

**The Mobile Payment Group**  
**Payment E-service**  
**- XML Specification –**  
**Version 1.0**

The present document has been created by the Mobile Payment Group and transferred 'as is' for further development to PayCircle only.

The present document has been accepted by the Mobile Payment Group members but not yet been subject to any approval process within PayCircle.

.

The Mobile Payment Group nor PayCircle accept any liability whatsoever for any use of this document nor for any act that may or may not be performed as a result of the contents of this document.

No licences are granted or implied unless explicitly stated in writing.

Mobile Payment Group: <http://www.paymentgroup.org>

PayCircle: <http://www.paycircle.org>

### ***Copyright Notification***

No part may be reproduced except as authorized by written permission.  
The copyright and the foregoing restriction extend to reproduction in all media.

© 2002, The Mobile Payment Group, PayCircle Inc.

All rights reserved.

TABLE OF CONTENTS

|       |                                       |     |
|-------|---------------------------------------|-----|
| 1     | PARTIES.....                          | 1   |
| 2     | Scope.....                            | 2   |
| 3     | Introduction .....                    | 2   |
| 4     | Translation Rules.....                | 3   |
| 4.1   | General.....                          | 3   |
| 4.2   | Synchronous, Asynchronous calls ..... | 3   |
| 4.3   | Return values .....                   | 3   |
| 4.4   | Instances mapping.....                | 3   |
| 4.5   | Error messages and Exceptions .....   | 4   |
| 5     | Sequence Diagrams.....                | 5   |
| 5.1   | Reservation Payments .....            | 5   |
| 6     | Schema Description.....               | 9   |
| 6.1   | Schema IpChargingSession.xsd.....     | 9   |
| 6.2   | Schema IpAppChargingSession.xsd.....  | 53  |
| 6.3   | Schema IpService.xsd.....             | 98  |
| 6.4   | Schema IpChargingManager.xsd .....    | 101 |
| 6.5   | Schema AllTypes.xsd.....              | 104 |
| 7     | Examples .....                        | 115 |
| 7.1   | Immediate Charge Example .....        | 115 |
| 7.2   | Further Examples .....                | 116 |
| 7.2.1 | reserveUnitRes().....                 | 116 |
| 7.2.2 | rateReq() .....                       | 116 |
| 7.2.3 | debitAmountRes() .....                | 117 |

## 1 PARTIES

**Add2Phone**, a company incorporated under the laws of Finland under company number LY1548935.5 and having its registered office in Kaisaniemenkatu 1 Ba 00100 Helsinki, Finland  
("Add2Phone")

**Digital Bridges Ltd**, an English company, having its principal place of business at 3 Pitreavie Court, Pitreavie Business park, Dunfermline, Fife KY11 8UU, UK  
("Digital Bridges")

**Hewlett Packard**  
("Hewlett Packard")

**Oy Radiolinja Ab**, a Finish company with as registered address :  
Tammasaarenlaituri 3, P.O. Box 500, FIN-00181 HELSINKI, Finland  
("Radiolinja")

**SIEMENS AG**, whose registered offices are in Berlin and Munich, Germany  
("Siemens");

**Springtoys Inc.**, a Finish company with its principal place of business at Erottajankatu 9 A, 00130 in Helsinki, Finland  
("Springtoys")

**Yomi Vision Ltd**, having its principal place of business at Kauppakatu 31, 40101 Jyvaskyl, Finland  
("Yomi")

## 2 Scope

This specification introduces and describes an XML schemas definition for a Payment e-service delivered over a web services infrastructure. The specification is based on ETSI DTS/SPAN-120070-12 specification, which is the result of a joint activity of 3GPP ([www.3gpp.org](http://www.3gpp.org)), ETSI ([www.etsi.org](http://www.etsi.org)), and Parlay ([www.parlay.org](http://www.parlay.org)). This original specification can be found here:

<http://docbox.etsi.org/tech-org/span/Open/Span12/Drafts>

## 3 Introduction

This document extends the DTS/SPAN-120070-12 to make the Open Service Access Charging API accessible over a web services infrastructure.

Electronic services (e-services for short) are the same as Web based services and Internet based services. There is nothing mystical about e-services: they are applications architected to be available via the Net, to complete tasks, solve problems, or conduct transactions. E-services can be used by people, businesses, and other e-services and can be accessed through wide range of intelligent, connected devices.

Web services are built to standards-based specifications and are registered and invoked using standard communication protocols. Web services are built using standards defined by the World-Wide Web Consortium (WC3) including HTTP and SOAP, as well as industry initiatives around eXtensible Markup Language (XML) definitions. Web services are registered and discovered using service description and discovery mechanisms defined by the UDDI.org consortium.

An e-service, or web service is invoked across the Internet after it has initially registered itself in a UDDI Public (or Private) Registry. Registration can either be through the submittal a correctly formatted Web Services Description Language (WSDL) XML document to the UDDI "service" registry, or through a web-based GUI into the UDDI registry (where available). Several Public UDDI v 1 registries are currently operational, run by Microsoft, IBM and in the near-future Hewlett-Packard. UDDI v2 will see the addition of "replication" functionality, so that web services registered in one registry are visible in other UDDI registries.

Once an e-service or web service has been registered, it can then be discovered and invoked by other web services or end-users. This is achieved by sending correctly formatted XML requests, in a Document Object Model (DOM) format, in a Simple Object Access Protocol (SOAP) message structure over HTTP.

Invocation of web services can also occur through other methods, for example using XML-RPC mechanisms. However, XML-SOAP would appear to be the most widely promoted invocation model, and has gained significant backing and support from within the computer industry.

Security mechanisms are applied using XML-DSIG (Digital Signature) and XKMS (XML-Key Management System) document structures.

A UDDI registry (Public or Private) will be the under-pinning for a Mobile Network Operator's (MNO's) Portal, and will contain entries for all the web services that can be invoked through the Portal. Note: there may well be more web services in the MNO-operated UDDI registry than are available in the Portal, this is due to the fact that some web services may comprise, or be built from other registered web services. The Mobile Payment e-service will be one of the many web services registered in the MNO's UDDI registry.

Other e-services or web services wanting to utilise the Payment e-service will initially discover the service by retrieving the Payment E-service WSDL XML document. A web service can then invoke Payment s-service functions by sending correctly formatted XML documents in a SOAP message structure, over HTTP to the Payment e-Service for processing.

Further definitions on web service implementation and deployment structures are defined in the associated "Payment web services: Implementation & Deployment Guide".

## 4 Translation Rules

### 4.1 General

The DTS/SPAN-120070-12, which is the basis for the current XML schemas specification, follows the object oriented approach. However, in XML there is no natural equivalent to interfaces or objects. The following approach has been taken when transferring the ETSI specification towards XML schemas:

- Interfaces are represented by URLs. In particular, *IpChargingManager* and *IpChargingSession* are represented as URLs, such as `http://some.host/ChargingManager` or `http://some.host/ChargingSession`.
- Object instances of a certain type (or interface) are represented as an Id-parameter within a URL, e.g. `http://ChargingManager?id=123456` represents a particular instance of the interface *IpChargingManager*.
- Interface methods are represented by XML elements. The method parameters are represented as sub-elements of the respective XML element.
- To invoke a method of an interface, a SOAP message is sent where the route information in the header points to the desired object interface and instance, while the body carries the XML element representing the desired method.

### 4.2 Synchronous, Asynchronous calls

In the DTS/SPAN-120070-12, which is built with CORBA in mind, some operations use callback interfaces to return operation results asynchronously.. In the DOM Model callback interfaces are not needed. The callback interfaces are therefore not reflected in the XML schemas. However, the information that is usually carried as parameters of callback methods, are now carried by the (synchronous) result message.

### 4.3 Return values

All functions that have a return value are modified according the rule below.

The return value of the function would be deleted and put in a new function called <function name>Res. There are only three functions of these type:

| Request function                   | New response function                 | Interface                |
|------------------------------------|---------------------------------------|--------------------------|
| <code>createChargingSession</code> | <code>CreateChargingSessionRes</code> | <i>IpChargingManager</i> |
| <code>getLifeTimeLeft</code>       | <code>GetLifeTimeLeftRes</code>       | <i>IpChargingSession</i> |
| <code>getUnitLeft</code>           | <code>GetUnitLeftRes</code>           |                          |

The other functions are not touched in their specification.

If you send a request, e.g. `creditAmountReq`, you get the response from the corresponding response function, e.g. `creditAmountResp`.

### 4.4 Instances mapping

To access the chargingManager you use an URL, like `payment.xyz.com/chargingManager`. To server multiple clients this address also contains an variable part. So your URL to access „your“ chargingManager looks something like

`payment.xyz.com/chargingManager?id=0987654321`.

In the `createChargingSessionRes` you get an URL to „your“ *IpChargingSession*. In all further requests you are using this URL. The URL is made of a fixed part ,e.g. `payment.xyz.com/ChargingSession`, and a random part thats specified your Session, e.g. `payment.xyz.com/ChargingSession?id=123457890`.

The other possibility was to use only the fixed part and separate the various session on the basis of extended information in the HTTP document. The use of the first method is much more elegant and uses fewer resources on the payment system.

#### 4.5 Error messages and Exceptions

All errors are reported with the specified Err functions. The errors are packed in a SOAP fault message. The mustUnderstand attribute must be set to 1.

Normally the error take place on the payment server at the processing of the request. In this case the SOAP header provide the string **Server** in the **faultcode** attribute. The faultstring could be set to the String **Server Error**. In the detail section of the fault message the appropriate function should be appear, e.g creditAmountErr. If the server could not process the client message, because of an false XML parsing error, the faultcode is set to Client. The Portal E-Service should then not resend the message without modification. Exceptions are mapped likewise to Fault-messages.

## 5 Sequence Diagrams

### 5.1 Reservation Payments

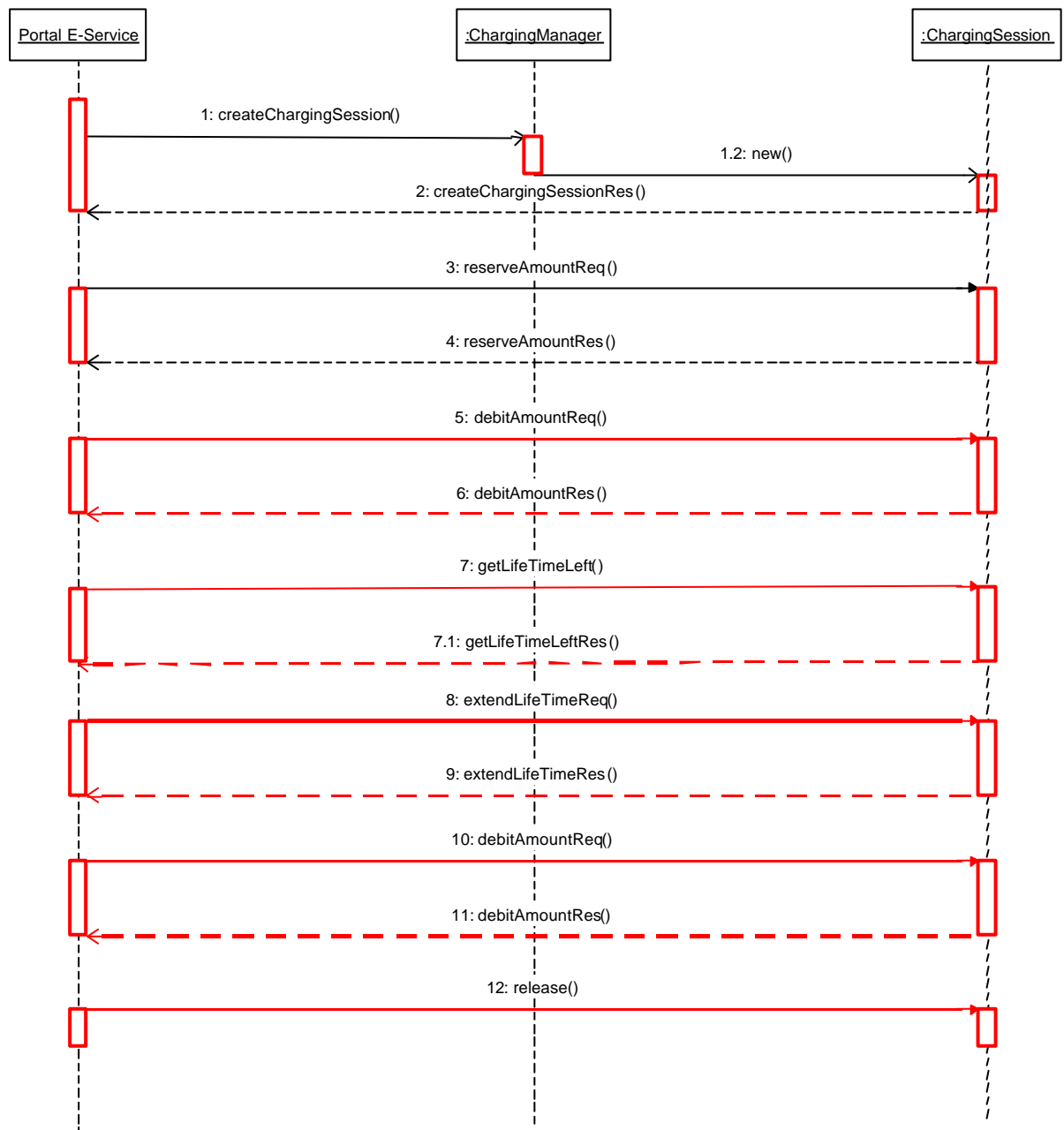


Diagram 1



The sequence diagram illustrates how to request a reservation and how to charge a user from the reserved amount, for instance to charge a user for a streamed video which lasts 10 minutes and costs a total of \$2.00. The operations and interfaces that do not provide rating are employed throughout this sequence diagram.

We assume the application has already discovered the content based charging SCF. As a result, the application received an object reference pointing to an object that implements the IpChargingManager interface.

1. The application opens a charging session
- 1.2. In this case a new object is used.
2. The unique session ID is returned.
3. The application requests the reservation of \$2.00. Assuming the criteria for requesting a reservation are met (the application provider has permission to charge the requested amount, the charged user has agreed to pay the requested amount), the amount is reserved in the session. At this point, the application provider knows that the network operator will accept later debit requests up to the reserved amount. So, the application may start serving the user, for instance by sending the video stream.
4. The successful reservation is reported back to the application.  
After half of the video has been sent to the user, the application may choose to capture half of the price already:
5. The application requests to debit \$1.00 from the reservation.
6. The successful debit is reported back to the application.
7. The application ask for the remaining lifetime of the reservation.  
7.1 the application receives the remaining life time and check if it will cover the remaining 5 minutes of video. Let us assume, it does not.
8. The application asks the IpChargingSession object to extend the lifetime of the reservation.
9. Assuming that the application provider is allowed to keep reservations open for longer than 10 minutes, the extendLifeTimeReq() will be honoured and confirmed properly.
- 10.. When the complete video has been transmitted to the user without errors, the application charges another \$1.00.
11. The IpChargingSession object acknowledges the successful debit to the Portal E-Service
12. Since the service is complete, the application frees all resources associated with the reservation and session. The operations which handle units are used exactly the same, except that the amount of application usage is indicated instead of a price.

## Immediate Charges

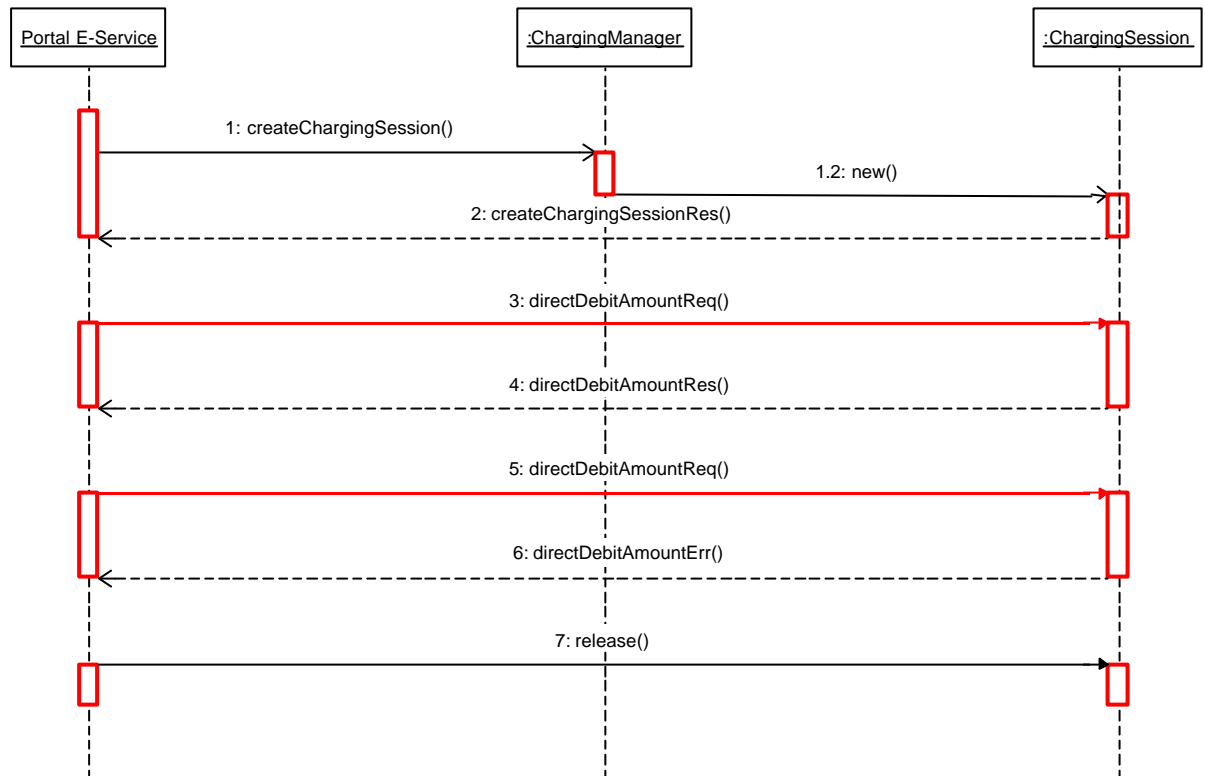


Diagram 2

This sequence diagram illustrates how immediate charging is used. Assume a WAP gateway that charges the user \$0.01 per requested URL. Since it is acceptable to loose one tick worth \$0.01, no prior reservations are made. The WAP gateway sends an immediate debit for each requested URL, and should a payment have as result failure, the user is disconnected.

1. The application orders the creation of a session.
2. The unique session ID is returned.
3. The application requests to charge the user \$0.01.
4. The payment is acknowledged.
5. The application requests to charge the user \$0.01.
6. The payment is reported to fail.
7. The application releases the session

The operations which handle units are used exactly the same, except that the amount of application usage is indicated instead of a price

## 6 Schema Description

### 6.1 Schema IpChargingSession.xsd

schema location: IpChargingSession.xsd

Elements

[creditAmountReq](#)  
[creditUnitReq](#)  
[debitAmountReq](#)  
[debitUnitreq](#)  
[directCreditAmountRe](#)  
[q](#)  
[directDebitAmountReq](#)  
[directDebitUnitReq](#)  
[directRateReq](#)  
[extendedLifeTimeReq](#)  
[getAmountLeft](#)  
[getLifeTimeLeftReq](#)  
[getLifeTimeLeftResp](#)  
[getUnitLeftReq](#)  
[getUnitLeftResp](#)  
[rateReq](#)  
[release](#)  
[reservedAmountReq](#)  
[reserveUnitReq](#)

schema location: AllTypes.xsd

Complex types

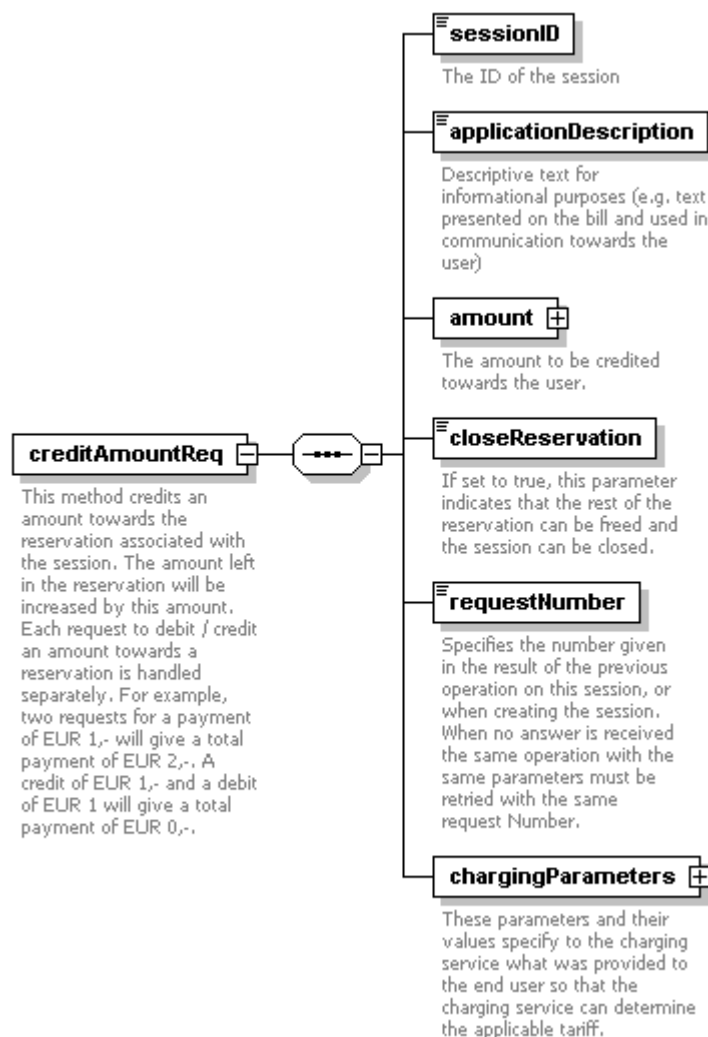
[TpAmount](#)  
[TpChargingParameter](#)  
[TpChargingParameterSe](#)  
[t](#)  
[TpChargingPrice](#)  
[TpChargingSessionID](#)  
[TpCorrelationID](#)  
[TpMerchantAccountID](#)  
[TpPriceVolume](#)  
[TpPriceVolumeSet](#)  
  
[TpVolume](#)  
[TpVolumeSet](#)

Simple types

[IpAppAmountSessionRef](#)  
[IpChargingSessionRef](#)  
[IpInterfaceRef](#)  
  
[TpAddress](#)  
[TpBoolean](#)  
[TpChargingError](#)  
[TpChargingParameterID](#)  
[TpChargingParameterValue](#)  
[TpChargingParameterValueTyp](#)  
[e](#)  
[TpChargingSessionIdRef](#)  
[TpCorrelationType](#)  
[TpInt32](#)  
[TpSessionID](#)  
[TpString](#)  
[TpUnitID](#)

element **creditAmountReq**

diagram

children [sessionID applicationDescription amount closeReservation requestNumber chargingParameters](#)

annotation documentation

This method credits an amount towards the reservation associated with the session. The amount left in the reservation will be increased by this amount. Each request to debit / credit an amount towards a reservation is handled separately. For example, two requests for a payment of EUR 1,- will give a total payment of EUR 2,-. A credit of EUR 1,- and a debit of EUR 1 will give a total payment of EUR 0,-.

