

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

**NP-020112**

**Source:** CN5 (OSA)  
**Title:** Rel-4 CRs 29.198-12 OSA API Part 12: Charging  
**Agenda item:** 8.5  
**Document for:** Decision

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Doc-1st-Level	Spec	CR	R	Phase	Subject	Cat	Ver - Curr	Ver - New	Doc-2nd-Level	Workitem
NP-020112	29.198-12	010		Rel-4	Add P_INVALID_INTERFACE_TYPE exception to IpService.setCallback() and IpService.setCallbackWithSessionID()	F	4.2.0	4.3.0	N5-020027	OSA1
NP-020112	29.198-12	011		Rel-4	Correction of parameter name in IpAppChargingSession.extendLifeTimeRes()	F	4.2.0	4.3.0	N5-020034	OSA1

## CHANGE REQUEST

⌘ **29.198-12 CR 010** ⌘ 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

<b>Title:</b>	⌘	Add P_INVALID_INTERFACE_TYPE exception to IpService.setCallback() and IpService.setCallbackWithSessionID()	
<b>Source:</b>	⌘	CN5	
<b>Work item code:</b>	⌘	OSA1	<b>Date:</b> ⌘ 08/02/2002
<b>Category:</b>	⌘	<b>F</b>	<b>Release:</b> ⌘ REL-4
		Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.	Use <u>one</u> of the following releases: <b>2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>REL-4</b> (Release 4) <b>REL-5</b> (Release 5)

<b>Reason for change:</b>	⌘	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.
<b>Summary of change:</b>	⌘	Add the exception P_INVALID_INTERFACE_TYPE to the exception list of setCallback() and setCallbackWithSessionID()
<b>Consequences if not approved:</b>	⌘	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.

<b>Clauses affected:</b>	⌘	7.4.1
<b>Other specs affected:</b>	⌘	<input checked="" type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications
<b>Other comments:</b>	⌘	TS 29.198-3 to -8 inclusive, -11

**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](http://www.3gpp.org/3G_Specs/CRs.htm). Below is a brief summary:

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

## 7.4 Generic Service Interface

### 7.4.1 Interface Class IpService

Inherits from: IpInterface

All service interfaces inherit from the following interface.

<<Interface>> IpService
<pre> setCallback (appInterface : in IpInterfaceRef) : void setCallbackWithSessionID (appInterface : in IpInterfaceRef, sessionID : in TpSessionID) : void </pre>

#### *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`

## CHANGE REQUEST

⌘ **29.198-12 CR 011** ⌘ 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

<b>Title:</b>	⌘ Correction of parameter name in IpAppChargingSession.extendLifeTimeRes()		
<b>Source:</b>	⌘ CN5		
<b>Work item code:</b>	⌘ OSA1 <span style="float: right;"><b>Date:</b> ⌘ 08/02/2002</span>		
<b>Category:</b>	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;">                 ⌘ <b>F</b>                  Use <u>one</u> of the following categories:  <b>F</b> (correction)  <b>A</b> (corresponds to a correction in an earlier release)  <b>B</b> (addition of feature),  <b>C</b> (functional modification of feature)  <b>D</b> (editorial modification)                  Detailed explanations of the above categories can be found in 3GPP TR 21.900.             </td> <td style="width: 50%; vertical-align: top;"> <b>Release:</b> ⌘ REL-4                  Use <u>one</u> of the following releases:                  2 (GSM Phase 2)                  R96 (Release 1996)                  R97 (Release 1997)                  R98 (Release 1998)                  R99 (Release 1999)                  REL-4 (Release 4)                  REL-5 (Release 5)             </td> </tr> </table>	⌘ <b>F</b> Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.	<b>Release:</b> ⌘ REL-4 Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)
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<b>Reason for change:</b>	⌘ IpAppChargingSession.extendLifeTimeRes() has a parameter name which starts with an uppercase letter, when convention is that it starts with a lower case letter. This is a technical change which has a direct impact on implementation code, and if not corrected now, might never be corrected
<b>Summary of change:</b>	⌘ Change SessionTimeLeft parameter of IpAppChargingSession.extendLifeTimeRes() to sessionTimeLeft
<b>Consequences if not approved:</b>	⌘ This change has a direct impact on implementation code. If it is not corrected now, it will be impossible to correct once implementations appear. If it is not corrected in the specifications, some implementers will follow convention and correct this, others will follow the specification to the letter, and interworking problems will result.

<b>Clauses affected:</b>	⌘ 8.4									
<b>Other specs affected:</b>	<table style="width: 100%; border: none;"> <tr> <td style="width: 20%;"><input type="checkbox"/></td> <td style="width: 60%;">Other core specifications</td> <td style="width: 20%;">⌘</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Test specifications</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td>O&amp;M Specifications</td> <td></td> </tr> </table>	<input type="checkbox"/>	Other core specifications	⌘	<input type="checkbox"/>	Test specifications		<input type="checkbox"/>	O&M Specifications	
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## 8.4 Interface Class IpAppChargingSession

Inherits from: IpInterface.

