLECTED	TpInt32	MinAddressLength
P_CALL_EVENT_ADDRESS_ANALYSED	NULL	Undefined
P_CALL_EVENT_ORIGINATING_SERVICE_CODE	TpCallServiceCodeSet	OriginatingServiceCode
P_CALL_EVENT_ORIGINATING_RELEASE	TpReleaseCauseSet	OriginatingReleaseCauseSet
P_CALL_EVENT_TERMINATING_CALL_ATTEMPT	NULL	Undefined
P_CALL_EVENT_TERMINATING_CALL_ATTEMPT_AUTHORISED	NULL	Undefined
P_CALL_EVENT_ALERTING	NULL	Undefined
P_CALL_EVENT_ANSWER	NULL	Undefined
P_CALL_EVENT_TERMINATING_RELEASE	TpReleaseCauseSet	TerminatingReleaseCauseSet
P_CALL_EVENT_REDIRECTED	NULL	Undefined
P_CALL_EVENT_TERMINATING_SERVICE_CODE	TpCallServiceCodeSet	TerminatingServiceCode
P_CALL_EVENT_QUEUED	NULL	Undefined

…

TpCallServiceCodeSet

Defines a Numbered Set of Data Elements of TpCallServiceCode.

3GPP TSG_CN5 (Open Service Access – OSA) **N5-020031**
Meeting #16, Hong Kong, CHINA, 4 – 8 February 2002

CR-Form-v5

CHANGE REQUEST

⌘ **29.198-04** **CR** **033** ⌘ **rev** **-** ⌘ Current version: **4.2.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☐ Core Network **X**

Title:	⌘	Correction of parameter name in IpCallLeg.routeReq() and in IpCallLeg.setAdviceOfCharge()
Source:	⌘	CN5
Work item code:	⌘	OSA1
Date:	⌘	08/02/2002
Category:	⌘	**F**
Release:	⌘	REL-4

Use one of the following categories:
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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)

Reason for change:	⌘	Method routeReq() in interface IpCallLeg has a parameter called targetAddess, when it should be called targetAddress. The equivalent parameter in IpMultiPartyCall.createAndRouteCallLegReq() is correctly spelt targetAddress. Method setAdviceOfCharge() in the same interface has a parameter called tarrifSwitch, when it should be called tariffSwitch. The equivalent parameter in IpMultiPartyCall.setAdviceOfCharge is correctly spelt tariffSwitch.
Summary of change:	⌘	Change parameter targetAddess in IpCallLeg.routeReq() to targetAddress. Change parameter tarrifSwitch in IpCallLeg.setAdviceOfCharge to tariffSwitch.
Consequences if not approved:	⌘	This change has a direct impact on implementation code. If it is not corrected in the specifications, some implementors might correct this, others will follow the specification, and interworking problems will result. There should be no room in a specification of this sort for interpretation by implementors. Correcting this in later releases will have an impact on backward compatibility.

Clauses affected:	⌘	7.3.5
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

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7.3.5 Interface Class IpCallLeg

Inherits from: IpService

The call leg interface represents the logical call leg associating a call with an address. The call leg tracks its own states and allows charging summaries to be accessed. The leg represents the signalling relationship between the call and an address. An application that uses the IpCallLeg interface to set up connections has good control, e.g. by defining leg specific event request and can obtain call leg specific report and events.

<<Interface>> IpCallLeg
routeReq (callLegSessionID : in TpSessionID, ~~targetAddess~~ targetAddress : in TpAddress, originatingAddress : in TpAddress, appInfo : in TpCallAppInfoSet, connectionProperties : in TpCallLegConnectionProperties) : void eventReportReq (callLegSessionID : in TpSessionID, eventsRequested : in TpCallEventRequestSet) : void release (callLegSessionID : in TpSessionID, cause : in TpReleaseCause) : void getInfoReq (callLegSessionID : in TpSessionID, callLegInfoRequested : in TpCallLegInfoType) : void getCall (callLegSessionID : in TpSessionID) : TpMultiPartyCallIdentifier attachMediaReq (callLegSessionID : in TpSessionID) : void detachMediaReq (callLegSessionID : in TpSessionID) : void getCurrentDestinationAddress (callLegSessionID : in TpSessionID) : TpAddress continueProcessing (callLegSessionID : in TpSessionID) : void setChargePlan (callLegSessionID : in TpSessionID, callChargePlan : in TpCallChargePlan) : void setAdviceOfCharge (callLegSessionID : in TpSessionID, aOCInfo : in TpAoCInfo, ~~tarrifSwitch~~ tariffSwitch : in TpDuration) : void superviseReq (callLegSessionID : in TpSessionID, time : in TpDuration, treatment : in TpCallLegSuperviseTreatment) : void deassign (callLegSessionID : in TpSessionID) : void