source

```
<xsd:element name="creditAmountReq">
  <xsd:annotation>
    <xsd:documentation>This method credits an amount towards the reservation associated with the
    session. The amount left in the reservation will be increased by this amount. Each request to debit /
    credit an amount towards a reservation is handled separately. For example, two requests for a
    payment of EUR 1,- will give a total payment of EUR 2,-. A credit of EUR 1,- and a debit of EUR 1
    will give a total payment of EUR 0,-.</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>The ID of the session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="applicationDescription" type="TpString">
        <xsd:annotation>
```

```

    <xsd:documentation>Descriptive text for informational purposes (e.g. text presented on the bill
    and used in communication towards the user)</xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="amount" type="TpChargingPrice">
    <xsd:annotation>
      <xsd:documentation>The amount to be credited towards the user.</xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="closeReservation" type="TpBoolean">
    <xsd:annotation>
      <xsd:documentation>If set to true, this parameter indicates that the rest of the reservation can be
      freed and the session can be closed.</xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="requestNumber" type="TpInt32">
    <xsd:annotation>
      <xsd:documentation>Specifies the number given in the result of the previous operation on this
      session, or when creating the session. When no answer is received the same operation with the same
      parameters must be retried with the same request Number.</xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:element name="chargingParameters" type="TpChargingParameterSet">
    <xsd:annotation>
      <xsd:documentation>These parameters and their values specify to the charging service what
      was provided to the end user so that the charging service can determine the applicable
      tariff.</xsd:documentation>
    </xsd:annotation>
  </xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

element **creditAmountReq/sessionID**

diagram

type [TpSessionID](#)

annotation The ID of the session

documentation

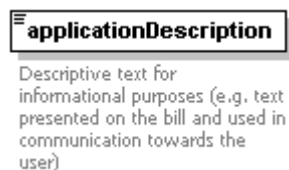
```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **creditAmountReq/applicationDescription**

diagram

type [TpString](#)

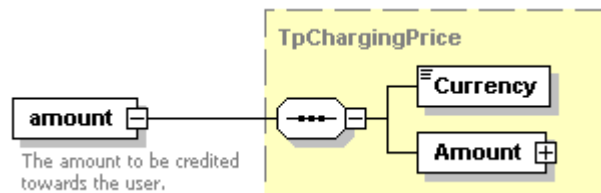
annotation Descriptive text for informational purposes (e.g. text presented on the bill and used in communication towards the user)

documentation

source `<xsd:element name="applicationDescription" type="TpString">`  
`<xsd:annotation>`  
`<xsd:documentation>Descriptive text for informational purposes (e.g. text presented on the bill and`  
`used in communication towards the user)</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

#### element **creditAmountReq/amount**

diagram



type [TpChargingPrice](#)

children [Currency](#) [Amount](#)

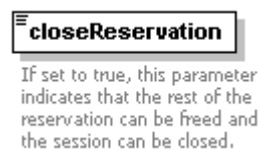
annotation The amount to be credited towards the user.

documentation

source `<xsd:element name="amount" type="TpChargingPrice">`  
`<xsd:annotation>`  
`<xsd:documentation>The amount to be credited towards the user.</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

#### element **creditAmountReq/closeReservation**

diagram



type [TpBoolean](#)

annotation If set to true, this parameter indicates that the rest of the reservation can be freed and the session can be closed.

documentation

source `<xsd:element name="closeReservation" type="TpBoolean">`  
`<xsd:annotation>`  
`<xsd:documentation>If set to true, this parameter indicates that the rest of the reservation can be`  
`freed and the session can be closed.</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

element **creditAmountReq/requestNumber**

diagram



Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same request Number.

type [TpInt32](#)

annotation

documentation

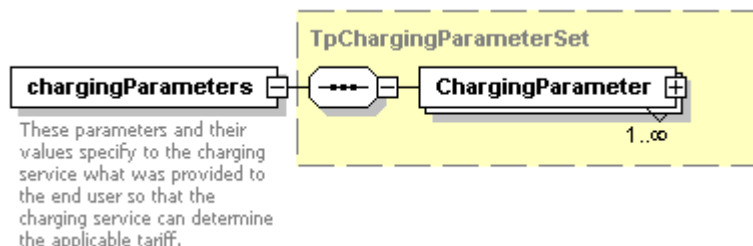
Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same request Number.

source 

```
<xsd:element name="requestNumber" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same request Number.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **creditAmountReq/chargingParameters**

diagram



These parameters and their values specify to the charging service what was provided to the end user so that the charging service can determine the applicable tariff.

type [TpChargingParameterSet](#)children [ChargingParameter](#)

annotation

documentation

These parameters and their values specify to the charging service what was provided to the end user so that the charging service can determine the applicable tariff.

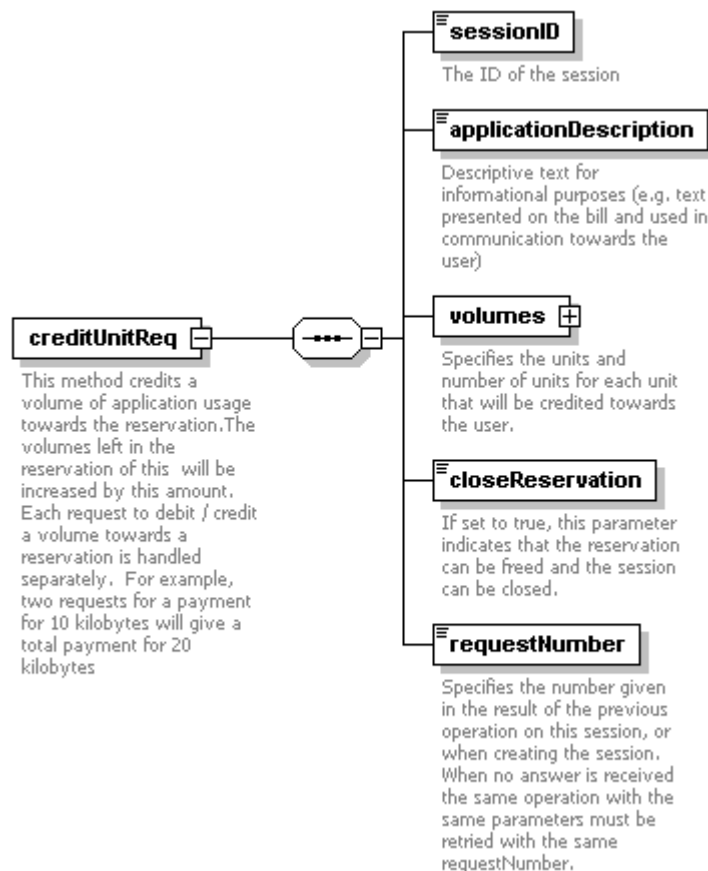
source 

```
<xsd:element name="chargingParameters" type="TpChargingParameterSet">
  <xsd:annotation>
    <xsd:documentation>These parameters and their values specify to the charging service what was provided to the end user so that the charging service can determine the applicable tariff.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```



element **creditUnitReq**

diagram

children [sessionID](#) [applicationDescription](#) [volumes](#) [closeReservation](#) [requestNumber](#)

annotation

documentation

This method credits a volume of application usage towards the reservation. The volumes left in the reservation of this will be increased by this amount. Each request to debit / credit a volume towards a reservation is handled separately. For example, two requests for a payment for 10 kilobytes will give a total payment for 20 kilobytes

source

```
<xsd:element name="creditUnitReq">
  <xsd:annotation>
    <xsd:documentation>This method credits a volume of application usage towards the reservation. The
    volumes left in the reservation of this will be increased by this amount. Each request to debit / credit a
    volume towards a reservation is handled separately. For example, two requests for a payment for 10
    kilobytes will give a total payment for 20 kilobytes</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>The ID of the session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="applicationDescription" type="TpString">
        <xsd:annotation>
          <xsd:documentation>Descriptive text for informational purposes (e.g. text presented on the bill
          and used in communication towards the user)</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="volumes" type="TpVolumeSet">
        <xsd:annotation>
```

```

    <xsd:documentation>Specifies the units and number of units for each unit that will be credited
    towards the user.</xsd:documentation>
    <xsd:annotation>
    <xsd:element>
    <xsd:element name="closeReservation" type="TpBoolean">
    <xsd:annotation>
    <xsd:documentation>If set to true, this parameter indicates that the reservation can be freed and
    the session can be closed.</xsd:documentation>
    </xsd:annotation>
    </xsd:element>
    <xsd:element name="requestNumber" type="TpInt32">
    <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
    session, or when creating the session. When no answer is received the same operation with the same
    parameters must be retried with the same requestNumber.</xsd:documentation>
    </xsd:annotation>
    </xsd:element>
    </xsd:sequence>
    </xsd:complexType>
  </xsd:element>

```

element **creditUnitReq/sessionID**

diagram

type [TpSessionID](#)

annotation The ID of the session

documentation

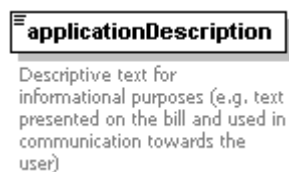
```

source <xsd:element name="sessionID" type="TpSessionID">
    <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
    </xsd:annotation>
  </xsd:element>

```

element **creditUnitReq/applicationDescription**

diagram

type [TpString](#)

annotation Descriptive text for informational purposes (e.g. text presented on the bill and used in communication towards the user)

documentation

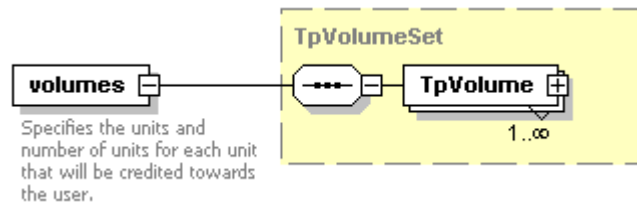
```

source <xsd:element name="applicationDescription" type="TpString">
    <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes (e.g. text presented on the bill and
    used in communication towards the user)</xsd:documentation>
    </xsd:annotation>
  </xsd:element>

```

element **creditUnitReq/volumes**

diagram

type [TpVolumeSet](#)children [TpVolume](#)

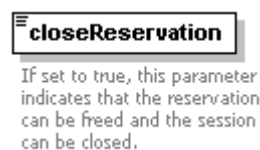
annotation documentation  
Specifies the units and number of units for each unit that will be credited towards the user.

source 

```
<xsd:element name="volumes" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Specifies the units and number of units for each unit that will be credited
    towards the user.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **creditUnitReq/closeReservation**

diagram

type [TpBoolean](#)

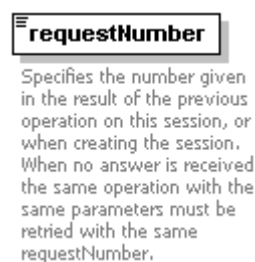
annotation documentation  
If set to true, this parameter indicates that the reservation can be freed and the session can be closed.

source 

```
<xsd:element name="closeReservation" type="TpBoolean">
  <xsd:annotation>
    <xsd:documentation>If set to true, this parameter indicates that the reservation can be freed and the
    session can be closed.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **creditUnitReq/requestNumber**

diagram

type [TpInt32](#)

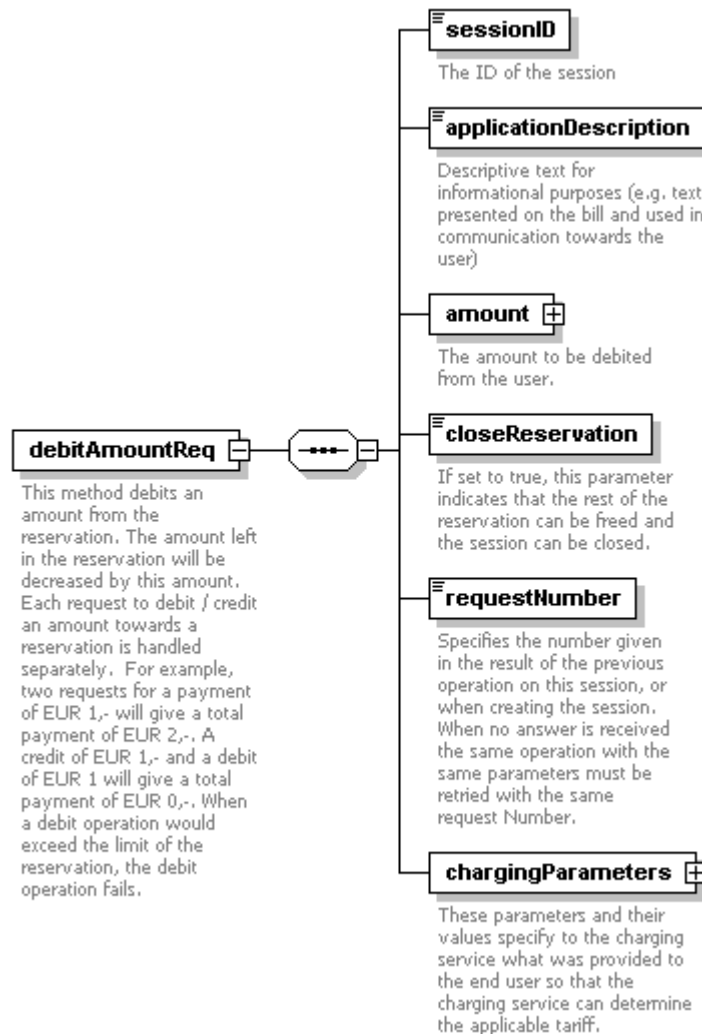
annotation documentation  
Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried

with the same requestNumber.

```
source <xsd:element name="requestNumber" type="Tplint32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
    session, or when creating the session. When no answer is received the same operation with the same
    parameters must be retried with the same requestNumber.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

#### element **debitAmountReq**

diagram



children [sessionID](#) [applicationDescription](#) [amount](#) [closeReservation](#) [requestNumber](#) [chargingParameters](#)

annotation documentation

This method debits an amount from the reservation. The amount left in the reservation will be decreased by this amount. Each request to debit / credit an amount towards a reservation is handled separately. For example, two requests for a payment of EUR 1,- will give a total payment of EUR 2,-. A credit of EUR 1,- and a debit of EUR 1 will give a total payment of EUR 0,-. When a debit operation would exceed the limit of the reservation, the debit operation fails.

```
source <xsd:element name="debitAmountReq">
  <xsd:annotation>
    <xsd:documentation>This method debits an amount from the reservation. The amount left in the
```

reservation will be decreased by this amount. Each request to debit / credit an amount towards a reservation is handled separately. For example, two requests for a payment of EUR 1,- will give a total payment of EUR 2,-. A credit of EUR 1,- and a debit of EUR 1 will give a total payment of EUR 0,-. When a debit operation would exceed the limit of the reservation, the debit operation fails.

```

</xsd:documentation>
</xsd:annotation>
<xsd:complexType>
  <xsd:sequence>
    <xsd:element name="sessionID" type="TpSessionID">
      <xsd:annotation>
        <xsd:documentation>The ID of the session</xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="applicationDescription" type="TpString">
      <xsd:annotation>
        <xsd:documentation>Descriptive text for informational purposes (e.g. text presented on the bill
and used in communication towards the user)</xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="amount" type="TpChargingPrice">
      <xsd:annotation>
        <xsd:documentation>The amount to be debited from the user.</xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="closeReservation" type="TpBoolean">
      <xsd:annotation>
        <xsd:documentation>If set to true, this parameter indicates that the rest of the reservation can be
freed and the session can be closed.</xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="requestNumber" type="TpInt32">
      <xsd:annotation>
        <xsd:documentation>Specifies the number given in the result of the previous operation on this
session, or when creating the session. When no answer is received the same operation with the same
parameters must be retried with the same request Number.</xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="chargingParameters" type="TpChargingParameterSet">
      <xsd:annotation>
        <xsd:documentation>These parameters and their values specify to the charging service what
was provided to the end user so that the charging service can determine the applicable
tariff.</xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
</xsd:element>

```

#### element **debitAmountReq/sessionID**

diagram



type [TpSessionID](#)

annotation The ID of the session

documentation

source

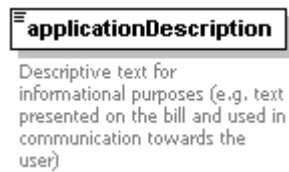
```

<xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **debitAmountReq/applicationDescription**

diagram

type [TpString](#)

annotation

Descriptive text for informational purposes (e.g. text presented on the bill and used in communication towards the user)

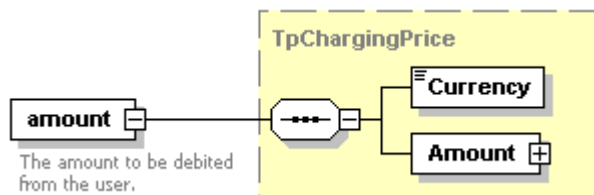
documentation

source

```
<xsd:element name="applicationDescription" type="TpString">
  <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes (e.g. text presented on the bill and
    used in communication towards the user)</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **debitAmountReq/amount**

diagram

type [TpChargingPrice](#)children [Currency](#) [Amount](#)

annotation

The amount to be debited from the user.

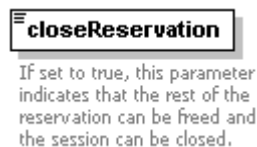
documentation

source

```
<xsd:element name="amount" type="TpChargingPrice">
  <xsd:annotation>
    <xsd:documentation>The amount to be debited from the user.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **debitAmountReq/closeReservation**

diagram

type [TpBoolean](#)

annotation

If set to true, this parameter indicates that the rest of the reservation can be freed and the session can be closed.

documentation

source

```
<xsd:element name="closeReservation" type="TpBoolean">
```

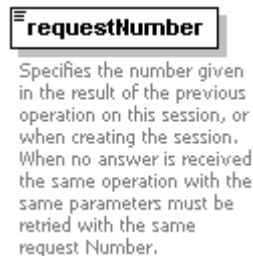
```

<xsd:annotation>
  <xsd:documentation>If set to true, this parameter indicates that the rest of the reservation can be
  freed and the session can be closed.</xsd:documentation>
</xsd:annotation>
</xsd:element>

```

#### element **debitAmountReq/requestNumber**

diagram



type [TpInt32](#)

annotation

documentation

Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same request Number.

source

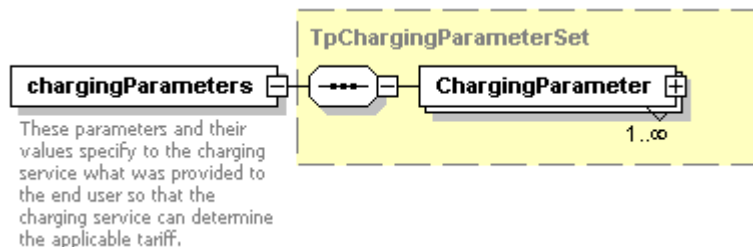
```

<xsd:element name="requestNumber" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
    session, or when creating the session. When no answer is received the same operation with the same
    parameters must be retried with the same request Number.</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **debitAmountReq/chargingParameters**

diagram



type [TpChargingParameterSet](#)

children [ChargingParameter](#)

annotation

documentation

These parameters and their values specify to the charging service what was provided to the end user so that the charging service can determine the applicable tariff.

source

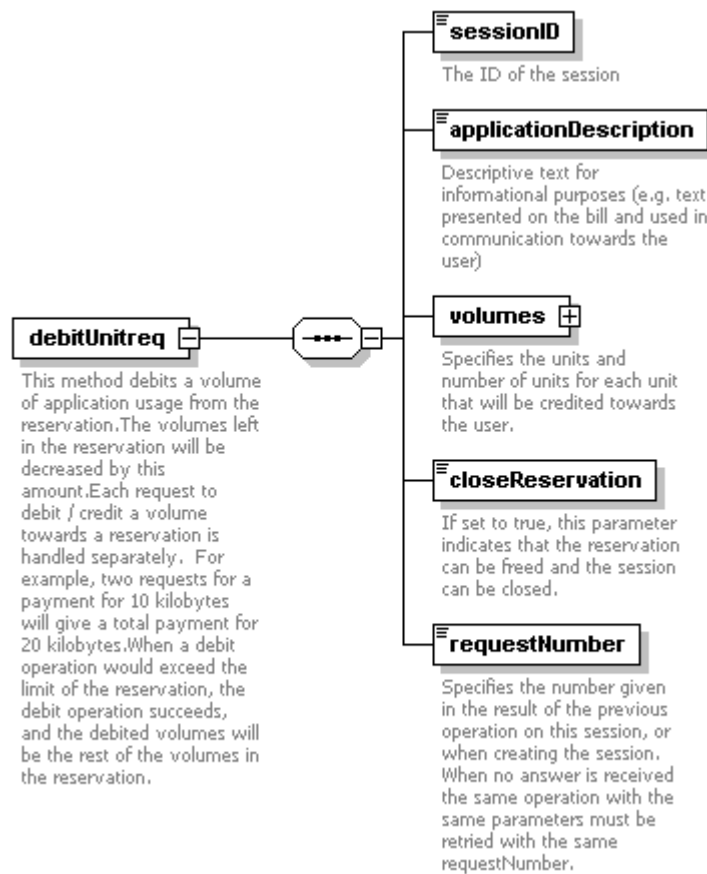
```

<xsd:element name="chargingParameters" type="TpChargingParameterSet">
  <xsd:annotation>
    <xsd:documentation>These parameters and their values specify to the charging service what was
    provided to the end user so that the charging service can determine the applicable
    tariff.</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **debitUnitreq**

diagram

children [sessionID](#) [applicationDescription](#) [volumes](#) [closeReservation](#) [requestNumber](#)

annotation

documentation

This method debits a volume of application usage from the reservation. The volumes left in the reservation will be decreased by this amount. Each request to debit / credit a volume towards a reservation is handled separately. For example, two requests for a payment for 10 kilobytes will give a total payment for 20 kilobytes. When a debit operation would exceed the limit of the reservation, the debit operation succeeds, and the debited volumes will be the rest of the volumes in the reservation.

source

```
<xsd:element name="debitUnitreq">
  <xsd:annotation>
    <xsd:documentation>This method debits a volume of application usage from the reservation. The
    volumes left in the reservation will be decreased by this amount. Each request to debit / credit a volume
    towards a reservation is handled separately. For example, two requests for a payment for 10
    kilobytes will give a total payment for 20 kilobytes. When a debit operation would exceed the limit of the
    reservation, the debit operation succeeds, and the debited volumes will be the rest of the volumes in
    the reservation.</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>The ID of the session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="applicationDescription" type="TpString">
        <xsd:annotation>
          <xsd:documentation>Descriptive text for informational purposes (e.g. text presented on the bill
          and used in communication towards the user)</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```



```

</xsd:element>
<xsd:element name="volumes" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Specifies the units and number of units for each unit that will be credited
    towards the user.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="closeReservation" type="TpBoolean">
  <xsd:annotation>
    <xsd:documentation>If set to true, this parameter indicates that the reservation can be freed and
    the session can be closed.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="requestNumber" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
    session, or when creating the session. When no answer is received the same operation with the same
    parameters must be retried with the same requestNumber.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

element **debitUnitreq/sessionID**

diagram

type [TpSessionID](#)

annotation The ID of the session

documentation

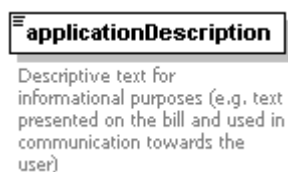
```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **debitUnitreq/applicationDescription**

diagram

type [TpString](#)

annotation Descriptive text for informational purposes (e.g. text presented on the bill and used in communication towards the user)

documentation

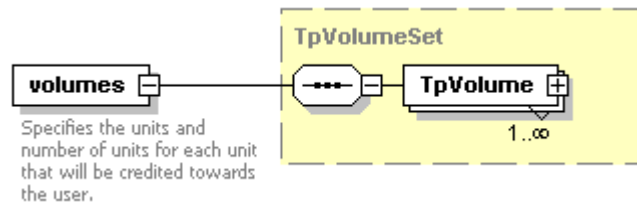
```

source <xsd:element name="applicationDescription" type="TpString">
  <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes (e.g. text presented on the bill and
    used in communication towards the user)</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **debitUnitreq/volumes**

diagram

type [TpVolumeSet](#)children [TpVolume](#)

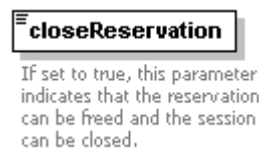
annotation documentation  
Specifies the units and number of units for each unit that will be credited towards the user.

source 

```
<xsd:element name="volumes" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Specifies the units and number of units for each unit that will be credited
    towards the user.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **debitUnitreq/closeReservation**

diagram

type [TpBoolean](#)

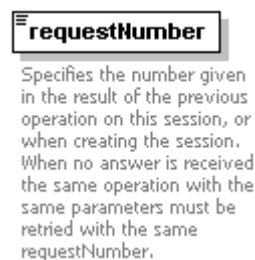
annotation documentation  
If set to true, this parameter indicates that the reservation can be freed and the session can be closed.

source 

```
<xsd:element name="closeReservation" type="TpBoolean">
  <xsd:annotation>
    <xsd:documentation>If set to true, this parameter indicates that the reservation can be freed and the
    session can be closed.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **debitUnitreq/requestNumber**

diagram

type [TpInt32](#)

annotation documentation  
Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried

with the same requestNumber.