This application interface must be implemented by the client application to handle callbacks from the IpChargingSession.

<<Interface>> IpAppChargingSession
creditAmountErr (sessionID : in TpSessionID, requestNumber : in TpInt32, error : in TpChargingError, requestNumberNextRequest : in TpInt32) : void creditAmountRes (sessionID : in TpSessionID, requestNumber : in TpInt32, creditedAmount : in TpChargingPrice, reservedAmountLeft : in TpChargingPrice, requestNumberNextRequest : in TpInt32) : void creditUnitErr (sessionID : in TpSessionID, requestNumber : in TpInt32, error : in TpChargingError, requestNumberNextRequest : in TpInt32) : void creditUnitRes (sessionID : in TpSessionID, requestNumber : in TpInt32, creditedVolumes : in TpVolumeSet, reservedUnitsLeft : in TpVolumeSet, requestNumberNextRequest : in TpInt32) : void debitAmountErr (sessionID : in TpSessionID, requestNumber : in TpInt32, error : in TpChargingError, requestNumberNextRequest : in TpInt32) : void debitAmountRes (sessionID : in TpSessionID, requestNumber : in TpInt32, debitedAmount : in TpChargingPrice, reservedAmountLeft : in TpChargingPrice, requestNumberNextRequest : in TpInt32) : void debitUnitErr (sessionID : in TpSessionID, requestNumber : in TpInt32, error : in TpChargingError, requestNumberNextRequest : in TpInt32) : void debitUnitRes (sessionID : in TpSessionID, requestNumber : in TpInt32, debitedVolumes : in TpVolumeSet, reservedUnitsLeft : in TpVolumeSet, requestNumberNextRequest : in TpInt32) : void directCreditAmountErr (sessionID : in TpSessionID, requestNumber : in TpInt32, error : in TpChargingError, requestNumberNextRequest : in TpInt32) : void directCreditAmountRes (sessionID : in TpSessionID, requestNumber : in TpInt32, creditedAmount : in TpChargingPrice, requestNumberNextRequest : in TpInt32) : void directCreditUnitErr (sessionID : in TpSessionID, requestNumber : in TpInt32, error : in TpChargingError, requestNumberNextRequest : in TpInt32) : void directCreditUnitRes (sessionID : in TpSessionID, requestNumber : in TpInt32, creditedVolumes : in TpVolumeSet, requestNumberNextRequest : in TpInt32) : void directDebitAmountErr (sessionID : in TpSessionID, requestNumber : in TpInt32, error : in TpChargingError, requestNumberNextRequest : in TpInt32) : void directDebitAmountRes (sessionID : in TpSessionID, requestNumber : in TpInt32, debitedAmount : in TpChargingPrice, requestNumberNextRequest : in TpInt32) : void directDebitUnitErr (sessionID : in TpSessionID, requestNumber : in TpInt32, error : in TpChargingError, requestNumberNextRequest : in TpInt32) : void directDebitUnitRes (sessionID : in TpSessionID, requestNumber : in TpInt32, debitedVolumes : in TpVolumeSet, requestNumberNextRequest : in TpInt32) : void extendLifeTimeErr (sessionID : in TpSessionID, error : in TpChargingError) : void extendLifeTimeRes (sessionID : in TpSessionID, <del>SessionTimeLeft</del> <u>sessionTimeLeft</u> : in TpInt32) : void rateErr (sessionID : in TpSessionID, error : in TpChargingError) : void



```
rateRes (sessionID : in TpSessionID, rates : in TpPriceVolumeSet, validityTimeLeft : in TpDuration) : void
reserveAmountErr (sessionID : in TpSessionID, requestNumber : in TpInt32, error : in TpChargingError,
  requestNumberNextRequest : in TpInt32) : void
reserveAmountRes (sessionID : in TpSessionID, requestNumber : in TpInt32, reservedAmount : in
  TpChargingPrice, sessionTimeLeft : in TpInt32, requestNumberNextRequest : in TpInt32) : void
reserveUnitErr (sessionID : in TpSessionID, requestNumber : in TpInt32, error : in TpChargingError,
  requestNumberNextRequest : in TpInt32) : void
reserveUnitRes (sessionID : in TpSessionID, requestNumber : in TpInt32, reservedUnits : in TpVolumeSet,
  sessionTimeLeft : in TpInt32, requestNumberNextRequest : in TpInt32) : void
sessionEnded (sessionID : in TpSessionID, report : in TpSessionEndedCause) : void
```