3GPP TSG_CN5 (Open Service Access – OSA) **N5-020030**
Meeting #16, Hong Kong, CHINA, 4 – 8 February 2002

CR-Form-v5

CHANGE REQUEST

⌘ **29.198-04** **CR** **032** ⌘ **rev** **-** ⌘ Current version: **4.2.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☐ Core Network **X**

Title:	⌘	Correction of Event Subscription/Notification Data Type
Source:	⌘	CN5
Work item code:	⌘	OSA1
Date:	⌘	08/02/2002
Category:	⌘	**F**
Release:	⌘	REL-4

Use one of the following categories:
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A *(corresponds to a correction in an earlier release)*
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2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
REL-4 (Release 4)
REL-5 (Release 5)

Reason for change:	⌘	Order of events in GCCS tagged type TpCallAdditionalReportInfo does not match that of TpCallReportType, the tag element type. Event P_CALL_REPORT_QUEUED can be reported in GCCS TpCallAdditionalReportInfo, but it can never be subscribed to using TpCallAdditionalReportCriteria. Order of events in MPCCS tagged type TpCallAdditionalEventInfo does not match that of TpCallEventType, the tag element type
Summary of change:	⌘	Relocate P_CALL_REPORT_QUEUED in GCCS TpCallAdditionalReportInfo; Add P_CALL_REPORT_QUEUED to GCCS TpCallAdditionalReportCriteria; Relocate P_CALL_EVENT_QUEUED in MPCCS TpCallAdditionalEventInfo.
Consequences if not approved:	⌘	An incomplete specification of call control event subscription and reporting will exist, with events being described but which can never be subscribed to.

Clauses affected:	⌘	6.6.2, 7.6.2
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

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

6.6.2 Generic Call Control Data Definitions

TpCallAdditionalReportInfo

Defines the Tagged Choice of Data Elements that specify additional call report information for certain types of reports.

	Tag Element Type	
	TpCallReportType	

Tag Element Value	Choice Element Type	Choice Element Name
P_CALL_REPORT_UNDEFINED	NULL	Undefined
P_CALL_REPORT_PROGRESS	NULL	Undefined
P_CALL_REPORT_ALERTING	NULL	Undefined
P_CALL_REPORT_ANSWER	NULL	Undefined
P_CALL_REPORT_BUSY	TpCallReleaseCause	Busy
P_CALL_REPORT_NO_ANSWER	NULL	Undefined
P_CALL_REPORT_DISCONNECT	TpCallReleaseCause	CallDisconnect
P_CALL_REPORT_REDIRECTED	TpAddress	ForwardAddress
P_CALL_REPORT_SERVICE_CODE	TpCallServiceCode	ServiceCode
P_CALL_REPORT_ROUTING_FAILURE	TpCallReleaseCause	RoutingFailure
P_CALL_REPORT_QUEUED	TpString	QueueStatus
P_CALL_REPORT_NOT_REACHABLE	TpCallReleaseCause	NotReachable
~~P_CALL_REPORT_QUEUED~~	~~TpString~~	~~QueueStatus~~

TpCallAdditionalReportCriteria

Defines the Tagged Choice of Data Elements that specify specific criteria.