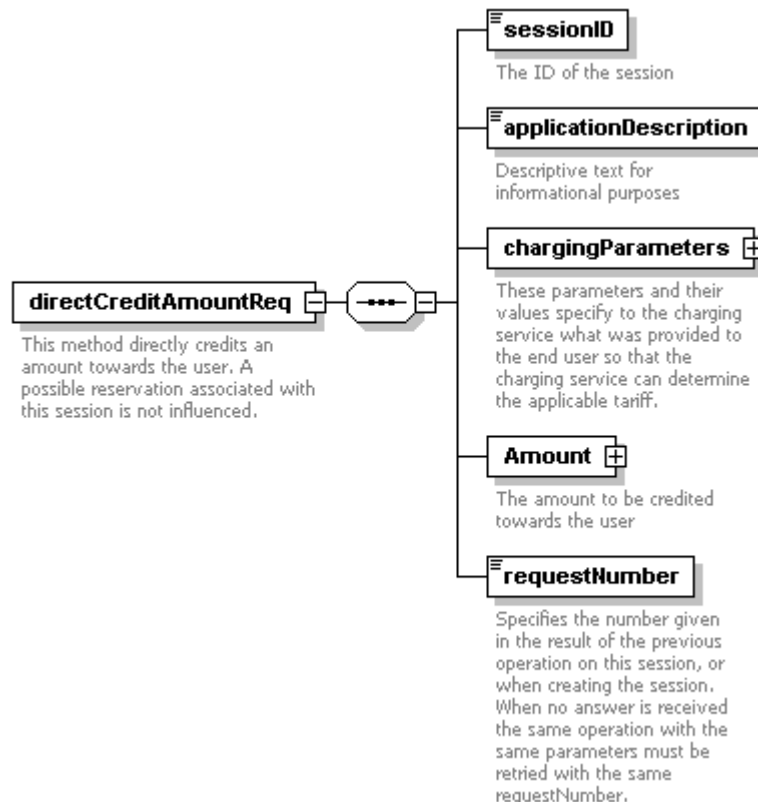
```

source <xsd:element name="requestNumber" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
    session, or when creating the session. When no answer is received the same operation with the same
    parameters must be retried with the same requestNumber.</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **directCreditAmountReq**

diagram



children [sessionID](#) [applicationDescription](#) [chargingParameters](#) [Amount](#) [requestNumber](#)

annotation documentation  
This method directly credits an amount towards the user. A possible reservation associated with this session is not influenced.

```

source <xsd:element name="directCreditAmountReq">
  <xsd:annotation>
    <xsd:documentation>This method directly credits an amount towards the user. A possible
    reservation associated with this session is not influenced.</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>The ID of the session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="applicationDescription" type="TpString">
        <xsd:annotation>
          <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="chargingParameters" type="TpChargingParameters">
        <xsd:annotation>
          <xsd:documentation>These parameters and their values specify to the charging
          service what was provided to the end user so that the charging service can
          determine the applicable tariff.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="Amount" type="TpAmount">
        <xsd:annotation>
          <xsd:documentation>The amount to be credited towards the user</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumber" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>Specifies the number given in the result of the previous
          operation on this session, or when creating the session. When no answer is
          received the same operation with the same parameters must be retried with
          the same requestNumber.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

```

</xsd:annotation>
</xsd:element>
<xsd:element name="chargingParameters" type="TpChargingParameterSet">
  <xsd:annotation>
    <xsd:documentation>These parameters and their values specify to the charging service what
was provided to the end user so that the charging service can determine the applicable
tariff.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="Amount" type="TpChargingPrice">
  <xsd:annotation>
    <xsd:documentation>The amount to be credited towards the user</xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="requestNumber" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
session, or when creating the session. When no answer is received the same operation with the same
parameters must be retried with the same requestNumber.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

#### element **directCreditAmountReq/sessionID**

diagram



type [TpSessionID](#)

annotation The ID of the session

documentation

source

```

<xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **directCreditAmountReq/applicationDescription**

diagram



type [TpString](#)

annotation Descriptive text for informational purposes

documentation

source

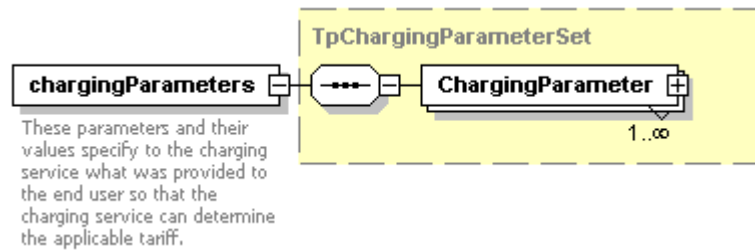
```

<xsd:element name="applicationDescription" type="TpString">
  <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **directCreditAmountReq/chargingParameters**

diagram

type [TpChargingParameterSet](#)children [ChargingParameter](#)

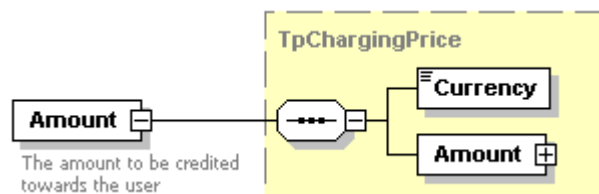
annotation documentation  
 These parameters and their values specify to the charging service what was provided to the end user so that the charging service can determine the applicable tariff.

source 

```
<xsd:element name="chargingParameters" type="TpChargingParameterSet">
  <xsd:annotation>
    <xsd:documentation>These parameters and their values specify to the charging service what was
    provided to the end user so that the charging service can determine the applicable
    tariff.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **directCreditAmountReq/Amount**

diagram

type [TpChargingPrice](#)children [Currency](#) [Amount](#)

annotation documentation  
 The amount to be credited towards the user

source 

```
<xsd:element name="Amount" type="TpChargingPrice">
  <xsd:annotation>
    <xsd:documentation>The amount to be credited towards the user</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **directCreditAmountReq/requestNumber**

diagram

**requestNumber**

Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.

type [TPlnt32](#)

annotation

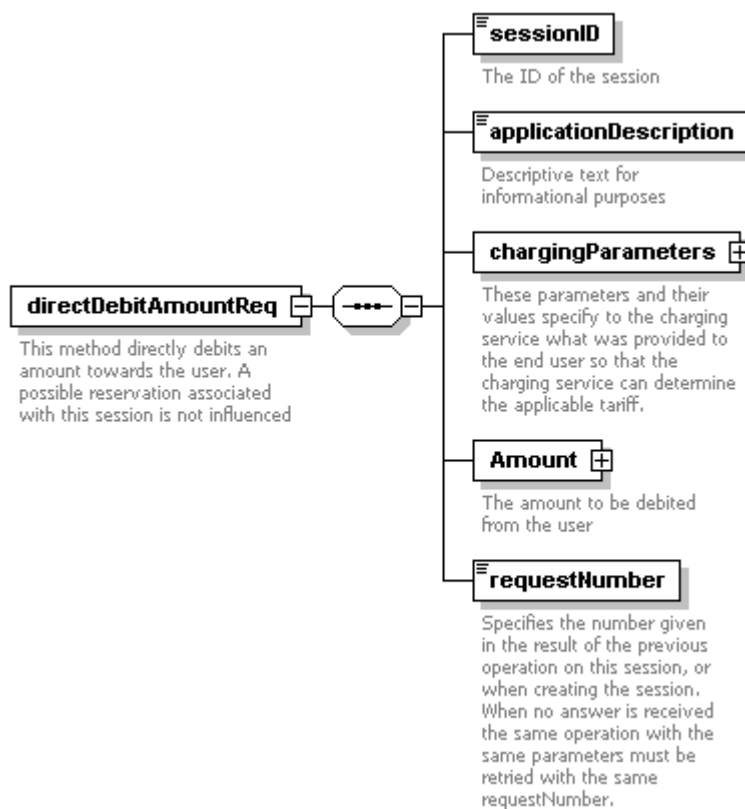
documentation

Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.

source `<xsd:element name="requestNumber" type="TPlnt32">`  
`<xsd:annotation>`  
`<xsd:documentation>`Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.`</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

element **directDebitAmountReq**

diagram

children [sessionID](#) [applicationDescription](#) [chargingParameters](#) [Amount](#) [requestNumber](#)

annotation

documentation

This method directly debits an amount towards the user. A possible reservation associated with this session is not influenced

```

source <xsd:element name="directDebitAmountReq">
  <xsd:annotation>
    <xsd:documentation>This method directly debits an amount towards the user. A possible reservation
associated with this session is not influenced</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>The ID of the session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="applicationDescription" type="TpString">
        <xsd:annotation>
          <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="chargingParameters" type="TpChargingParameterSet">
        <xsd:annotation>
          <xsd:documentation>These parameters and their values specify to the charging service what
was provided to the end user so that the charging service can determine the applicable
tariff.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="Amount" type="TpChargingPrice">
        <xsd:annotation>
          <xsd:documentation>The amount to be debited from the user</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumber" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>Specifies the number given in the result of the previous operation on this
session, or when creating the session. When no answer is received the same operation with the same
parameters must be retried with the same requestNumber.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

#### element **directDebitAmountReq/sessionID**

diagram



type

[TpSessionID](#)

annotation

The ID of the session

documentation

```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **directDebitAmountReq/applicationDescription**

diagram

type [TpString](#)

annotation

Descriptive text for informational purposes

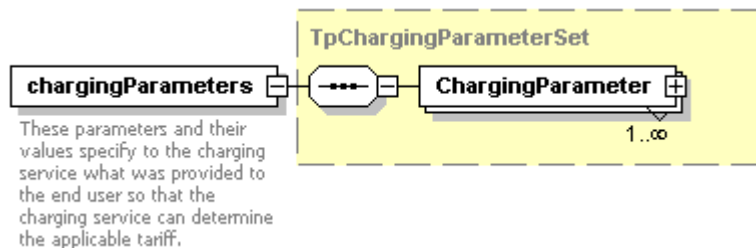
documentation

source 

```
<xsd:element name="applicationDescription" type="TpString">
  <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **directDebitAmountReq/chargingParameters**

diagram

type [TpChargingParameterSet](#)children [ChargingParameter](#)

annotation

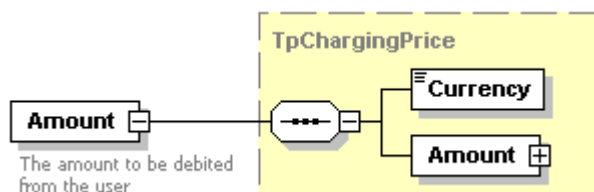
documentation  
These parameters and their values specify to the charging service what was provided to the end user so that the charging service can determine the applicable tariff.

source 

```
<xsd:element name="chargingParameters" type="TpChargingParameterSet">
  <xsd:annotation>
    <xsd:documentation>These parameters and their values specify to the charging service what was provided to the end user so that the charging service can determine the applicable tariff.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **directDebitAmountReq/Amount**

diagram

type [TpChargingPrice](#)children [Currency](#) [Amount](#)

annotation

The amount to be debited from the user

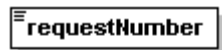
documentation



source `<xsd:element name="Amount" type="TpChargingPrice">`  
`<xsd:annotation>`  
`<xsd:documentation>The amount to be debited from the user</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

#### element **directDebitAmountReq/requestNumber**

diagram



Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.

type [TpInt32](#)

annotation

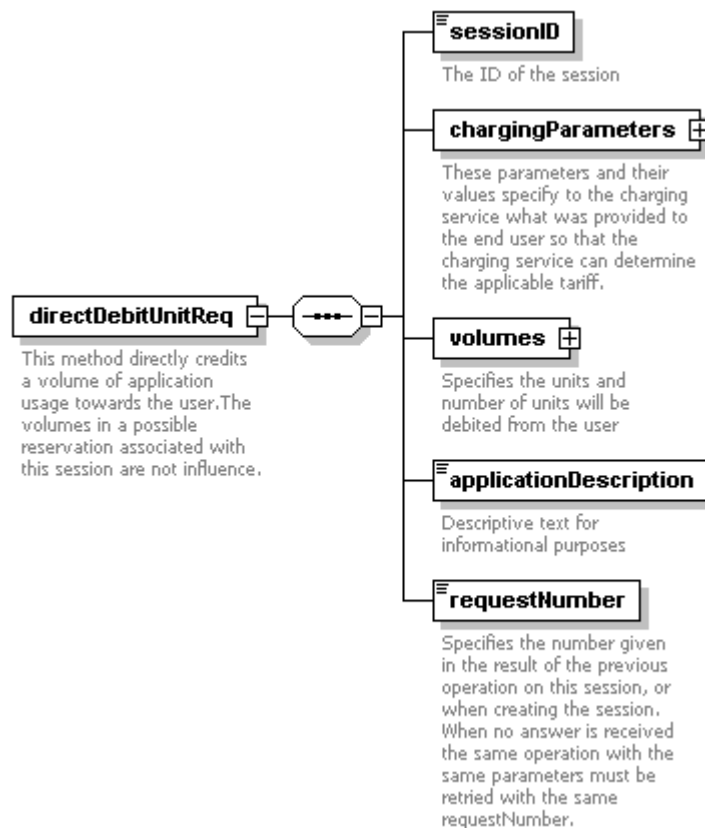
documentation

Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.

source `<xsd:element name="requestNumber" type="TpInt32">`  
`<xsd:annotation>`  
`<xsd:documentation>Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

element **directDebitUnitReq**

diagram

children [sessionID](#) [chargingParameters](#) [volumes](#) [applicationDescription](#) [requestNumber](#)

annotation

This method directly credits a volume of application usage towards the user. The volumes in a possible reservation associated with this session are not influence.

documentation

```

source <xsd:element name="directDebitUnitReq">
  <xsd:annotation>
    <xsd:documentation>This method directly credits a volume of application usage towards the
    user. The volumes in a possible reservation associated with this session are not
    influence.</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>The ID of the session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="chargingParameters" type="TpChargingParameterSet">
        <xsd:annotation>
          <xsd:documentation>These parameters and their values specify to the charging service what
          was provided to the end user so that the charging service can determine the applicable
          tariff.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="volumes" type="TpVolumeSet">
        <xsd:annotation>
          <xsd:documentation>Specifies the units and number of units will be debited from the
          user</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
  
```

```

</xsd:element>
<xsd:element name="applicationDescription" type="TpString">
  <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="requestNumber" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
session, or when creating the session. When no answer is received the same operation with the same
parameters must be retried with the same requestNumber.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

#### element **directDebitUnitReq/sessionID**

diagram



type [TpSessionID](#)

annotation The ID of the session

documentation

source

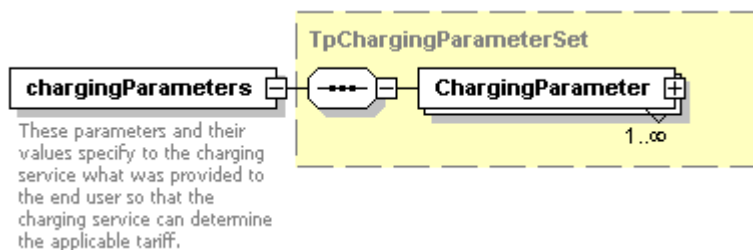
```

<xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **directDebitUnitReq/chargingParameters**

diagram



type [TpChargingParameterSet](#)

children [ChargingParameter](#)

annotation These parameters and their values specify to the charging service what was provided to the end user so that the charging service can determine the applicable tariff.

documentation

source

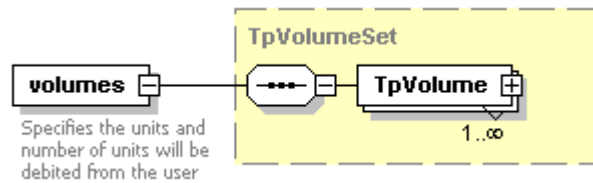
```

<xsd:element name="chargingParameters" type="TpChargingParameterSet">
  <xsd:annotation>
    <xsd:documentation>These parameters and their values specify to the charging service what was
provided to the end user so that the charging service can determine the applicable
tariff.</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **directDebitUnitReq/volumes**

diagram

type [TpVolumeSet](#)children [TpVolume](#)

annotation documentation  
Specifies the units and number of units will be debited from the user

source 

```
<xsd:element name="volumes" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Specifies the units and number of units will be debited from the
user</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **directDebitUnitReq/applicationDescription**

diagram

type [TpString](#)

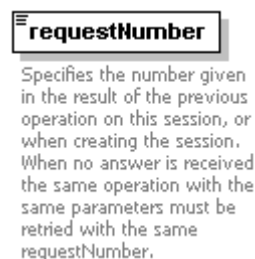
annotation documentation  
Descriptive text for informational purposes

source 

```
<xsd:element name="applicationDescription" type="TpString">
  <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **directDebitUnitReq/requestNumber**

diagram

type [TpInt32](#)

annotation documentation  
Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.

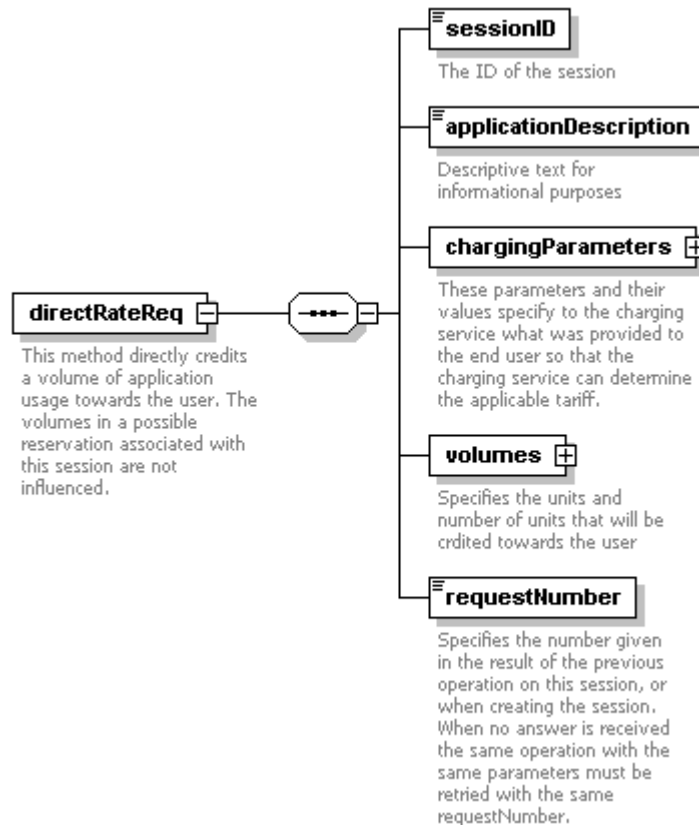
```

source <xsd:element name="requestNumber" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
    session, or when creating the session. When no answer is received the same operation with the same
    parameters must be retried with the same requestNumber.</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

### element **directRateReq**

diagram



children [sessionID](#) [applicationDescription](#) [chargingParameters](#) [volumes](#) [requestNumber](#)

annotation documentation  
This method directly credits a volume of application usage towards the user. The volumes in a possible reservation associated with this session are not influenced.

```

source <xsd:element name="directRateReq">
  <xsd:annotation>
    <xsd:documentation>This method directly credits a volume of application usage towards the user.
    The volumes in a possible reservation associated with this session are not
    influenced.</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>The ID of the session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="applicationDescription" type="TpString">
        <xsd:annotation>
          <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

```

</xsd:element>
<xsd:element name="chargingParameters" type="TpChargingParameterSet">
  <xsd:annotation>
    <xsd:documentation>These parameters and their values specify to the charging service what
was provided to the end user so that the charging service can determine the applicable
tariff.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="volumes" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Specifies the units and number of units that will be credited towards the
user.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="requestNumber" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
session, or when creating the session. When no answer is received the same operation with the same
parameters must be retried with the same requestNumber.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

#### element **directRateReq/sessionID**

diagram



type [TpSessionID](#)

annotation The ID of the session

documentation

```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **directRateReq/applicationDescription**

diagram



type [TpString](#)

annotation Descriptive text for informational purposes

documentation

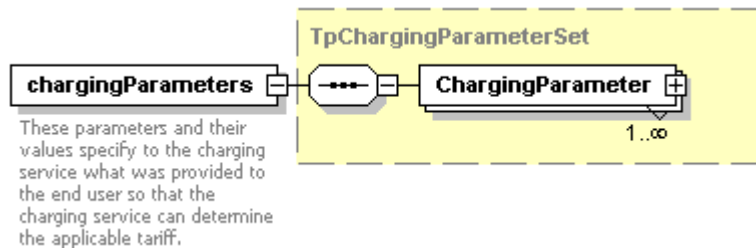
```

source <xsd:element name="applicationDescription" type="TpString">
  <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **directRateReq/chargingParameters**

diagram

type [TpChargingParameterSet](#)children [ChargingParameter](#)

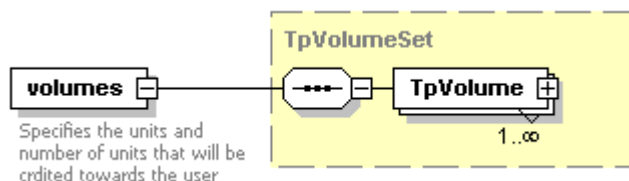
annotation documentation  
 These parameters and their values specify to the charging service what was provided to the end user so that the charging service can determine the applicable tariff.

source 

```
<xsd:element name="chargingParameters" type="TpChargingParameterSet">
  <xsd:annotation>
    <xsd:documentation>These parameters and their values specify to the charging service what was
    provided to the end user so that the charging service can determine the applicable
    tariff.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **directRateReq/volumes**

diagram

type [TpVolumeSet](#)children [TpVolume](#)

annotation documentation  
 Specifies the units and number of units that will be credited towards the user

source 

```
<xsd:element name="volumes" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Specifies the units and number of units that will be credited towards the
    user</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **directRateReq/requestNumber**

diagram



Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.

type [TpInt32](#)

annotation

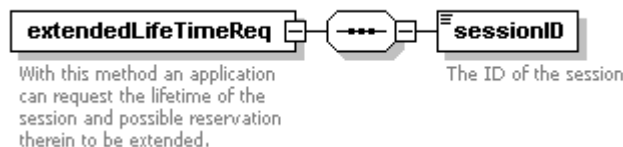
documentation

Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.

source `<xsd:element name="requestNumber" type="TpInt32">`  
`<xsd:annotation>`  
`<xsd:documentation>`Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.`</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

element **extendedLifeTimeReq**

diagram



With this method an application can request the lifetime of the session and possible reservation therein to be extended.

The ID of the session

children [sessionID](#)

annotation

documentation

With this method an application can request the lifetime of the session and possible reservation therein to be extended.

source `<xsd:element name="extendedLifeTimeReq">`  
`<xsd:annotation>`  
`<xsd:documentation>`With this method an application can request the lifetime of the session and possible reservation therein to be extended.`</xsd:documentation>`  
`</xsd:annotation>`  
`<xsd:complexType>`  
`<xsd:sequence>`  
`<xsd:element name="sessionID" type="TpSessionID">`  
`<xsd:annotation>`  
`<xsd:documentation>`The ID of the session`</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`  
`</xsd:sequence>`  
`</xsd:complexType>`  
`</xsd:element>`



element **extendedLifeTimeReq/sessionID**

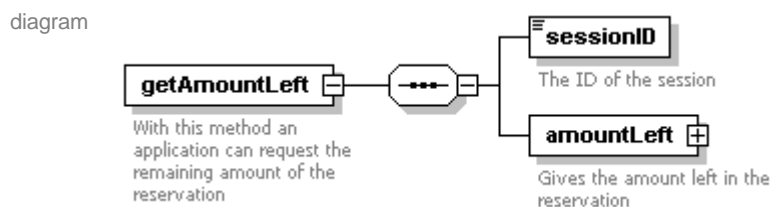
type [TpSessionID](#)

annotation The ID of the session

documentation

source 

```
<xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **getAmountLeft**

children [sessionID](#) [amountLeft](#)

annotation With this method an application can request the remaining amount of the reservation

documentation

source 

```
<xsd:element name="getAmountLeft">
  <xsd:annotation>
    <xsd:documentation>With this method an application can request the remaining amount of the reservation</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>The ID of the session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="amountLeft" type="TpChargingPrice">
        <xsd:annotation>
          <xsd:documentation>Gives the amount left in the reservation</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

element **getAmountLeft/sessionID**

type [TpSessionID](#)

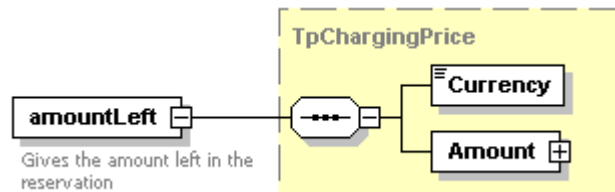
annotation      The ID of the session

documentation

```
source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

### element **getAmountLeft/amountLeft**

diagram



type [TpChargingPrice](#)

children [Currency](#) [Amount](#)

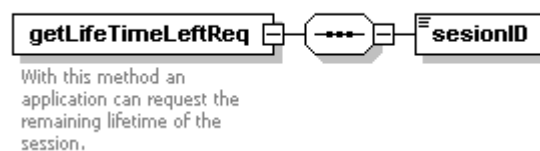
annotation      Gives the amount left in the reservation

documentation

```
source <xsd:element name="amountLeft" type="TpChargingPrice">
  <xsd:annotation>
    <xsd:documentation>Gives the amount left in the reservation</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

### element **getLifeTimeLeftReq**

diagram



children [sessionID](#)

annotation      With this method an application can request the remaining lifetime of the session.

documentation

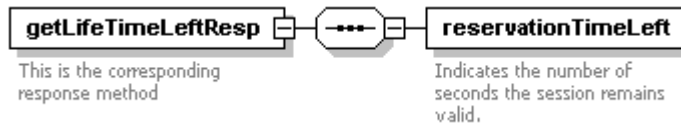
```
source <xsd:element name="getLifeTimeLeftReq">
  <xsd:annotation>
    <xsd:documentation>With this method an application can request the remaining lifetime of the
    session.</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

element **getLifeTimeLeftReq/sessionID**

diagram

type [TpSessionID](#)source `<xsd:element name="sessionID" type="TpSessionID"/>`element **getLifeTimeLeftResp**

diagram

children [reservationTimeLeft](#)

annotation

This is the corresponding response method

documentation

```

source <xsd:element name="getLifeTimeLeftResp">
  <xsd:annotation>
    <xsd:documentation>This is the corresponding response method</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="reservationTimeLeft">
        <xsd:annotation>
          <xsd:documentation>Indicates the number of seconds the session remains
valid.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **getLifeTimeLeftResp/reservationTimeLeft**

diagram



annotation

Indicates the number of seconds the session remains valid.

documentation

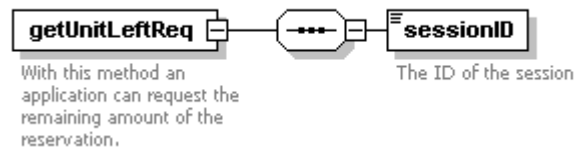
```

source <xsd:element name="reservationTimeLeft">
  <xsd:annotation>
    <xsd:documentation>Indicates the number of seconds the session remains
valid.</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **getUnitLeftReq**

diagram

children [sessionID](#)

annotation

With this method an application can request the remaining amount of the reservation.

documentation

source

```

<xsd:element name="getUnitLeftReq">
  <xsd:annotation>
    <xsd:documentation>With this method an application can request the remaining amount of the
reservation.</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>The ID of the session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **getUnitLeftReq/sessionID**

diagram

type [TpSessionID](#)

annotation

The ID of the session

documentation

source

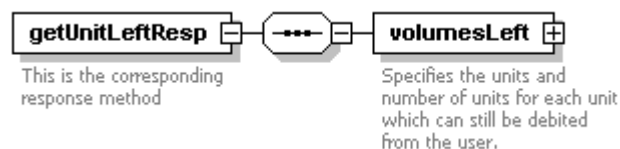
```

<xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **getUnitLeftResp**

diagram

children [volumesLeft](#)

annotation

This is the corresponding response method

documentation

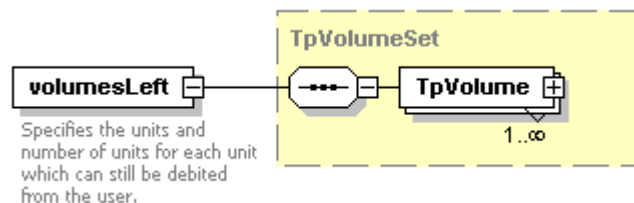
```

source <xsd:element name="getUnitLeftResp">
  <xsd:annotation>
    <xsd:documentation>This is the corresponding response method</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="volumesLeft" type="TpVolumeSet">
        <xsd:annotation>
          <xsd:documentation>Specifies the units and number of units for each unit which can still be
debited from the user.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

#### element **getUnitLeftResp/volumesLeft**

diagram



type [TpVolumeSet](#)

children [TpVolume](#)

annotation documentation  
Specifies the units and number of units for each unit which can still be debited from the user.

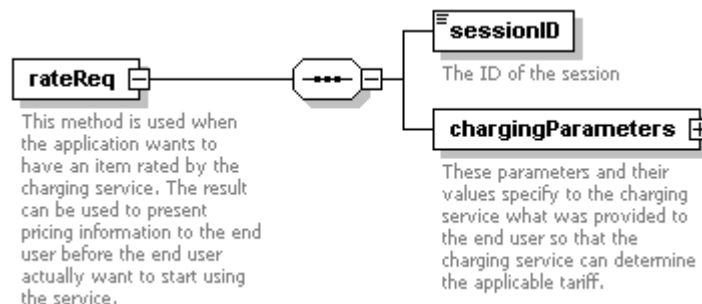
```

source <xsd:element name="volumesLeft" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Specifies the units and number of units for each unit which can still be debited
from the user.</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **rateReq**

diagram



children [sessionID](#) [chargingParameters](#)

annotation documentation  
This method is used when the application wants to have an item rated by the charging service. The result can be used to present pricing information to the end user before the end user actually want to start using the service.

```

source <xsd:element name="rateReq">

```

```

<xsd:annotation>
  <xsd:documentation>This method is used when the application wants to have an item rated by the
  charging service. The result can be used to present pricing information to the end user before the end
  user actually want to start using the service.</xsd:documentation>
</xsd:annotation>
<xsd:complexType>
  <xsd:sequence>
    <xsd:element name="sessionID" type="TpSessionID">
      <xsd:annotation>
        <xsd:documentation>The ID of the session</xsd:documentation>
      </xsd:annotation>
    </xsd:element>
    <xsd:element name="chargingParameters" type="TpChargingParameterSet">
      <xsd:annotation>
        <xsd:documentation>These parameters and their values specify to the charging service what
        was provided to the end user so that the charging service can determine the applicable
        tariff.</xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
</xsd:complexType>
</xsd:element>

```

element **rateReq/sessionID**

diagram

type [TpSessionID](#)annotation  
The ID of the session

documentation

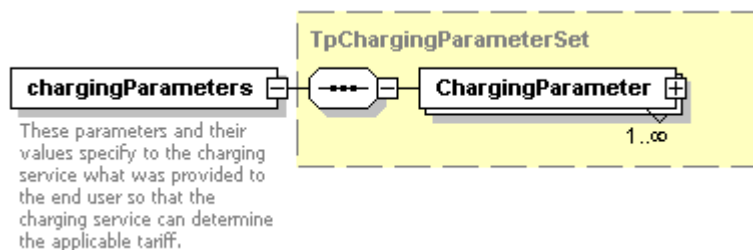
```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **rateReq/chargingParameters**

diagram

type [TpChargingParameterSet](#)children [ChargingParameter](#)

annotation  
These parameters and their values specify to the charging service what was provided to the end user so that the charging service can determine the applicable tariff.

documentation

```

source <xsd:element name="chargingParameters" type="TpChargingParameterSet">
  <xsd:annotation>
    <xsd:documentation>These parameters and their values specify to the charging service what was

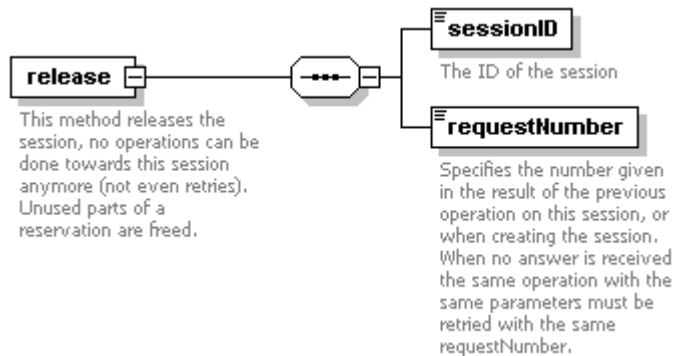
```

provided to the end user so that the charging service can determine the applicable tariff.

```
</xsd:documentation>
</xsd:annotation>
</xsd:element>
```

**element release**

diagram

children [sessionID requestNumber](#)

annotation

This method releases the session, no operations can be done towards this session anymore (not even retries). Unused parts of a reservation are freed.

documentation

source

```
<xsd:element name="release">
  <xsd:annotation>
    <xsd:documentation>This method releases the session, no operations can be done towards this
    session anymore (not even retries). Unused parts of a reservation are freed.</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>The ID of the session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumber" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>Specifies the number given in the result of the previous operation on this
          session, or when creating the session. When no answer is received the same operation with the same
          parameters must be retried with the same requestNumber.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

**element release/sessionID**

diagram

type [TpSessionID](#)

annotation

The ID of the session

documentation

source

```
<xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
```

```

<xsd:documentation>The ID of the session</xsd:documentation>
</xsd:annotation>
</xsd:element>

```

#### element **release/requestNumber**

diagram



Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.

type [Tplnt32](#)

annotation

documentation

Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.

source

```

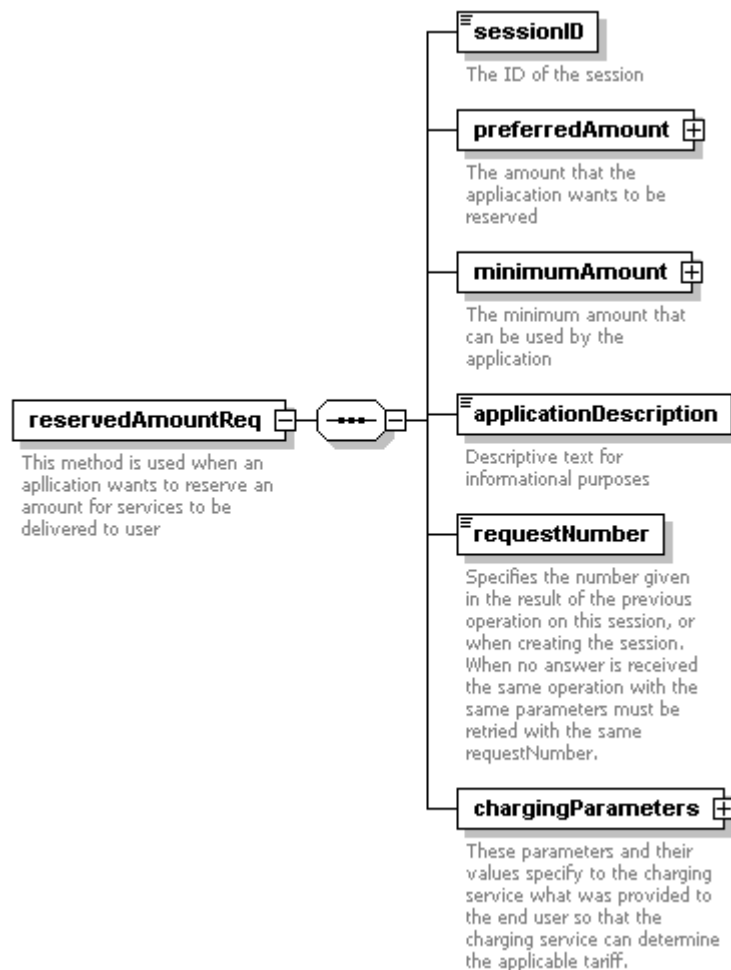
<xsd:element name="requestNumber" type="Tplnt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
    session, or when creating the session. When no answer is received the same operation with the same
    parameters must be retried with the same requestNumber.</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```



element **reservedAmountReq**

diagram



children [sessionID](#) [preferredAmount](#) [minimumAmount](#) [applicationDescription](#) [requestNumber](#) [chargingParameters](#)

annotation documentation  
This method is used when an application wants to reserve an amount for services to be delivered to user

source

```

<xsd:element name="reservedAmountReq">
  <xsd:annotation>
    <xsd:documentation>This method is used when an application wants to reserve an amount for
    services to be delivered to user</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>The ID of the session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="preferredAmount" type="TpChargingPrice">
        <xsd:annotation>
          <xsd:documentation>The amount that the application wants to be
          reserved</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="minimumAmount" type="TpChargingPrice">

```

```

<xsd:annotation>
  <xsd:documentation>The minimum amount that can be used by the
application</xsd:documentation>
</xsd:annotation>
</xsd:element>
<xsd:element name="applicationDescription" type="TpString">
  <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="requestNumber" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
session, or when creating the session. When no answer is received the same operation with the same
parameters must be retried with the same requestNumber.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="chargingParameters" type="TpChargingParameterSet">
  <xsd:annotation>
    <xsd:documentation>These parameters and their values specify to the charging service what
was provided to the end user so that the charging service can determine the applicable
tariff.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

#### element **reservedAmountReq/sessionID**

diagram



type [TpSessionID](#)

annotation The ID of the session

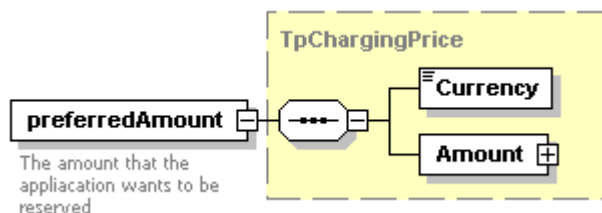
documentation

source 

```
<xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

#### element **reservedAmountReq/preferredAmount**

diagram



type [TpChargingPrice](#)

children [Currency](#) [Amount](#)

annotation The amount that the application wants to be reserved

documentation

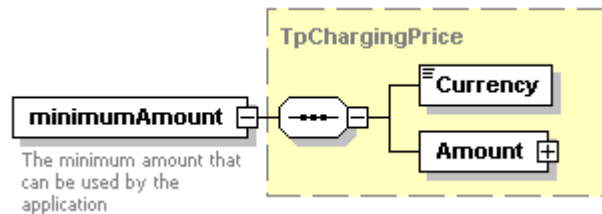
```

source <xsd:element name="preferredAmount" type="TpChargingPrice">
  <xsd:annotation>
    <xsd:documentation>The amount that the application wants to be reserved</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **reservedAmountReq/minimumAmount**

diagram



type [TpChargingPrice](#)

children [Currency](#) [Amount](#)

annotation documentation  
The minimum amount that can be used by the application

```

source <xsd:element name="minimumAmount" type="TpChargingPrice">
  <xsd:annotation>
    <xsd:documentation>The minimum amount that can be used by the application</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **reservedAmountReq/applicationDescription**

diagram



type [TpString](#)

annotation documentation  
Descriptive text for informational purposes

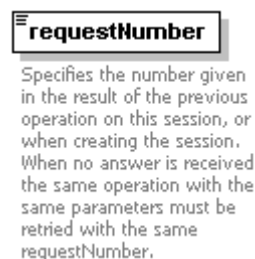
```

source <xsd:element name="applicationDescription" type="TpString">
  <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **reservedAmountReq/requestNumber**

diagram



type [TpInt32](#)

annotation

documentation

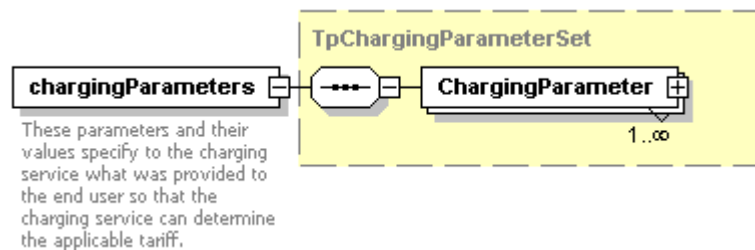
Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.

source

```
<xsd:element name="requestNumber" type="Tplnt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
    session, or when creating the session. When no answer is received the same operation with the same
    parameters must be retried with the same requestNumber.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

### element **reservedAmountReq/chargingParameters**

diagram



type

[TpChargingParameterSet](#)

children

[ChargingParameter](#)

annotation

documentation

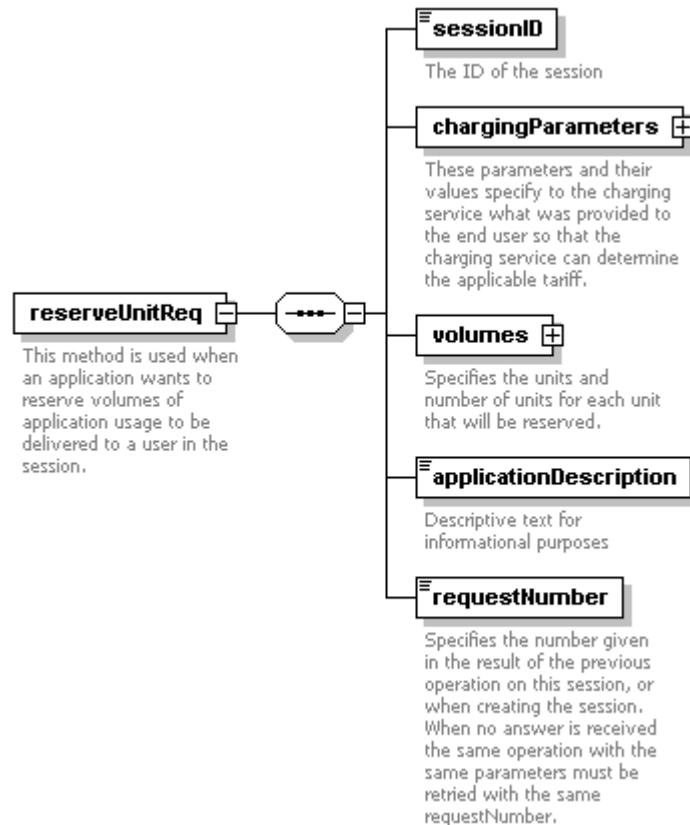
These parameters and their values specify to the charging service what was provided to the end user so that the charging service can determine the applicable tariff.

source

```
<xsd:element name="chargingParameters" type="TpChargingParameterSet">
  <xsd:annotation>
    <xsd:documentation>These parameters and their values specify to the charging service what was
    provided to the end user so that the charging service can determine the applicable
    tariff.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **reserveUnitReq**

diagram

children [sessionId](#) [chargingParameters](#) [volumes](#) [applicationDescription](#) [requestNumber](#)

annotation

This method is used when an application wants to reserve volumes of application usage to be delivered to a user in the session.

documentation

```

source <xsd:element name="reserveUnitReq">
  <xsd:annotation>
    <xsd:documentation>This method is used when an application wants to reserve volumes of
    application usage to be delivered to a user in the session.</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionId" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>The ID of the session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="chargingParameters" type="TpChargingParameterSet">
        <xsd:annotation>
          <xsd:documentation>These parameters and their values specify to the charging service what
          was provided to the end user so that the charging service can determine the applicable
          tariff.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="volumes" type="TpVolumeSet">
        <xsd:annotation>
          <xsd:documentation>Specifies the units and number of units for each unit that will be
          reserved.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

```

<xsd:element name="applicationDescription" type="TpString">
  <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="requestNumber" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
    session, or when creating the session. When no answer is received the same operation with the same
    parameters must be retried with the same requestNumber.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

#### element **reserveUnitReq/sessionID**



type [TpSessionID](#)

annotation The ID of the session

documentation

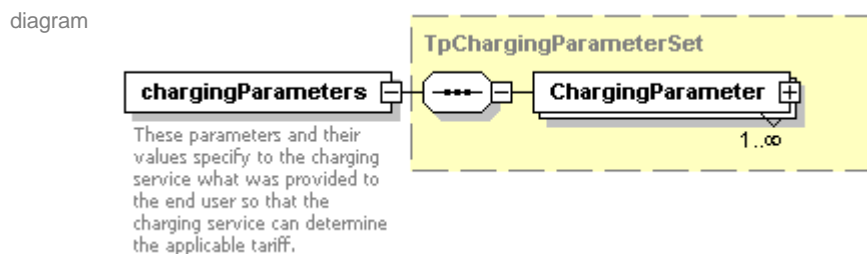
source

```

<xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>The ID of the session</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **reserveUnitReq/chargingParameters**



type [TpChargingParameterSet](#)

children [ChargingParameter](#)

annotation These parameters and their values specify to the charging service what was provided to the end user so that the charging service can determine the applicable tariff.

documentation

source

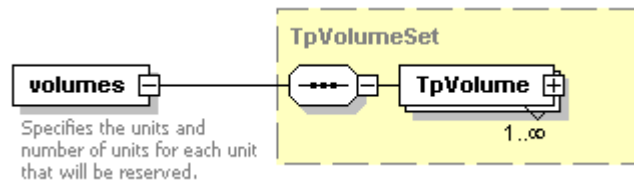
```

<xsd:element name="chargingParameters" type="TpChargingParameterSet">
  <xsd:annotation>
    <xsd:documentation>These parameters and their values specify to the charging service what was
    provided to the end user so that the charging service can determine the applicable
    tariff.</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **reserveUnitReq/volumes**

diagram

type [TpVolumeSet](#)children [TpVolume](#)

annotation documentation  
Specifies the units and number of units for each unit that will be reserved.

source 

```
<xsd:element name="volumes" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Specifies the units and number of units for each unit that will be
reserved.</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **reserveUnitReq/applicationDescription**

diagram

type [TpString](#)

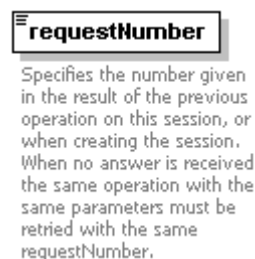
annotation documentation  
Descriptive text for informational purposes

source 