	Tag Element Type	
	TpCallReportType	

Tag Element Value	Choice Element Type	Choice Element Name
P_CALL_REPORT_UNDEFINED	NULL	Undefined
P_CALL_REPORT_PROGRESS	NULL	Undefined
P_CALL_REPORT_ALERTING	NULL	Undefined
P_CALL_REPORT_ANSWER	NULL	Undefined
P_CALL_REPORT_BUSY	NULL	Undefined
P_CALL_REPORT_NO_ANSWER	TpDuration	NoAnswerDuration
P_CALL_REPORT_DISCONNECT	NULL	Undefined
P_CALL_REPORT_REDIRECTED	NULL	Undefined
P_CALL_REPORT_SERVICE_CODE	TpCallServiceCode	ServiceCode
P_CALL_REPORT_ROUTING_FAILURE	NULL	Undefined
P_CALL_REPORT_QUEUED	NULL	Undefined
P_CALL_REPORT_NOT_REACHABLE	NULL	Undefined

TpCallReportType

Defines a specific call event report type.

Name	Value	Description
P_CALL_REPORT_UNDEFINED	0	Undefined.
P_CALL_REPORT_PROGRESS	1	Call routing progress event:an indication from the network that progress has been made in routing the call to the requested call party. This message may be sent more than once, or may not be sent at all by the gateway with respect to routing a given call leg to a given address.
P_CALL_REPORT_ALERTING	2	Call is alerting at the call party.
P_CALL_REPORT_ANSWER	3	Call answered at address.
P_CALL_REPORT_BUSY	4	Called address refused call due to busy.
P_CALL_REPORT_NO_ANSWER	5	No answer at called address.
P_CALL_REPORT_DISCONNECT	6	The media stream of the called party has disconnected. This does not imply that the call has ended. When the call is ended, the callEnded method is called. This event can occur both when the called party hangs up, or when the application explicitly releases the leg using IpCallLeg::release() This cannot occur when the app explicitly releases the call leg and the call.
P_CALL_REPORT_REDIRECTED	7	Call redirected to new address: an indication from the network that the call has been redirected to a new address.
P_CALL_REPORT_SERVICE_CODE	8	Mid-call service code received.
P_CALL_REPORT_ROUTING_FAILURE	9	Call routing failed - re-routing is possible.
P_CALL_REPORT_QUEUED	10	The call is being held in a queue. This event may be sent more than once during the routing of a call.
P_CALL_REPORT_NOT_REACHABLE	11	The called address is not reachable; e.g., the phone has been switched off or the phone is outside the coverage area of the network.

7.6.2 Multi-Party Call Control Data Definitions

TpCallAdditionalEventInfo

Defines the Tagged Choice of Data Elements that specify additional call event information for certain types of events.

	Tag Element Type	
	TpCallEventType	

Tag Element Value	Choice Element Type	Choice Element Name
P_CALL_EVENT_UNDEFINED	NULL	Undefined
P_CALL_EVENT_ORIGINATING_CALL_ATTEMPT	NULL	Undefined
P_CALL_EVENT_ORIGINATING_CALL_ATTEMPT_AUTHORISED	NULL	Undefined
P_CALL_EVENT_ADDRESS_COLLECTED	TpAddress	CollectedAddress
P_CALL_EVENT_ADDRESS_ANALYSED	TpAddress	CalledAddress
P_CALL_EVENT_ORIGINATING_SERVICE_CODE	TpCallServiceCode	OriginatingServiceCode
P_CALL_EVENT_ORIGINATING_RELEASE	TpReleaseCause	OriginatingReleaseCause
P_CALL_EVENT_TERMINATING_CALL_ATTEMPT	NULL	Undefined
P_CALL_EVENT_TERMINATING_CALL_ATTEMPT_AUTHORISED	NULL	Undefined
~~P_CALL_EVENT_QUEUED~~	~~NULL~~	~~Undefined~~
P_CALL_EVENT_ALERTING	NULL	Undefined
P_CALL_EVENT_ANSWER	NULL	Undefined
P_CALL_EVENT_TERMINATING_RELEASE	TpReleaseCause	TerminatingReleaseCause
P_CALL_EVENT_REDIRECTED	TpAddress	ForwardAddress
P_CALL_EVENT_TERMINATING_SERVICE_CODE	TpCallServiceCode	TerminatingServiceCode
P_CALL_EVENT_QUEUED	NULL	Undefined