```
<xsd:element name="applicationDescription" type="TpString">
  <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **reserveUnitReq/requestNumber**

diagram

type [TpInt32](#)

annotation documentation  
Specifies the number given in the result of the previous operation on this session, or when creating the session. When no answer is received the same operation with the same parameters must be retried with the same requestNumber.

```

source <xsd:element name="requestNumber" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Specifies the number given in the result of the previous operation on this
    session, or when creating the session. When no answer is received the same operation with the same
    parameters must be retried with the same requestNumber.</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

## 6.2 Schema IpAppChargingSession.xsd

schema location: IpAppChargingSession.xsd

Elements

[creditAmountErr](#)  
[creditAmountRes](#)  
[creditUnitErr](#)  
[creditUnitRes](#)  
[debitAmountErr](#)  
[debitAmountRes](#)  
[debitUnitErr](#)  
[debitUnitRes](#)  
[directCreditAmountErr](#)  
[directCreditAmountRes](#)  
[directCreditUnitErr](#)  
[directCreditUnitRes](#)  
[directDebitAmountErr](#)  
[directDebitAmountRes](#)  
[directDebitUnitErr](#)  
[directDebitUnitRes](#)  
[extendLifeTimeErr](#)  
[extendLifeTimeRes](#)  
[rateErr](#)  
[rateRes](#)  
[reserveAmountErr](#)  
[reserveAmountRes](#)  
[reserveUnitErr](#)  
[reserveUnitRes](#)

schema location: AllTypes.xsd

Complex types

[TpAmount](#)  
[TpChargingParameter](#)  
[TpChargingParameterSet](#)  
[TpChargingPrice](#)  
[TpChargingSessionID](#)  
[TpCorrelationID](#)  
[TpMerchantAccountID](#)  
[TpPriceVolume](#)  
[TpPriceVolumeSet](#)  
  
[TpVolume](#)  
[TpVolumeSet](#)

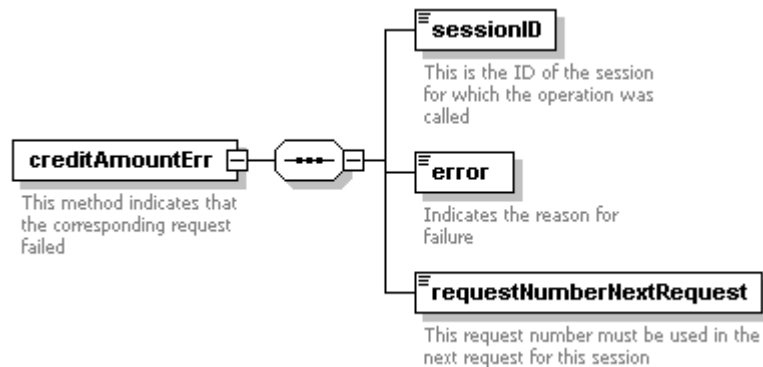
Simple types

[IpAppAmountSessionRef](#)  
[IpChargingSessionRef](#)  
[IpInterfaceRef](#)  
  
[TpAddress](#)  
[TpBoolean](#)  
[TpChargingError](#)  
[TpChargingParameterID](#)  
[TpChargingParameterValue](#)  
[TpChargingParameterValueType](#)  
[TpChargingSessionIdRef](#)  
[TpCorrelationType](#)  
[TpInt32](#)  
[TpSessionID](#)  
[TpString](#)  
[TpUnitID](#)



element **creditAmountErr**

diagram

children [sessionID](#) [error](#) [requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request failed

documentation

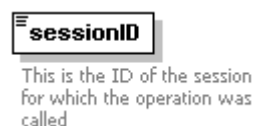
```

source
<xsd:element name="creditAmountErr">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request
failed</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="error" type="TpChargingError">
        <xsd:annotation>
          <xsd:documentation>Indicates the reason for failure</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this
session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **creditAmountErr/sessionID**

diagram

type [TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

source `<xsd:element name="sessionID" type="TpSessionID">`  
`<xsd:annotation>`  
`<xsd:documentation>This is the ID of the session for which the operation was`  
`called</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

#### element **creditAmountErr/error**

diagram   
 Indicates the reason for failure

type [TpChargingError](#)

annotation Indicates the reason for failure documentation

source `<xsd:element name="error" type="TpChargingError">`  
`<xsd:annotation>`  
`<xsd:documentation>Indicates the reason for failure</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

#### element **creditAmountErr/requestNumberNextRequest**

diagram   
 This request number must be used in the next request for this session

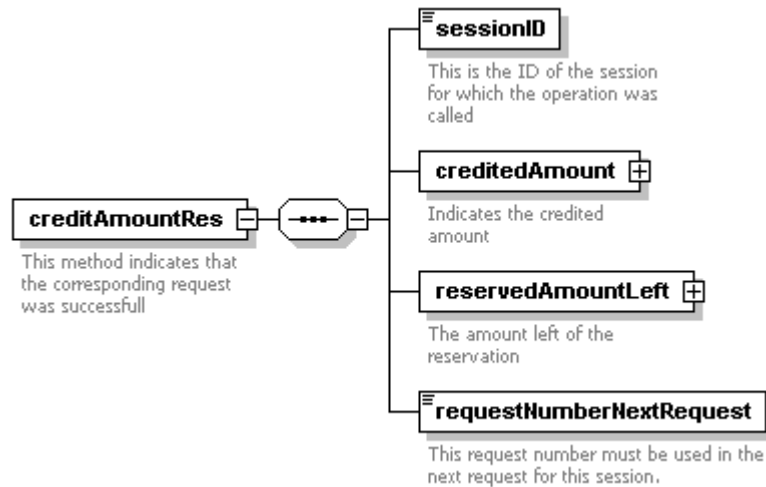
type [TpInt32](#)

annotation This request number must be used in the next request for this session documentation

source `<xsd:element name="requestNumberNextRequest" type="TpInt32">`  
`<xsd:annotation>`  
`<xsd:documentation>This request number must be used in the next request for this`  
`session</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

element **creditAmountRes**

diagram

children [sessionID](#) [creditedAmount](#) [reservedAmountLeft](#) [requestNumberNextRequest](#)

annotation This method indicates that the corresponding request was successful

documentation

```

source <xsd:element name="creditAmountRes">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request was
    successfull</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
          called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="creditedAmount" type="TpChargingPrice">
        <xsd:annotation>
          <xsd:documentation>Indicates the credited amount</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="reservedAmountLeft" type="TpChargingPrice">
        <xsd:annotation>
          <xsd:documentation>The amount left of the reservation</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this
          session.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
  
```

element **creditAmountRes/sessionID**

diagram



This is the ID of the session  
for which the operation was  
called

type [TpSessionID](#)

annotation

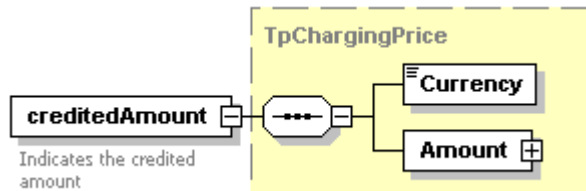
This is the ID of the session for which the operation was called

documentation

```
source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
    called</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **creditAmountRes/creditedAmount**

diagram

type [TpChargingPrice](#)children [Currency](#) [Amount](#)

annotation

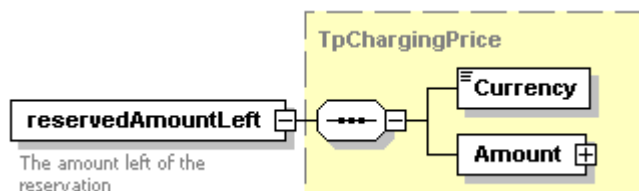
Indicates the credited amount

documentation

```
source <xsd:element name="creditedAmount" type="TpChargingPrice">
  <xsd:annotation>
    <xsd:documentation>Indicates the credited amount</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **creditAmountRes/reservedAmountLeft**

diagram

type [TpChargingPrice](#)children [Currency](#) [Amount](#)

annotation

The amount left of the reservation

documentation

```
source <xsd:element name="reservedAmountLeft" type="TpChargingPrice">
  <xsd:annotation>
```

```

<xsd:documentation>The amount left of the reservation</xsd:documentation>
</xsd:annotation>
</xsd:element>

```

#### element **creditAmountRes/requestNumberNextRequest**

diagram



type [TpInt32](#)

annotation

This request number must be used in the next request for this session.

documentation

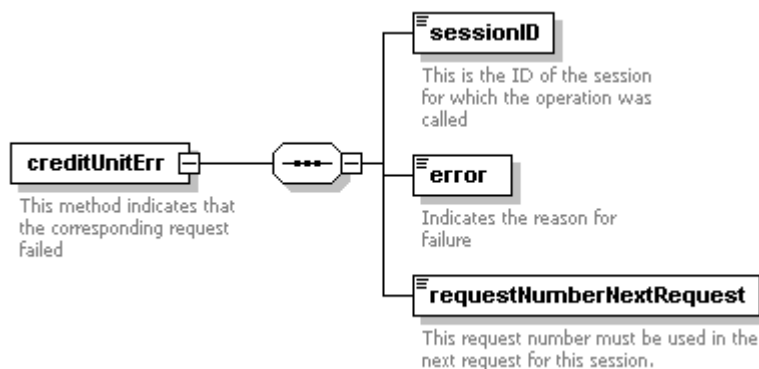
```

source <xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this
    session.</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **creditUnitErr**

diagram



children [sessionID error requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request failed

documentation

```

source <xsd:element name="creditUnitErr">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request
    failed</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
          called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="error" type="TpChargingError">
        <xsd:annotation>
          <xsd:documentation>Indicates the reason for failure</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">

```

```

<xsd:annotation>
  <xsd:documentation>This request number must be used in the next request for this session.
</xsd:documentation>
</xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

element **creditUnitErr/sessionID**

diagram



This is the ID of the session  
for which the operation was  
called

type [TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

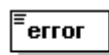
```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
    called</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **creditUnitErr/error**

diagram



Indicates the reason for  
failure

type [TpChargingError](#)

annotation

Indicates the reason for failure

documentation

```

source <xsd:element name="error" type="TpChargingError">
  <xsd:annotation>
    <xsd:documentation>Indicates the reason for failure</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **creditUnitErr/requestNumberNextRequest**

diagram



This request number must be used in the  
next request for this session.

type [TpInt32](#)

annotation

This request number must be used in the next request for this session.

documentation

```

source <xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>

```

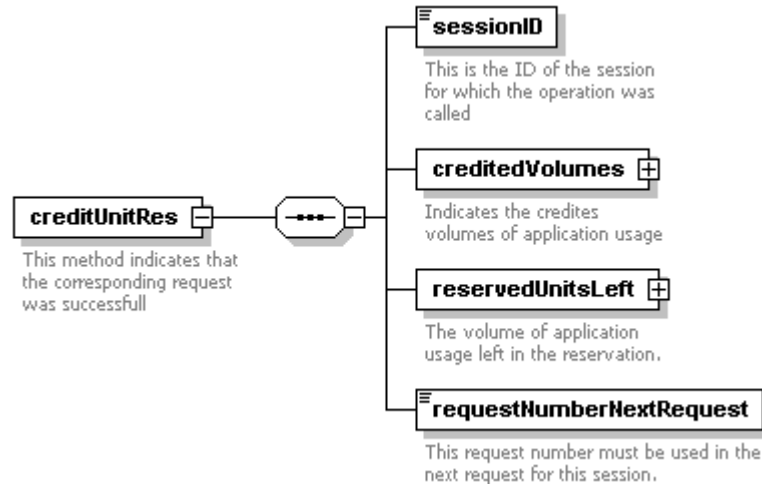
```

<xsd:documentation>This request number must be used in the next request for this session.
</xsd:documentation>
</xsd:annotation>
</xsd:element>

```

element **creditUnitRes**

diagram

children [sessionID](#) [creditedVolumes](#) [reservedUnitsLeft](#) [requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request was successful

documentation

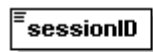
```

source <xsd:element name="creditUnitRes">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request was
    successfull</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
          called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="creditedVolumes" type="TpVolumeSet">
        <xsd:annotation>
          <xsd:documentation>Indicates the credits volumes of application usage</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="reservedUnitsLeft" type="TpVolumeSet">
        <xsd:annotation>
          <xsd:documentation>The volume of application usage left in the
          reservation.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this session.
        </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **creditUnitRes/sessionID**

diagram



This is the ID of the session for which the operation was called

type [TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

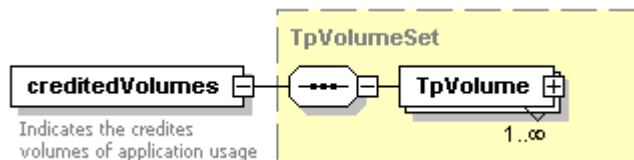
```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **creditUnitRes/creditedVolumes**

diagram



Indicates the credits volumes of application usage

type [TpVolumeSet](#)children [TpVolume](#)

annotation

Indicates the credits volumes of application usage

documentation

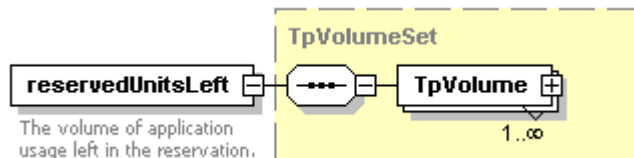
```

source <xsd:element name="creditedVolumes" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Indicates the credits volumes of application usage</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **creditUnitRes/reservedUnitsLeft**

diagram



The volume of application usage left in the reservation.

type [TpVolumeSet](#)children [TpVolume](#)

annotation

The volume of application usage left in the reservation.

documentation

```

source <xsd:element name="reservedUnitsLeft" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>The volume of application usage left in the reservation.</xsd:documentation>
  </xsd:annotation>

```



```
</xsd:element>
```

element **creditUnitRes/requestNumberNextRequest**

diagram



type [TplInt32](#)

annotation

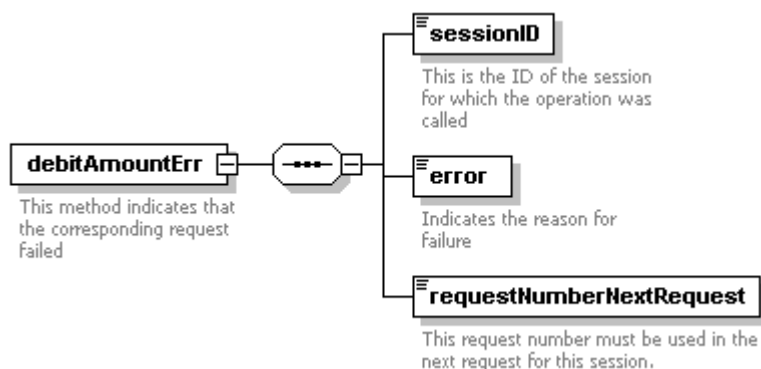
This request number must be used in the next request for this session.

documentation

```
source <xsd:element name="requestNumberNextRequest" type="TplInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this session.
  </xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **debitAmountErr**

diagram



children [sessionID](#) [error](#) [requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request failed

documentation

```
source <xsd:element name="debitAmountErr">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request
failed</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="error" type="TpChargingError">
        <xsd:annotation>
          <xsd:documentation>Indicates the reason for failure</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TplInt32">
        <xsd:annotation>
```

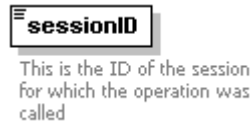
```

    <xsd:documentation>This request number must be used in the next request for this session.
  </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

**element debitAmountErr/sessionID**

diagram

type [TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
    called</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

**element debitAmountErr/error**

diagram

type [TpChargingError](#)

annotation

Indicates the reason for failure

documentation

```

source <xsd:element name="error" type="TpChargingError">
  <xsd:annotation>
    <xsd:documentation>Indicates the reason for failure</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

**element debitAmountErr/requestNumberNextRequest**

diagram

type [TpInt32](#)

annotation

This request number must be used in the next request for this session.

documentation

```

source <xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this session.

```

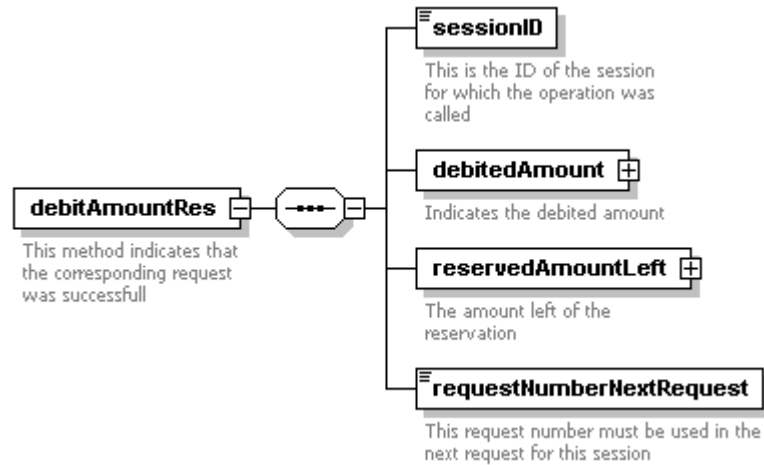
```

</xsd:documentation>
</xsd:annotation>
</xsd:element>

```

element **debitAmountRes**

diagram

children [sessionID](#) [debitedAmount](#) [reservedAmountLeft](#) [requestNumberNextRequest](#)

annotation This method indicates that the corresponding request was successful

documentation

```

source <xsd:element name="debitAmountRes">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request was
    successfull</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
          called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="debitedAmount" type="TpChargingPrice">
        <xsd:annotation>
          <xsd:documentation>Indicates the debited amount</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="reservedAmountLeft" type="TpChargingPrice">
        <xsd:annotation>
          <xsd:documentation>The amount left of the reservation</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this
          session</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **debitAmountRes/sessionID**

diagram



This is the ID of the session  
for which the operation was  
called

type [TpSessionID](#)

annotation

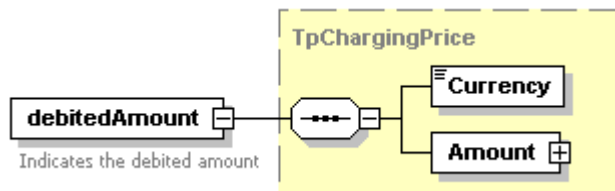
This is the ID of the session for which the operation was called

documentation

```
source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **debitAmountRes/debitedAmount**

diagram

type [TpChargingPrice](#)children [Currency](#) [Amount](#)

annotation

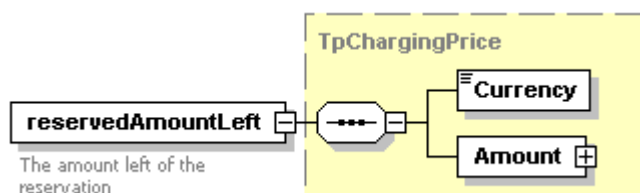
Indicates the debited amount

documentation

```
source <xsd:element name="debitedAmount" type="TpChargingPrice">
  <xsd:annotation>
    <xsd:documentation>Indicates the debited amount</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **debitAmountRes/reservedAmountLeft**

diagram

type [TpChargingPrice](#)children [Currency](#) [Amount](#)

annotation

The amount left of the reservation

documentation

```
source <xsd:element name="reservedAmountLeft" type="TpChargingPrice">
  <xsd:annotation>
```

```

<xsd:documentation>The amount left of the reservation</xsd:documentation>
</xsd:annotation>
</xsd:element>

```

#### element **debitAmountRes/requestNumberNextRequest**

diagram



type [TpInt32](#)

annotation

This request number must be used in the next request for this session

documentation

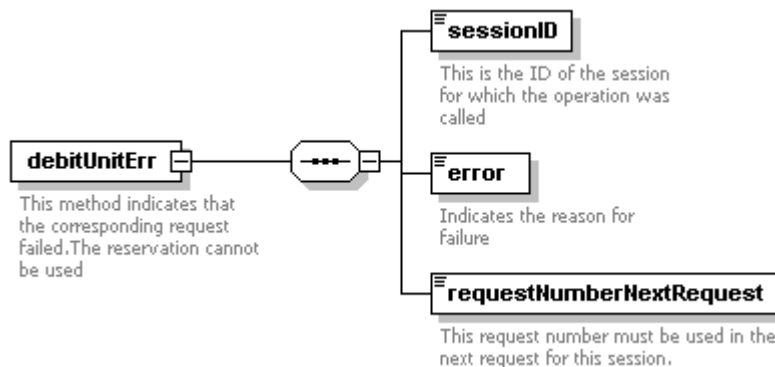
```

source <xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this
    session</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **debitUnitErr**

diagram



children [sessionID](#) [error](#) [requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request failed. The reservation cannot be used

documentation

```

source <xsd:element name="debitUnitErr">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request failed. The reservation
    cannot be used</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
          called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="error" type="TpChargingError">
        <xsd:annotation>
          <xsd:documentation>Indicates the reason for failure</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">

```

```

        <xsd:annotation>
        <xsd:documentation>This request number must be used in the next request for this session.
    </xsd:documentation>
    </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

element **debitUnitErr/sessionID**

diagram



This is the ID of the session  
for which the operation was  
called

type [TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

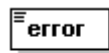
```

source <xsd:element name="sessionID" type="TpSessionID">
    <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
    </xsd:annotation>
</xsd:element>

```

element **debitUnitErr/error**

diagram



Indicates the reason for  
failure

type [TpChargingError](#)

annotation

Indicates the reason for failure

documentation

```

source <xsd:element name="error" type="TpChargingError">
    <xsd:annotation>
    <xsd:documentation>Indicates the reason for failure</xsd:documentation>
    </xsd:annotation>
</xsd:element>

```

element **debitUnitErr/requestNumberNextRequest**

diagram



This request number must be used in the  
next request for this session.

type [TpInt32](#)

annotation

This request number must be used in the next request for this session.

documentation

```

source <xsd:element name="requestNumberNextRequest" type="TpInt32">
    <xsd:annotation>

```

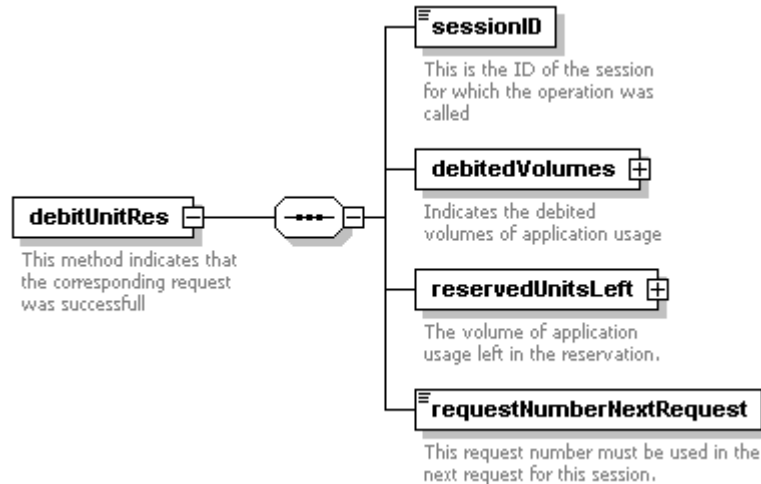
```

<xsd:documentation>This request number must be used in the next request for this session.
</xsd:documentation>
</xsd:annotation>
</xsd:element>

```

element **debitUnitRes**

diagram

children [sessionID](#) [debitedVolumes](#) [reservedUnitsLeft](#) [requestNumberNextRequest](#)

annotation This method indicates that the corresponding request was successful

documentation

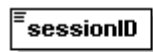
```

source <xsd:element name="debitUnitRes">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request was
    successfull</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
          called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="debitedVolumes" type="TpVolumeSet">
        <xsd:annotation>
          <xsd:documentation>Indicates the debited volumes of application usage</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="reservedUnitsLeft" type="TpVolumeSet">
        <xsd:annotation>
          <xsd:documentation>The volume of application usage left in the
          reservation.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this session.
        </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **debitUnitRes/sessionID**

diagram



This is the ID of the session for which the operation was called

type [TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

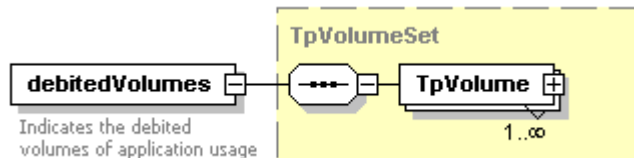
```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **debitUnitRes/debitedVolumes**

diagram



Indicates the debited volumes of application usage

type [TpVolumeSet](#)children [TpVolume](#)

annotation

Indicates the debited volumes of application usage

documentation

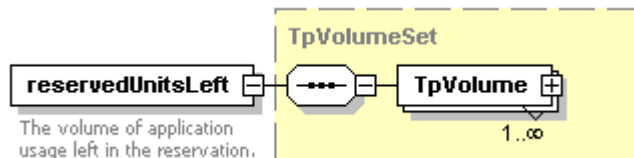
```

source <xsd:element name="debitedVolumes" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Indicates the debited volumes of application usage</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **debitUnitRes/reservedUnitsLeft**

diagram



The volume of application usage left in the reservation.

type [TpVolumeSet](#)children [TpVolume](#)

annotation

The volume of application usage left in the reservation.

documentation

```

source <xsd:element name="reservedUnitsLeft" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>The volume of application usage left in the reservation.</xsd:documentation>
  </xsd:annotation>

```



```
</xsd:element>
```

element **debitUnitRes/requestNumberNextRequest**

diagram



type [TpInt32](#)

annotation

This request number must be used in the next request for this session.

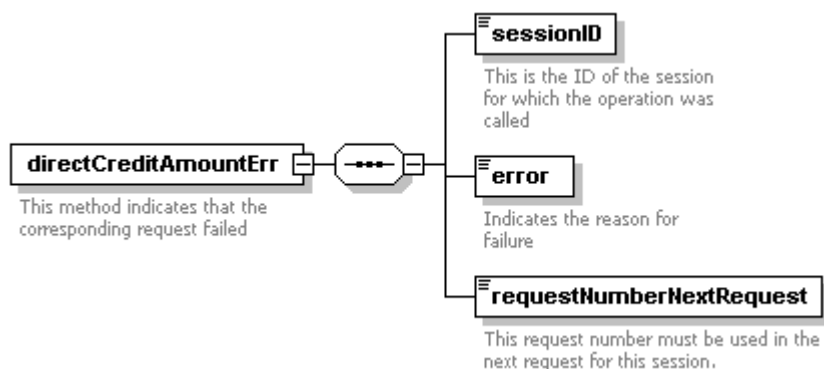
documentation

source

```
<xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this session.
  </xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **directCreditAmountErr**

diagram



children [sessionID](#) [error](#) [requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request failed

documentation

source

```
<xsd:element name="directCreditAmountErr">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request
failed</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="error" type="TpChargingError">
        <xsd:annotation>
          <xsd:documentation>Indicates the reason for failure</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
```

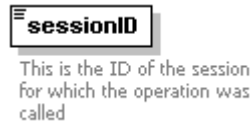
```

    <xsd:documentation>This request number must be used in the next request for this session.
  </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

element **directCreditAmountErr/sessionID**

diagram

type [TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
    called</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **directCreditAmountErr/error**

diagram

type [TpChargingError](#)

annotation

Indicates the reason for failure

documentation

```

source <xsd:element name="error" type="TpChargingError">
  <xsd:annotation>
    <xsd:documentation>Indicates the reason for failure</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **directCreditAmountErr/requestNumberNextRequest**

diagram

type [TpInt32](#)

annotation

This request number must be used in the next request for this session.

documentation

```

source <xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this session.

```

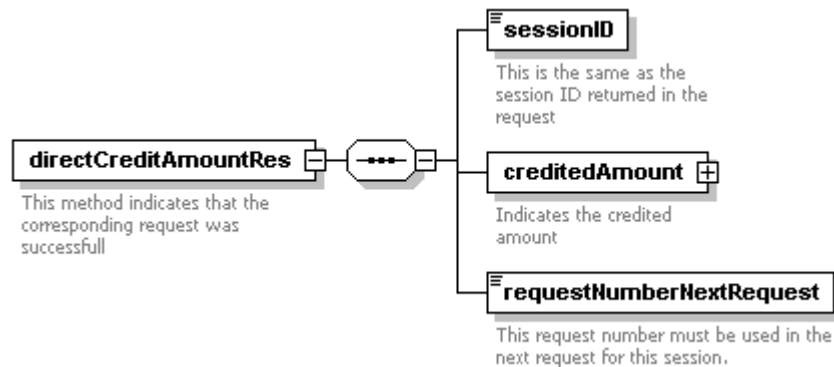
```

</xsd:documentation>
</xsd:annotation>
</xsd:element>

```

element **directCreditAmountRes**

diagram

children [sessionID](#) [creditedAmount](#) [requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request was successfull

documentation

```

source
<xsd:element name="directCreditAmountRes">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request was
    successfull</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the same as the session ID returned in the
          request</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="creditedAmount" type="TpChargingPrice">
        <xsd:annotation>
          <xsd:documentation>Indicates the credited amount</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this
          session.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **directCreditAmountRes/sessionID**

diagram

type [TpSessionID](#)

annotation

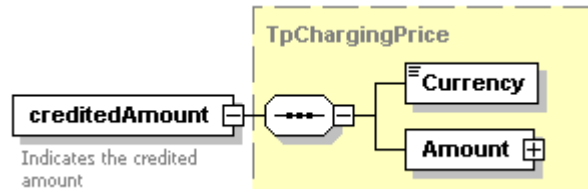
This is the same as the session ID returned in the request

documentation

source `<xsd:element name="sessionID" type="TpSessionID">`  
`<xsd:annotation>`  
`<xsd:documentation>This is the same as the session ID returned in the request</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

#### element **directCreditAmountRes/creditedAmount**

diagram



type [TpChargingPrice](#)

children [Currency](#) [Amount](#)

annotation Indicates the credited amount

documentation

source `<xsd:element name="creditedAmount" type="TpChargingPrice">`  
`<xsd:annotation>`  
`<xsd:documentation>Indicates the credited amount</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

#### element **directCreditAmountRe s/requestNumberNextRequest**

diagram



type [TpInt32](#)

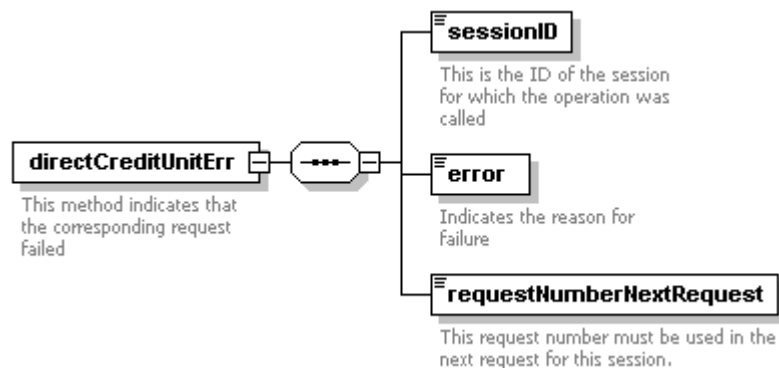
annotation This request number must be used in the next request for this session.

documentation

source `<xsd:element name="requestNumberNextRequest" type="TpInt32">`  
`<xsd:annotation>`  
`<xsd:documentation>This request number must be used in the next request for this session.</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

element **directCreditUnitErr**

diagram

children [sessionID](#) [error](#) [requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request failed

documentation

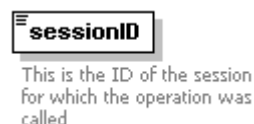
source

```

<xsd:element name="directCreditUnitErr">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request
failed</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="error" type="TpChargingError">
        <xsd:annotation>
          <xsd:documentation>Indicates the reason for failure</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this session.
</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
  
```

element **directCreditUnitErr/sessionID**

diagram



type

[TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

source `<xsd:element name="sessionID" type="TpSessionID">`  
`<xsd:annotation>`  
`<xsd:documentation>This is the ID of the session for which the operation was`  
`called</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

#### element **directCreditUnitErr/error**



type [TpChargingError](#)

annotation Indicates the reason for failure

documentation

source `<xsd:element name="error" type="TpChargingError">`  
`<xsd:annotation>`  
`<xsd:documentation>Indicates the reason for failure</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

#### element **directCreditUnitErr/requestNumberNextRequest**



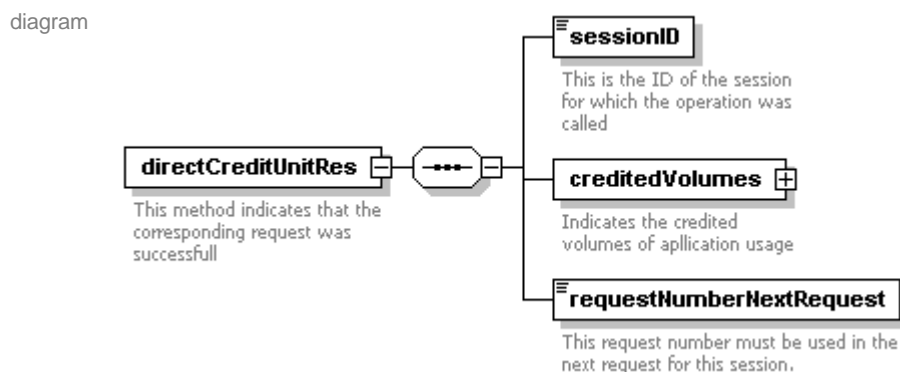
type [TpInt32](#)

annotation This request number must be used in the next request for this session.

documentation

source `<xsd:element name="requestNumberNextRequest" type="TpInt32">`  
`<xsd:annotation>`  
`<xsd:documentation>This request number must be used in the next request for this session.`  
`</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

#### element **directCreditUnitRes**



children [sessionID](#) [creditedVolumes](#) [requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request was successful

documentation

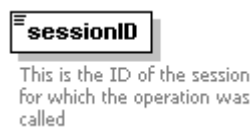
```

source <xsd:element name="directCreditUnitRes">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request was
    successful</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
          called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="creditedVolumes" type="TpPriceVolumeSet">
        <xsd:annotation>
          <xsd:documentation>Indicates the credited volumes of application usage</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this session.
        </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **directCreditUnitRes/sessionID**

diagram

type [TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

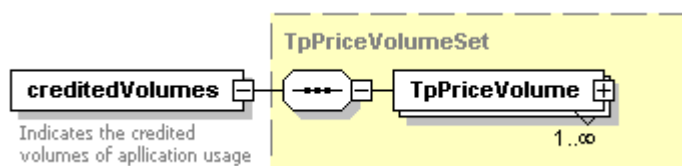
```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
    called</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **directCreditUnitRes/creditedVolumes**

diagram

type [TpPriceVolumeSet](#)children [TpPriceVolume](#)

annotation Indicates the credited volumes of application usage documentation

source 

```
<xsd:element name="creditedVolumes" type="TpPriceVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Indicates the credited volumes of application usage</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

#### element **directCreditUnitRes/requestNumberNextRequest**

diagram 

```

  requestNumberNextRequest
  This request number must be used in the
  next request for this session.
  
```

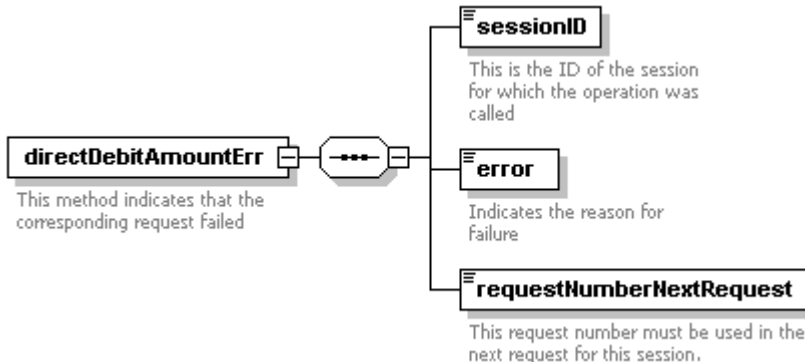
type [TpInt32](#)

annotation This request number must be used in the next request for this session. documentation

source 

```
<xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this session.
  </xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

#### element **directDebitAmountErr**

diagram 

```

  directDebitAmountErr
  This method indicates that the
  corresponding request failed

  sessionID
  This is the ID of the session
  for which the operation was
  called

  error
  Indicates the reason for
  failure

  requestNumberNextRequest
  This request number must be used in the
  next request for this session.
  
```

children [sessionID](#) [error](#) [requestNumberNextRequest](#)

annotation This method indicates that the corresponding request failed documentation

source 

```
<xsd:element name="directDebitAmountErr">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request
  failed</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
        called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="error">
        <xsd:annotation>
          <xsd:documentation>Indicates the reason for
        failure
        </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this session.
        </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```



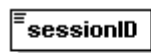
```

</xsd:element>
<xsd:element name="error" type="TpChargingError">
  <xsd:annotation>
    <xsd:documentation>Indicates the reason for failure</xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this session.
  </xsd:documentation>
  </xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

#### element **directDebitAmountErr/sessionID**

diagram



This is the ID of the session  
for which the operation was  
called

type [TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

source

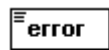
```

<xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **directDebitAmountErr/error**

diagram



Indicates the reason for  
failure

type [TpChargingError](#)

annotation

Indicates the reason for failure

documentation

source

```

<xsd:element name="error" type="TpChargingError">
  <xsd:annotation>
    <xsd:documentation>Indicates the reason for failure</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **directDebitAmountErr/requestNumberNextRequest**

diagram



This request number must be used in the  
next request for this session.

type [TpInt32](#)

annotation

This request number must be used in the next request for this session.

documentation

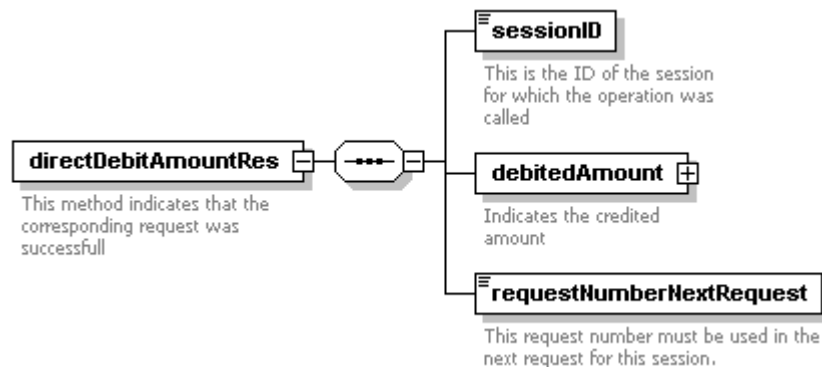
```

source <xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this session.
  </xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **directDebitAmountRes**

diagram

children [sessionID](#) [debitedAmount](#) [requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request was successful

documentation

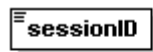
```

source <xsd:element name="directDebitAmountRes">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request was
    successfull</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
          called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="debitedAmount" type="TpChargingPrice">
        <xsd:annotation>
          <xsd:documentation>Indicates the credited amount</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this session.
        </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **directDebitAmountRes/sessionID**

diagram



This is the ID of the session  
for which the operation was  
called

type [TpSessionID](#)

annotation

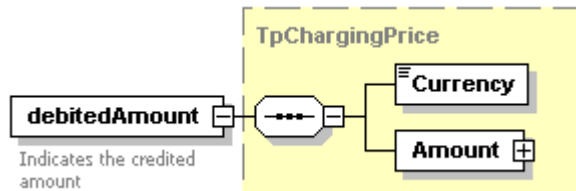
This is the ID of the session for which the operation was called

documentation

```
source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
    called</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **directDebitAmountRes/debitedAmount**

diagram

type [TpChargingPrice](#)children [Currency](#) [Amount](#)

annotation

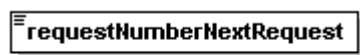
Indicates the credited amount

documentation

```
source <xsd:element name="debitedAmount" type="TpChargingPrice">
  <xsd:annotation>
    <xsd:documentation>Indicates the credited amount</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **directDebitAmountRes/requestNumberNextRequest**

diagram



This request number must be used in the  
next request for this session.

type [TpInt32](#)

annotation

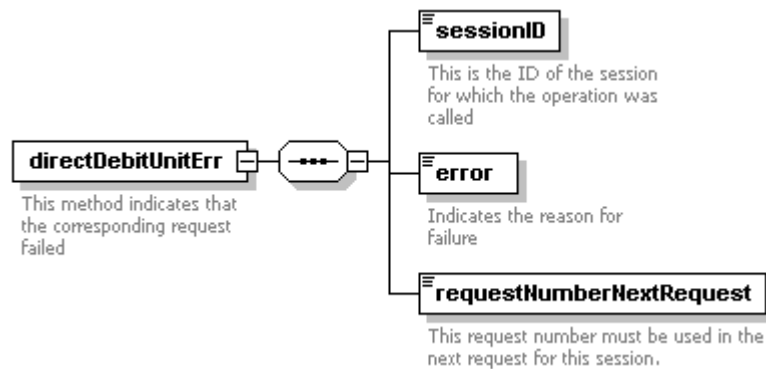
This request number must be used in the next request for this session.

documentation

```
source <xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this session.
  </xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

`</xsd:element>`element **directDebitUnitErr**

diagram

children [sessionID](#) [error](#) [requestNumberNextRequest](#)

annotation This method indicates that the corresponding request failed

documentation

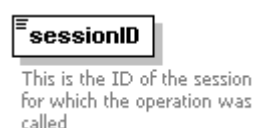
```

source <xsd:element name="directDebitUnitErr">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request
failed</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="error" type="TpChargingError">
        <xsd:annotation>
          <xsd:documentation>Indicates the reason for failure</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this session.
        </xsd:documentation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **directDebitUnitErr/sessionID**

diagram

type [TpSessionID](#)

annotation This is the ID of the session for which the operation was called

documentation

source `<xsd:element name="sessionID" type="TpSessionID">  
 <xsd:annotation>  
 <xsd:documentation>This is the ID of the session for which the operation was  
 called</xsd:documentation>  
 </xsd:annotation>  
 </xsd:element>`

#### element **directDebitUnitErr/error**



type [TpChargingError](#)

annotation Indicates the reason for failure

documentation

source `<xsd:element name="error" type="TpChargingError">  
 <xsd:annotation>  
 <xsd:documentation>Indicates the reason for failure</xsd:documentation>  
 </xsd:annotation>  
 </xsd:element>`

#### element **directDebitUnitErr/requestNumberNextRequest**



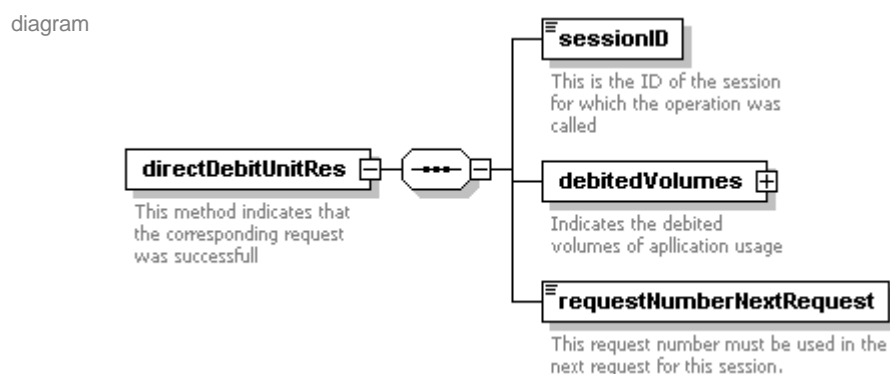
type [TpInt32](#)

annotation This request number must be used in the next request for this session.

documentation

source `<xsd:element name="requestNumberNextRequest" type="TpInt32">  
 <xsd:annotation>  
 <xsd:documentation>This request number must be used in the next request for this session.  
 </xsd:documentation>  
 </xsd:annotation>  
 </xsd:element>`

#### element **directDebitUnitRes**



children [sessionID](#) [debitedVolumes](#) [requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request was successful

documentation

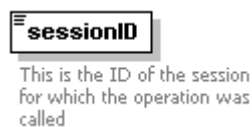
```

source <xsd:element name="directDebitUnitRes">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request was
    successful</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
          called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="debitedVolumes" type="TpPriceVolumeSet">
        <xsd:annotation>
          <xsd:documentation>Indicates the debited volumes of application usage</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this session.
        </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **directDebitUnitRes/sessionID**

diagram

type [TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

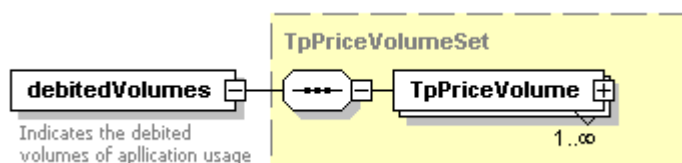
```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
    called</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **directDebitUnitRes/debitedVolumes**

diagram

type [TpPriceVolumeSet](#)children [TpPriceVolume](#)

annotation Indicates the debited volumes of application usage documentation

```

source <xsd:element name="debitedVolumes" type="TpPriceVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Indicates the debited volumes of application usage</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **directDebitUnitRes/requestNumberNextRequest**

diagram



The diagram shows a box labeled **requestNumberNextRequest** with a description: "This request number must be used in the next request for this session."

type [TpInt32](#)

annotation This request number must be used in the next request for this session. documentation

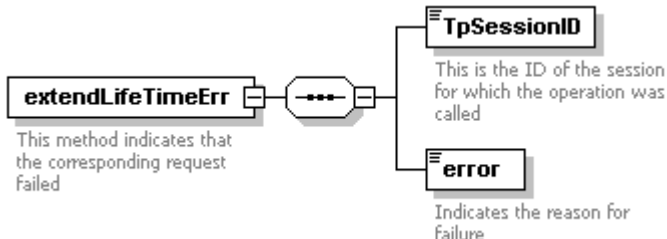
```

source <xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this session.
  </xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **extendLifeTimeErr**

diagram



The diagram shows a box labeled **extendLifeTimeErr** with a description: "This method indicates that the corresponding request failed". It is connected to a sequence container (a box with three dots) which contains two child elements: **TpSessionID** (description: "This is the ID of the session for which the operation was called") and **error** (description: "Indicates the reason for failure").

children [TpSessionID](#) [error](#)

annotation This method indicates that the corresponding request failed documentation

```

source <xsd:element name="extendLifeTimeErr">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request
failed</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="TpSessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="error" type="TpChargingError">
        <xsd:annotation>
          <xsd:documentation>Indicates the reason for failure</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

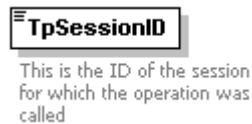
```

</xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

#### element **extendLifeTimeErr/TpSessionID**

diagram



type [TpSessionID](#)

annotation This is the ID of the session for which the operation was called

documentation

source 

```
<xsd:element name="TpSessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
    called</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

#### element **extendLifeTimeErr/error**

diagram



type [TpChargingError](#)

annotation Indicates the reason for failure

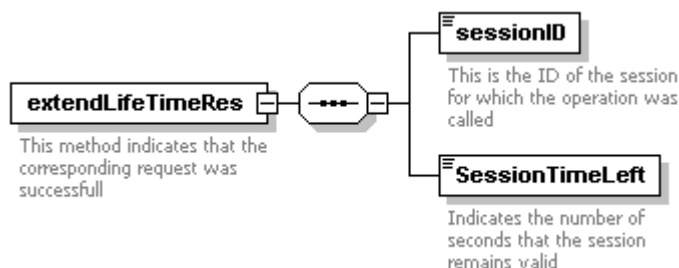
documentation

source 

```
<xsd:element name="error" type="TpChargingError">
  <xsd:annotation>
    <xsd:documentation>Indicates the reason for failure</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

#### element **extendLifeTimeRes**

diagram



children [sessionID](#) [SessionTimeLeft](#)

annotation This method indicates that the corresponding request was successful

documentation



```

source <xsd:element name="extendLifeTimeRes">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request was
    successfull</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
          called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="SessionTimeLeft" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>Indicates the number of seconds that the session remains
          valid</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

#### element **extendLifeTimeRes/sessionID**

diagram



This is the ID of the session  
for which the operation was  
called

type

[TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
    called</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

#### element **extendLifeTimeRes/SessionTimeLeft**

diagram



Indicates the number of  
seconds that the session  
remains valid

type

[TpInt32](#)

annotation

Indicates the number of seconds that the session remains valid

documentation

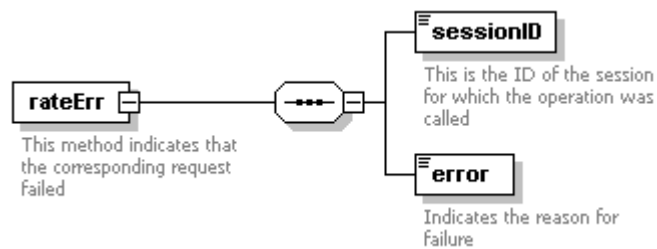
```

source <xsd:element name="SessionTimeLeft" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Indicates the number of seconds that the session remains
    valid</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **rateErr**

diagram

children [sessionID error](#)

annotation This method indicates that the corresponding request failed

documentation

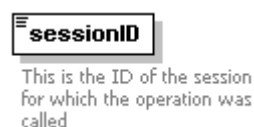
source

```

<xsd:element name="rateErr">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request failed</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="error" type="TpChargingError">
        <xsd:annotation>
          <xsd:documentation>Indicates the reason for failure</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
  
```

element **rateErr/sessionID**

diagram

type [TpSessionID](#)

annotation This is the ID of the session for which the operation was called

documentation

source

```

<xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was called</xsd:documentation>
  </xsd:annotation>
</xsd:element>
  
```

element **rateErr/error**

diagram

type [TpChargingError](#)

annotation

Indicates the reason for failure

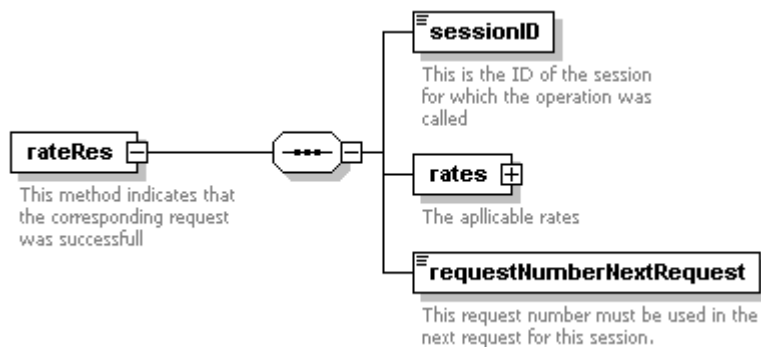
documentation

source

```
<xsd:element name="error" type="TpChargingError">
  <xsd:annotation>
    <xsd:documentation>Indicates the reason for failure</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **rateRes**

diagram

children [sessionID](#) [rates](#) [requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request was successful

documentation

source

```
<xsd:element name="rateRes">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request was
    successfull</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
          called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="rates" type="TpPriceVolumeSet">
        <xsd:annotation>
          <xsd:documentation>The applicable rates</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this session.
        </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

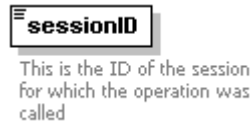
```

</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

element **rateRes/sessionID**

diagram

type [TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

documentation

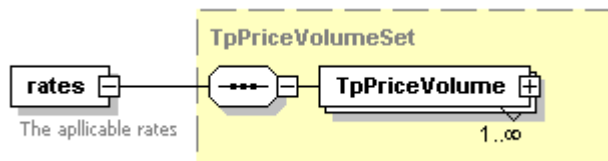
```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
    called</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **rateRes/rates**

diagram

type [TpPriceVolumeSet](#)children [TpPriceVolume](#)

annotation

The applicable rates

documentation

```

source <xsd:element name="rates" type="TpPriceVolumeSet">
  <xsd:annotation>
    <xsd:documentation>The applicable rates</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **rateRes/requestNumberNextRequest**

diagram

type [TpInt32](#)

annotation

This request number must be used in the next request for this session.

documentation

```

source <xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this session.

```

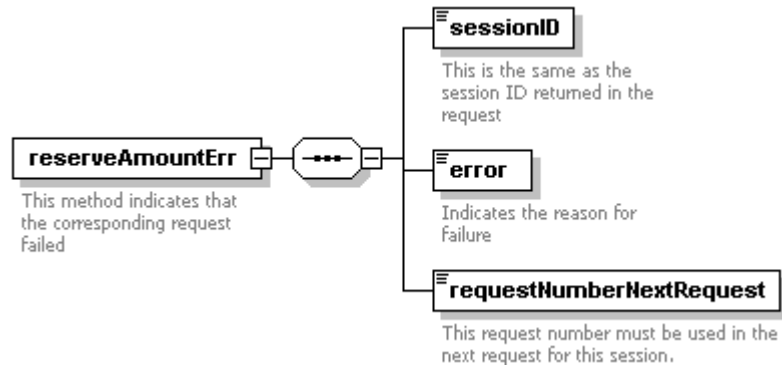
```

</xsd:documentation>
</xsd:annotation>
</xsd:element>

```

element **reserveAmountErr**

diagram

children [sessionID](#) [error](#) [requestNumberNextRequest](#)

annotation This method indicates that the corresponding request failed

documentation

```

source <xsd:element name="reserveAmountErr">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request
failed</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the same as the session ID returned in the
request</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="error" type="TpChargingError">
        <xsd:annotation>
          <xsd:documentation>Indicates the reason for failure</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this
session.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **reserveAmountErr/sessionID**

diagram

type [TpSessionID](#)

annotation This is the same as the session ID returned in the request

documentation

source `<xsd:element name="sessionID" type="TpSessionID">`  
`<xsd:annotation>`  
`<xsd:documentation>This is the same as the session ID returned in the request</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

#### element **reserveAmountErr/error**

diagram



type [TpChargingError](#)

annotation Indicates the reason for failure

documentation

source `<xsd:element name="error" type="TpChargingError">`  
`<xsd:annotation>`  
`<xsd:documentation>Indicates the reason for failure</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

#### element **reserveAmountErr/requestNumberNextRequest**

diagram



type [TpInt32](#)

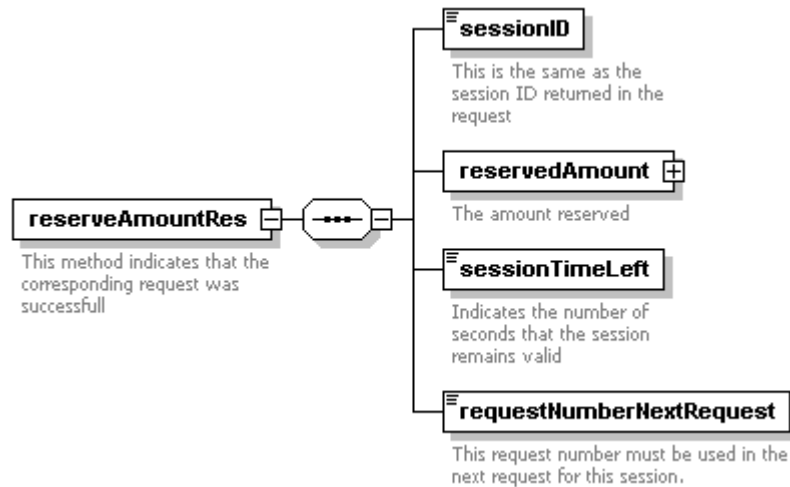
annotation This request number must be used in the next request for this session.

documentation

source `<xsd:element name="requestNumberNextRequest" type="TpInt32">`  
`<xsd:annotation>`  
`<xsd:documentation>This request number must be used in the next request for this session.</xsd:documentation>`  
`</xsd:annotation>`  
`</xsd:element>`

element **reserveAmountRes**

diagram

children [sessionID](#) [reservedAmount](#) [sessionTimeLeft](#) [requestNumberNextRequest](#)

annotation This method indicates that the corresponding request was successfull

documentation

```

source <xsd:element name="reserveAmountRes">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request was
    successfull</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the same as the session ID returned in the
          request</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="reservedAmount" type="TpChargingPrice">
        <xsd:annotation>
          <xsd:documentation>The amount reserved</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="sessionTimeLeft" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>Indicates the number of seconds that the session remains
          valid</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this
          session.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **reserveAmountRes/sessionID**

diagram

type [TpSessionID](#)

annotation

This is the same as the session ID returned in the request

documentation

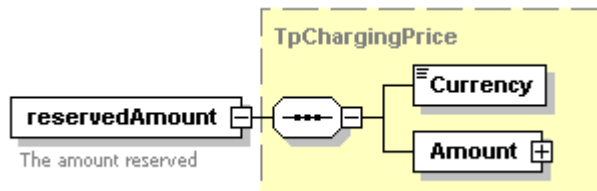
```

source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the same as the session ID returned in the request</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **reserveAmountRes/reservedAmount**

diagram

type [TpChargingPrice](#)children [Currency](#) [Amount](#)

annotation

The amount reserved

documentation

```

source <xsd:element name="reservedAmount" type="TpChargingPrice">
  <xsd:annotation>
    <xsd:documentation>The amount reserved</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **reserveAmountRes/sessionTimeLeft**

diagram

type [TpInt32](#)

annotation

Indicates the number of seconds that the session remains valid

documentation

```

source <xsd:element name="sessionTimeLeft" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Indicates the number of seconds that the session remains
    valid</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```



element **reserveAmountRes/requestNumberNextRequest**

diagram

type [TpInt32](#)

annotation

This request number must be used in the next request for this session.

documentation

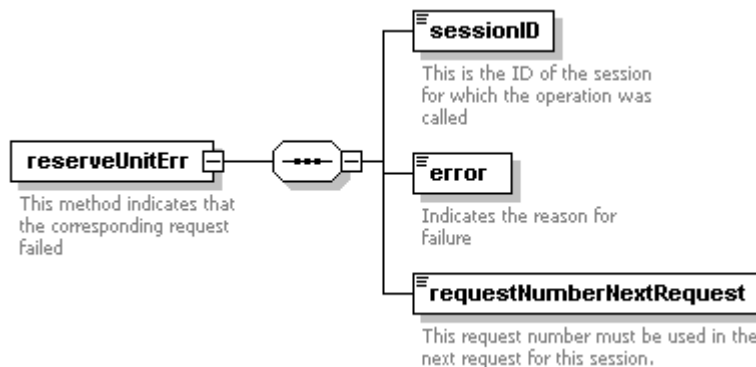
```

source <xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this
session.</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **reserveUnitErr**

diagram

children [sessionID](#) [error](#) [requestNumberNextRequest](#)

annotation

This method indicates that the corresponding request failed

documentation

```

source <xsd:element name="reserveUnitErr">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request
failed</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="error" type="TpChargingError">
        <xsd:annotation>
          <xsd:documentation>Indicates the reason for failure</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this session.
</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

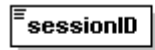
```

</xsd:annotation>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:element>

```

#### element **reserveUnitErr/sessionID**

diagram



This is the ID of the session  
for which the operation was  
called

type [TpSessionID](#)

annotation

This is the ID of the session for which the operation was called

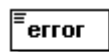
documentation

source 

```
<xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
    called</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

#### element **reserveUnitErr/error**

diagram



Indicates the reason for  
failure

type [TpChargingError](#)

annotation

Indicates the reason for failure

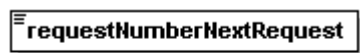
documentation

source 

```
<xsd:element name="error" type="TpChargingError">
  <xsd:annotation>
    <xsd:documentation>Indicates the reason for failure</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

#### element **reserveUnitErr/requestNumberNextRequest**

diagram



This request number must be used in the  
next request for this session.

type [TpInt32](#)

annotation

This request number must be used in the next request for this session.

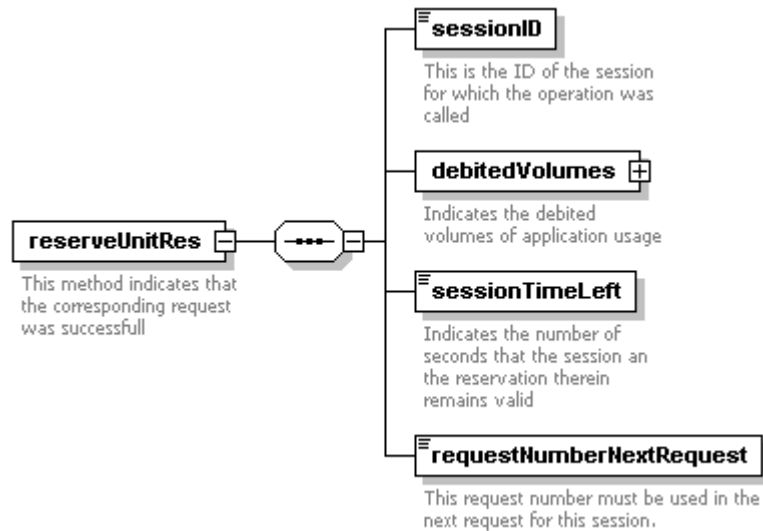
documentation

source 

```
<xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this session.
  </xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

`</xsd:element>`element **reserveUnitRes**

diagram

children [sessionID](#) [debitedVolumes](#) [sessionTimeLeft](#) [requestNumberNextRequest](#)

annotation This method indicates that the corresponding request was successful

documentation

source

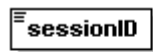
```

<xsd:element name="reserveUnitRes">
  <xsd:annotation>
    <xsd:documentation>This method indicates that the corresponding request was
    successfull</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>This is the ID of the session for which the operation was
          called</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="debitedVolumes" type="TpVolumeSet">
        <xsd:annotation>
          <xsd:documentation>Indicates the debited volumes of application usage</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="sessionTimeLeft" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>Indicates the number of seconds that the session on the reservation therein
          remains valid</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="requestNumberNextRequest" type="TpInt32">
        <xsd:annotation>
          <xsd:documentation>This request number must be used in the next request for this session.
        </xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

element **reserveUnitRes/sessionID**

diagram



This is the ID of the session  
for which the operation was  
called

type [TpSessionID](#)

annotation

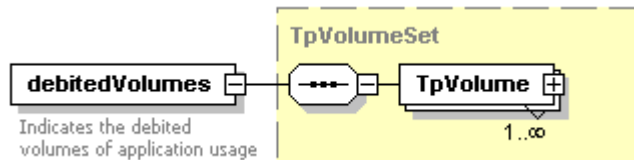
This is the ID of the session for which the operation was called

documentation

```
source <xsd:element name="sessionID" type="TpSessionID">
  <xsd:annotation>
    <xsd:documentation>This is the ID of the session for which the operation was
called</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **reserveUnitRes/debitedVolumes**

diagram



Indicates the debited  
volumes of application usage

type [TpVolumeSet](#)children [TpVolume](#)

annotation

Indicates the debited volumes of application usage

documentation

```
source <xsd:element name="debitedVolumes" type="TpVolumeSet">
  <xsd:annotation>
    <xsd:documentation>Indicates the debited volumes of application usage</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **reserveUnitRes/sessionTimeLeft**

diagram



Indicates the number of  
seconds that the session an  
the reservation therein  
remains valid

type [TpInt32](#)

annotation

Indicates the number of seconds that the session an the reservation therein remains valid

documentation

```
source <xsd:element name="sessionTimeLeft" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>Indicates the number of seconds that the session an the reservation therein
remains valid</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **reserveUnitRes/requestNumberNextRequest**

diagram



type [TpInt32](#)

annotation

This request number must be used in the next request for this session.

documentation

```
source <xsd:element name="requestNumberNextRequest" type="TpInt32">
  <xsd:annotation>
    <xsd:documentation>This request number must be used in the next request for this session.
  </xsd:documentation>
</xsd:annotation>
</xsd:element>
```

### 6.3 Schema IpService.xsd

schema location: [IpService.xsd](#)

Elements

[setCallback](#)

[setCallbackWithSessionID](#)

schema location: [AllTypes.xsd](#)

Complex types

[TpAmount](#)

[TpChargingParameter](#)

[TpChargingParameterSe](#)

[t](#)

[TpChargingPrice](#)

[TpChargingSessionID](#)

[TpCorrelationID](#)

[TpMerchantAccountID](#)

[TpPriceVolume](#)

[TpPriceVolumeSet](#)

[TpVolume](#)

[TpVolumeSet](#)

Simple types

[IpAppAmountSessionRef](#)

[IpChargingSessionRef](#)

[IpInterfaceRef](#)

[TpAddress](#)

[TpBoolean](#)

[TpChargingError](#)

[TpChargingParameterID](#)

[TpChargingParameterValue](#)

[TpChargingParameterValueTyp](#)

[e](#)

[TpChargingSessionIdRef](#)

[TpCorrelationType](#)

[TpInt32](#)

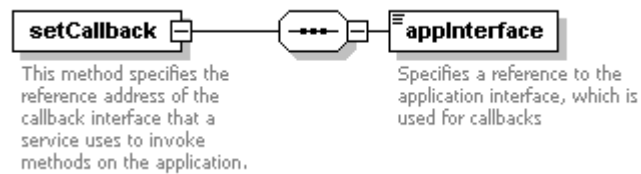
[TpSessionID](#)

[TpString](#)

[TpUnitID](#)

element **setCallback**

diagram

children [applInterface](#)

annotation

This method specifies the reference address of the callback interface that a service uses to invoke methods on the application.

documentation

source

```
<xsd:element name="setCallback">
  <xsd:annotation>
    <xsd:documentation>This method specifies the reference address of the callback interface that a
    service uses to invoke methods on the application.</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="applInterface" type="IplInterfaceRef">
        <xsd:annotation>
          <xsd:documentation>Specifies a reference to the application interface, which is used for
          callbacks</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

element **setCallback/applInterface**

diagram

type [IplInterfaceRef](#)

annotation

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

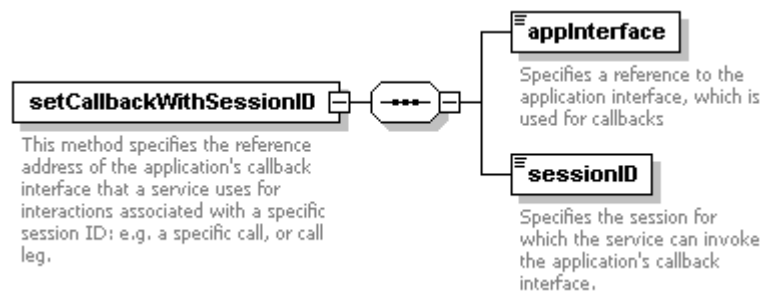
documentation

source

```
<xsd:element name="applInterface" type="IplInterfaceRef">
  <xsd:annotation>
    <xsd:documentation>Specifies a reference to the application interface, which is used for
    callbacks</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **setCallbackWithSessionID**

diagram

children [appInterface](#) [sessionID](#)

annotation

documentation

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.

source

```
<xsd:element name="setCallbackWithSessionID">
  <xsd:annotation>
    <xsd:documentation>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.</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="appInterface" type="IplInterfaceRef">
        <xsd:annotation>
          <xsd:documentation>Specifies a reference to the application interface, which is used for
          callbacks</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="sessionID" type="TpSessionID">
        <xsd:annotation>
          <xsd:documentation>Specifies the session for which the service can invoke the application's
          callback interface.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

element **setCallbackWithSessionID/appInterface**

diagram

type [IplInterfaceRef](#)

annotation

documentation

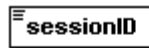
Specifies a reference to the application interface, which is used for callbacks

source

```
<xsd:element name="appInterface" type="IplInterfaceRef">
  <xsd:annotation>
    <xsd:documentation>Specifies a reference to the application interface, which is used for
    callbacks</xsd:documentation>
  </xsd:annotation>
</xsd:element>
```

element **setCallbackWithSessionID/sessionID**

diagram



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

type [TpSessionID](#)

annotation

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

documentation

source `<xsd:element name="sessionID" type="TpSessionID">``<xsd:annotation>`

`<xsd:documentation>`Specifies the session for which the service can invoke the application's callback interface.`</xsd:documentation>`

`</xsd:annotation>``</xsd:element>`

## 6.4 Schema IpChargingManager.xsd

schema location: IpChargingManager.xsd

Elements

[createChargingSession](#)  
[createChargingSessionRe](#)  
[s](#)

schema location: AllTypes.xsd

Complex types

[TpAmount](#)  
[TpChargingParameter](#)  
[TpChargingParameterSe](#)  
[t](#)  
[TpChargingPrice](#)  
[TpChargingSessionID](#)  
[TpCorrelationID](#)  
[TpMerchantAccountID](#)  
[TpPriceVolume](#)  
[TpPriceVolumeSet](#)

[TpVolume](#)  
[TpVolumeSet](#)

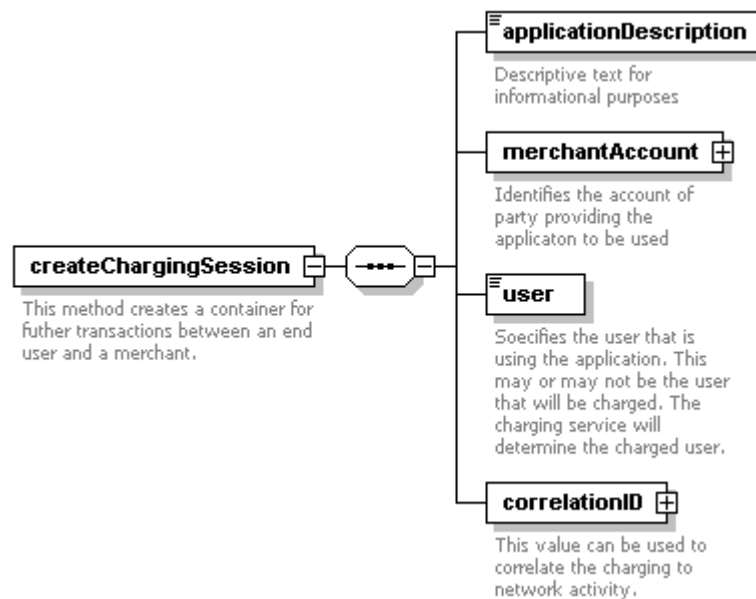
Simple types

[IpAppAmountSessionRef](#)  
[IpChargingSessionRef](#)  
[IpInterfaceRef](#)  
[TpAddress](#)  
[TpBoolean](#)  
[TpChargingError](#)  
[TpChargingParameterID](#)  
[TpChargingParameterValue](#)  
[TpChargingParameterValueTyp](#)  
[e](#)  
[TpChargingSessionIdRef](#)  
[TpCorrelationType](#)  
[TpInt32](#)  
[TpSessionID](#)  
[TpString](#)  
[TpUnitID](#)



element **createChargingSession**

diagram

children [applicationDescription](#) [merchantAccount](#) [user](#) [correlationID](#)

annotation

This method creates a container for further transactions between an end user and a merchant.

documentation

```

source <xsd:element name="createChargingSession">
  <xsd:annotation>
    <xsd:documentation>This method creates a container for further transactions between an end user
    and a merchant.</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="applicationDescription" type="TpString" nullable="true">
        <xsd:annotation>
          <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="merchantAccount" type="TpMerchantAccountID">
        <xsd:annotation>
          <xsd:documentation>Identifies the account of party providing the application to be
used</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="user" type="TpAddress">
        <xsd:annotation>
          <xsd:documentation>Specifies the user that is using the application. This may or may not be the
user that will be charged. The charging service will determine the charged user.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element name="correlationID" type="TpCorrelationID">
        <xsd:annotation>
          <xsd:documentation>This value can be used to correlate the charging to network
activity.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
  
```

element **createChargingSession/applicationDescription**

diagram

type [TpString](#)

annotation

Descriptive text for informational purposes

documentation

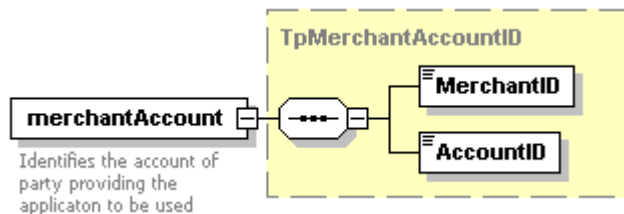
```

source <xsd:element name="applicationDescription" type="TpString" nullable="true">
  <xsd:annotation>
    <xsd:documentation>Descriptive text for informational purposes</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **createChargingSession/merchantAccount**

diagram

type [TpMerchantAccountID](#)children [MerchantID](#) [AccountID](#)

annotation

Identifies the account of party providing the applicaton to be used

documentation

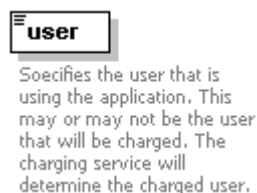
```

source <xsd:element name="merchantAccount" type="TpMerchantAccountID">
  <xsd:annotation>
    <xsd:documentation>Identifies the account of party providing the applicaton to be
used</xsd:documentation>
  </xsd:annotation>
</xsd:element>

```

element **createChargingSession/user**

diagram

type [TpAddress](#)

annotation

Soecifies the user that is using the application. This may or may not be the user that will be charged. The charging service will determine the charged user.

documentation

```

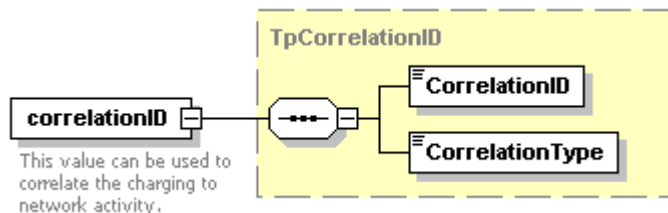
source <xsd:element name="user" type="TpAddress">
  <xsd:annotation>
    <xsd:documentation>Soecifies the user that is using the application. This may or may not be the user

```

that will be charged. The charging service will determine the charged user. </xsd:documentation>  
</xsd:annotation>  
</xsd:element>

#### element **createChargingSession/correlationID**

diagram



type [TpCorrelationID](#)

children [CorrelationID](#) [CorrelationType](#)

annotation

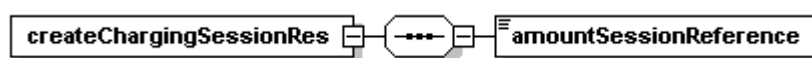
This value can be used to correlate the charging to network activity.

documentation

source <xsd:element name="correlationID" type="TpCorrelationID">  
<xsd:annotation>  
<xsd:documentation>This value can be used to correlate the charging to network activity.</xsd:documentation>  
</xsd:annotation>  
</xsd:element>

#### element **createChargingSessionRes**

diagram



children [amountSessionReference](#)

source <xsd:element name="createChargingSessionRes">  
<xsd:complexType>  
<xsd:sequence>  
<xsd:element name="amountSessionReference" type="TpChargingSessionIdRef"/>  
</xsd:sequence>  
</xsd:complexType>  
</xsd:element>

#### element **createChargingSessionRes/amountSessionReference**

diagram



type [TpChargingSessionIdRef](#)

source <xsd:element name="amountSessionReference" type="TpChargingSessionIdRef"/>

## 6.5 Schema AllTypes.xsd

schema location: AllTypes.xsd

Complex types

[TpAmount](#)

[TpChargingParameter](#)

[TpChargingParameterSe](#)

[t](#)

Simple types

[IpAppAmountSessionRef](#)

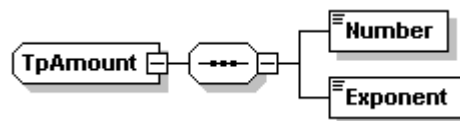
[IpChargingSessionRef](#)

[IpInterfaceRef](#)

|                                     |  |
|-------------------------------------|--|
| <a href="#">TpChargingPrice</a>     | <a href="#">TpAddress</a>                    |
| <a href="#">TpChargingSessionID</a> | <a href="#">TpBoolean</a>                    |
| <a href="#">TpCorrelationID</a>     | <a href="#">TpChargingError</a>              |
| <a href="#">TpMerchantAccountID</a> | <a href="#">TpChargingParameterID</a>        |
| <a href="#">TpPriceVolume</a>       | <a href="#">TpChargingParameterValue</a>     |
| <a href="#">TpPriceVolumeSet</a>    | <a href="#">TpChargingParameterValueType</a> |
|                                     | <a href="#">e</a>                            |
| <a href="#">TpVolume</a>            | <a href="#">TpChargingSessionIdRef</a>       |
| <a href="#">TpVolumeSet</a>         | <a href="#">TpCorrelationType</a>            |
|                                     | <a href="#">TpInt32</a>                      |
|                                     | <a href="#">TpSessionID</a>                  |
|                                     | <a href="#">TpString</a>                     |
|                                     | <a href="#">TpUnitID</a>                     |

complexType **TpAmount**

diagram

children [Number](#) [Exponent](#)used by [TpChargingPrice/Amount](#) [TpVolume/Amount](#)

elements

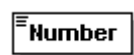
source

```

<xsd:complexType name="TpAmount">
  <xsd:sequence>
    <xsd:element name="Number" type="TpInt32"/>
    <xsd:element name="Exponent" type="TpInt32"/>
  </xsd:sequence>
</xsd:complexType>
  
```

element **TpAmount/Number**

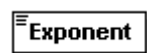
diagram

type [TpInt32](#)source 

```
<xsd:element name="Number" type="TpInt32"/>
```

element **TpAmount/Exponent**

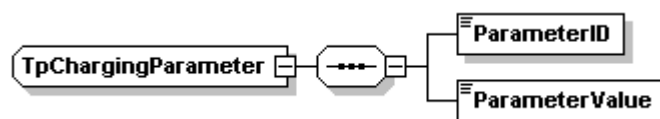
diagram

type [TpInt32](#)source 

```
<xsd:element name="Exponent" type="TpInt32"/>
```

complexType **TpChargingParameter**

diagram

children [ParameterID](#) [ParameterValue](#)used by [TpChargingParameterSet/ChargingParameter](#)

element

```

source <xsd:complexType name="TpChargingParameter">
  <xsd:sequence>
    <xsd:element name="ParameterID" type="TpChargingParameterID"/>
    <xsd:element name="ParameterValue" type="TpChargingParameterValue"/>
  </xsd:sequence>
</xsd:complexType>

```

#### element **TpChargingParameter/ParameterID**



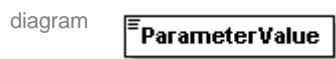
type [TpChargingParameterID](#)

```

source <xsd:element name="ParameterID" type="TpChargingParameterID"/>

```

#### element **TpChargingParameter/ParameterValue**



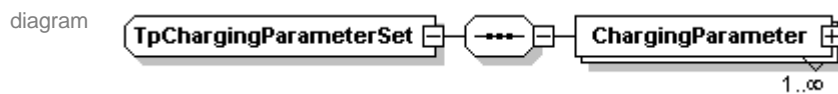
type [TpChargingParameterValue](#)

```

source <xsd:element name="ParameterValue" type="TpChargingParameterValue"/>

```

#### complexType **TpChargingParameterSet**



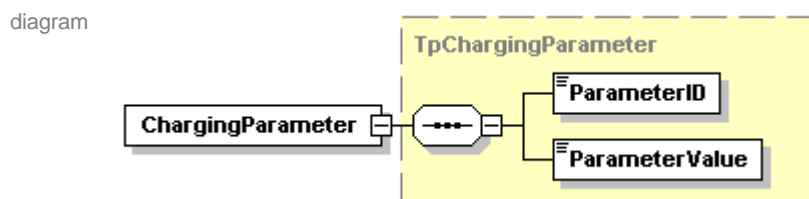
children [ChargingParameter](#)

```

source <xsd:complexType name="TpChargingParameterSet">
  <xsd:sequence>
    <xsd:element name="ChargingParameter" type="TpChargingParameter" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>

```

#### element **TpChargingParameterSet/ChargingParameter**



type [TpChargingParameter](#)

children [ParameterID](#) [ParameterValue](#)

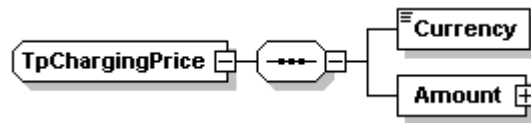
```

source <xsd:element name="ChargingParameter" type="TpChargingParameter" maxOccurs="unbounded"/>

```

complexType **TpChargingPrice**

diagram

children [Currency](#) [Amount](#)

used by

[TpPriceVolume/Price](#)

element

```

source <xsd:complexType name="TpChargingPrice">
  <xsd:sequence>
    <xsd:element name="Currency" type="TpString"/>
    <xsd:element name="Amount" type="TpAmount"/>
  </xsd:sequence>
</xsd:complexType>

```

element **TpChargingPrice/Currency**

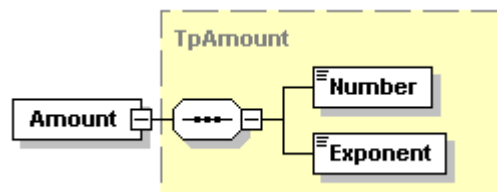
diagram

type [TpString](#)

source &lt;xsd:element name="Currency" type="TpString"/&gt;

element **TpChargingPrice/Amount**

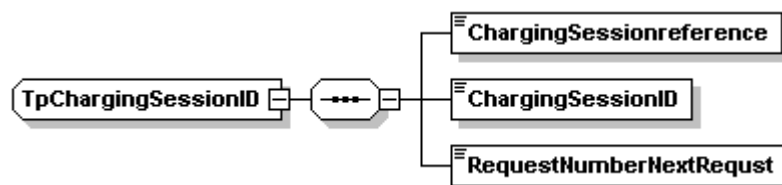
diagram

type [TpAmount](#)children [Number](#) [Exponent](#)

source &lt;xsd:element name="Amount" type="TpAmount"/&gt;

complexType **TpChargingSessionID**

diagram

children [ChargingSessionreference](#) [ChargingSessionID](#) [RequestNumberNextRequest](#)

```

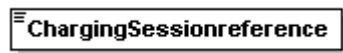
source <xsd:complexType name="TpChargingSessionID">
  <xsd:sequence>
    <xsd:element name="ChargingSessionreference" type="IpChargingSessionRef"/>
    <xsd:element name="ChargingSessionID" type="TpSessionID"/>
    <xsd:element name="RequestNumberNextRequest" type="TpInt32"/>
  </xsd:sequence>

```

```
</xsd:complexType>
```

element **TpChargingSessionID/ChargingSessionreference**

diagram



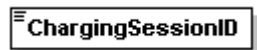
type [IpChargingSessionRef](#)

source 

```
<xsd:element name="ChargingSessionreference" type="IpChargingSessionRef"/>
```

element **TpChargingSessionID/ChargingSessionID**

diagram



type [TpSessionID](#)

source 

```
<xsd:element name="ChargingSessionID" type="TpSessionID"/>
```

element **TpChargingSessionID/RequestNumberNextRequest**

diagram



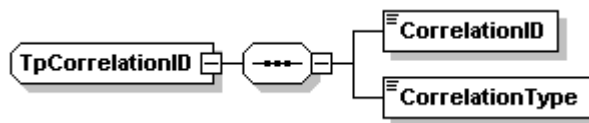
type [TpInt32](#)

source 

```
<xsd:element name="RequestNumberNextRequest" type="TpInt32"/>
```

complexType **TpCorrelationID**

diagram



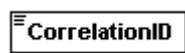
children [CorrelationID](#) [CorrelationType](#)

source 

```
<xsd:complexType name="TpCorrelationID">
  <xsd:sequence>
    <xsd:element name="CorrelationID" type="TpSessionID"/>
    <xsd:element name="CorrelationType" type="TpCorrelationType"/>
  </xsd:sequence>
</xsd:complexType>
```

element **TpCorrelationID/CorrelationID**

diagram



type [TpSessionID](#)

source 

```
<xsd:element name="CorrelationID" type="TpSessionID"/>
```

element **TpCorrelationID/CorrelationType**

diagram



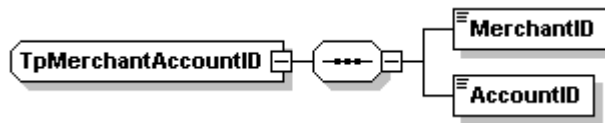
type [TpCorrelationType](#)

source 

```
<xsd:element name="CorrelationType" type="TpCorrelationType"/>
```

complexType **TpMerchantAccountID**

diagram

children [MerchantID](#) [AccountID](#)

source

```
<xsd:complexType name="TpMerchantAccountID">
  <xsd:sequence>
    <xsd:element name="MerchantID" type="TpString"/>
    <xsd:element name="AccountID" type="TpInt32"/>
  </xsd:sequence>
</xsd:complexType>
```

element **TpMerchantAccountID/MerchantID**

diagram

type [TpString](#)

source

```
<xsd:element name="MerchantID" type="TpString"/>
```

element **TpMerchantAccountID/AccountID**

diagram

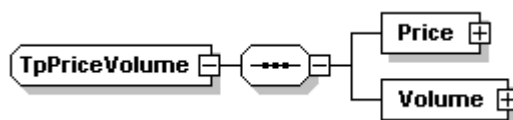
type [TpInt32](#)

source

```
<xsd:element name="AccountID" type="TpInt32"/>
```

complexType **TpPriceVolume**

diagram

children [Price](#) [Volume](#)

used by [TpPriceVolumeSet/TpPriceVolume](#)

element

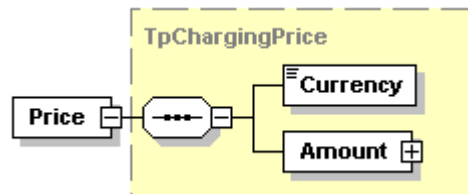
source

```
<xsd:complexType name="TpPriceVolume">
  <xsd:sequence>
    <xsd:element name="Price" type="TpChargingPrice"/>
    <xsd:element name="Volume" type="TpVolume"/>
  </xsd:sequence>
</xsd:complexType>
```

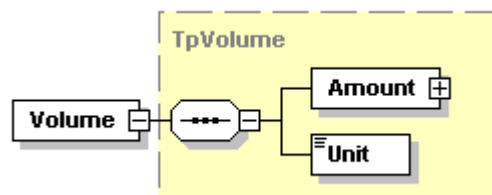


element  **TpPriceVolume/Price**

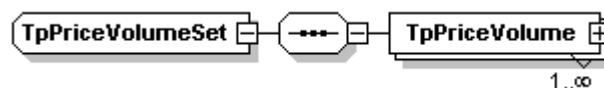
diagram

type [TpChargingPrice](#)children [Currency](#) [Amount](#)source `<xsd:element name="Price" type="TpChargingPrice"/>`element  **TpPriceVolume/Volume**

diagram

type [TpVolume](#)children [Amount](#) [Unit](#)source `<xsd:element name="Volume" type="TpVolume"/>`complexType  **TpPriceVolumeSet**

diagram

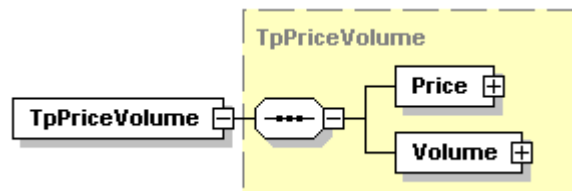
children [TpPriceVolume](#)

```

source
<xsd:complexType name="TpPriceVolumeSet">
  <xsd:sequence>
    <xsd:element name="TpPriceVolume" type="TpPriceVolume" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>
  
```

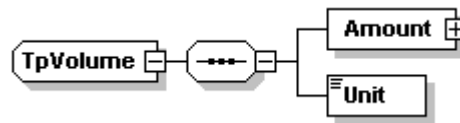
element  **TpPriceVolumeSet/TpPriceVolume**

diagram

type [TpPriceVolume](#)children [Price](#) [Volume](#)source `<xsd:element name="TpPriceVolume" type="TpPriceVolume" maxOccurs="unbounded"/>`

complexType **TpVolume**

diagram

children [Amount Unit](#)used by [TpVolumeSet/TpVolume](#) [TpPriceVolume/Volume](#)

elements

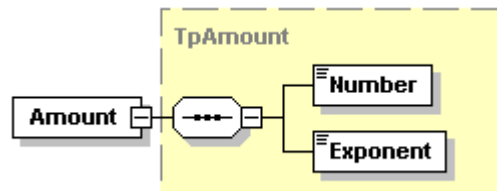
```

source <xsd:complexType name="TpVolume">
  <xsd:sequence>
    <xsd:element name="Amount" type="TpAmount"/>
    <xsd:element name="Unit" type="TpUnitID"/>
  </xsd:sequence>
</xsd:complexType>

```

element  **TpVolume/Amount**

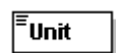
diagram

type [TpAmount](#)children [Number Exponent](#)source 

```
<xsd:element name="Amount" type="TpAmount"/>
```

element  **TpVolume/Unit**

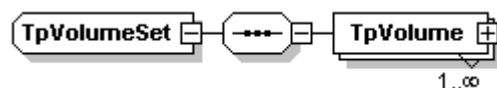
diagram

type [TpUnitID](#)source 

```
<xsd:element name="Unit" type="TpUnitID"/>
```

complexType  **TpVolumeSet**

diagram

children [TpVolume](#)

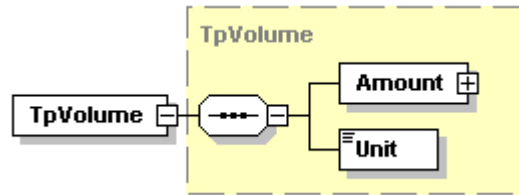
```

source <xsd:complexType name="TpVolumeSet">
  <xsd:sequence>
    <xsd:element name="TpVolume" type="TpVolume" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>

```

element **TpVolumeSet/TpVolume**

diagram

type [TpVolume](#)children [Amount](#) [Unit](#)source `<xsd:element name="TpVolume" type="TpVolume" maxOccurs="unbounded"/>`simpleType **IpAppAmountSessionRef**type **xsd:string**source `<xsd:simpleType name="IpAppAmountSessionRef">  
<xsd:restriction base="xsd:string"/>  
</xsd:simpleType>`simpleType **IpChargingSessionRef**type **xsd:string**used by [TpChargingSessionID/ChargingSessionreference](#)

element

source `<xsd:simpleType name="IpChargingSessionRef">  
<xsd:restriction base="xsd:string"/>  
</xsd:simpleType>`simpleType **IpInterfaceRef**type **xsd:string**source `<xsd:simpleType name="IpInterfaceRef">  
<xsd:restriction base="xsd:string"/>  
</xsd:simpleType>`simpleType **TpAddress**type **xsd:string**source `<xsd:simpleType name="TpAddress">  
<xsd:restriction base="xsd:string"/>  
</xsd:simpleType>`simpleType **TpBoolean**type **xsd:boolean**source `<xsd:simpleType name="TpBoolean">  
<xsd:restriction base="xsd:boolean"/>  
</xsd:simpleType>`

**simpleType TpChargingError**type **xsd:string**

```
source <xsd:simpleType name="TpChargingError">
  <xsd:restriction base="xsd:string"/>
</xsd:simpleType>
```

**simpleType TpChargingParameterID**type **xsd:long**

used by

[TpChargingParameter/ParameterID](#)

element

```
source <xsd:simpleType name="TpChargingParameterID">
  <xsd:restriction base="xsd:long"/>
</xsd:simpleType>
```

**simpleType TpChargingParameterValue**type [TpChargingParameterValueType](#)

used by

[TpChargingParameter/ParameterValue](#)

element

```
source <xsd:simpleType name="TpChargingParameterValue">
  <xsd:restriction base="TpChargingParameterValueType"/>
</xsd:simpleType>
```

**simpleType TpChargingParameterValueType**type **xsd:integer**

used by

[TpChargingParameterValue](#)

simpleType

```
source <xsd:simpleType name="TpChargingParameterValueType">
  <xsd:restriction base="xsd:integer"/>
</xsd:simpleType>
```

**simpleType TpChargingSessionIdRef**type **xsd:string**

```
source <xsd:simpleType name="TpChargingSessionIdRef">
  <xsd:restriction base="xsd:string"/>
</xsd:simpleType>
```

**simpleType TpCorrelationType**type **xsd:long**

used by

[TpCorrelationID/CorrelationType](#)

element

```
source <xsd:simpleType name="TpCorrelationType">
  <xsd:restriction base="xsd:long"/>
```

```
</xsd:simpleType>
```

simpleType **TpInt32**

type **xsd:long**

used by

[TpMerchantAccountID/AccountID](#) [TpAmount/Exponent](#) [TpAmount/Number](#)  
[TpChargingSessionID/RequestNumberNextRequest](#)

elements

source 

```
<xsd:simpleType name="TpInt32">
  <xsd:restriction base="xsd:long"/>
</xsd:simpleType>
```

simpleType **TpSessionID**

type **xsd:string**

used by

[TpChargingSessionID/ChargingSessionID](#) [TpCorrelationID/CorrelationID](#)

elements

source 

```
<xsd:simpleType name="TpSessionID">
  <xsd:restriction base="xsd:string"/>
</xsd:simpleType>
```

simpleType **TpString**

type **xsd:string**

used by

[TpChargingPrice/Currency](#) [TpMerchantAccountID/MerchantID](#)

elements

source 

```
<xsd:simpleType name="TpString">
  <xsd:restriction base="xsd:string"/>
</xsd:simpleType>
```

simpleType **TpUnitID**

type **xsd:long**

used by

[TpVolume/Unit](#)

element

source 

```
<xsd:simpleType name="TpUnitID">
  <xsd:restriction base="xsd:long"/>
</xsd:simpleType>
```

## 7 Examples

### 7.1 Immediate Charge Example

|                             |   |
|-----------------------------|---|
| 1: createCharginSession     | <pre>&lt;?xml version="1.0" encoding="UTF-8"?&gt; &lt;createChargingSession xmlns:xsi="http://www.w3.org/2000/10/XMLSchema- instance" xsi:noNamespaceSchemaLocation="IpChargingManager.xsd"&gt;   &lt;applicationDescription&gt;HTML Page charging&lt;/applicationDescription&gt;   &lt;merchantAccount&gt;     &lt;MerchantID&gt;234&lt;/MerchantID&gt;     &lt;AccountID&gt;5678&lt;/AccountID&gt;   &lt;/merchantAccount&gt;   &lt;user&gt;192.168.100.1&lt;/user&gt; &lt;/createChargingSession&gt;</pre>   |
| 2: createChargingSessionRes | <pre>&lt;?xml version="1.0" encoding="UTF-8"?&gt; &lt;createChargingSessionRes xmlns:xsi="http://www.w3.org/2000/10/XMLSchema- instance" xsi:noNamespaceSchemaLocation="IpChargingManager.xsd"&gt;   &lt;amountSessionReference&gt;http://www.somewhere.com/ChargingSession?12 3456789&lt;/amountSessionReference&gt; &lt;/createChargingSessionRes&gt;</pre>   |
| 3: debitAmountReq           | <pre>&lt;?xml version="1.0" encoding="UTF-8"?&gt; &lt;debitAmountReq xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance" xsi:noNamespaceSchemaLocation="IpChargingSession.xsd"&gt;   &lt;sessionID&gt;123456789&lt;/sessionID&gt;   &lt;applicationDescription&gt;Thank you for buying at XYZ&lt;/applicationDescription&gt;   &lt;amount&gt;     &lt;Currency&gt;\$&lt;/Currency&gt;     &lt;Amount&gt;       &lt;Number&gt;1&lt;/Number&gt;       &lt;Exponent&gt;-2&lt;/Exponent&gt;     &lt;/Amount&gt;   &lt;/amount&gt;   &lt;closeReservation&gt;false&lt;/closeReservation&gt;   &lt;requestNumber&gt;1&lt;/requestNumber&gt;   &lt;chargingParameters&gt;     &lt;ChargingParameter&gt;       &lt;ParameterID&gt;1&lt;/ParameterID&gt;       &lt;ParameterValue&gt;12&lt;/ParameterValue&gt;     &lt;/ChargingParameter&gt;   &lt;/chargingParameters&gt; &lt;/debitAmountReq&gt;</pre> |
| 3.1: debitAmountRes         | <pre>&lt;?xml version="1.0" encoding="UTF-8"?&gt; &lt;debitAmountRes xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance" xsi:noNamespaceSchemaLocation="IpAppChargingSession.xsd"&gt;   &lt;sessionID&gt;123456789&lt;/sessionID&gt;   &lt;debitedAmount&gt;     &lt;Currency&gt;\$&lt;/Currency&gt;     &lt;Amount&gt;       &lt;Number&gt;1&lt;/Number&gt;       &lt;Exponent&gt;-2&lt;/Exponent&gt;     &lt;/Amount&gt;   &lt;/debitedAmount&gt;   &lt;reservedAmountLeft&gt;     &lt;Currency/&gt;     &lt;Amount&gt;       &lt;Number&gt;1299&lt;/Number&gt;       &lt;Exponent&gt;-2&lt;/Exponent&gt;     &lt;/Amount&gt;   &lt;/reservedAmountLeft&gt;   &lt;requestNumberNextRequest&gt;2&lt;/requestNumberNextRequest&gt; &lt;/debitAmountRes&gt;</pre>   |
| 4: debitAmountReq           | <pre>&lt;?xml version="1.0" encoding="UTF-8"?&gt; &lt;debitAmountReq xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance" xsi:noNamespaceSchemaLocation="IpChargingSession.xsd"&gt;</pre>   |

|                   |  |
|-------------------|--|
|                   | <pre> &lt;sessionID&gt;123456789&lt;/sessionID&gt; &lt;applicationDescription&gt;Thank you for buying at XYZ&lt;/applicationDescription&gt; &lt;amount&gt;   &lt;Currency&gt;\$&lt;/Currency&gt;   &lt;Amount&gt;     &lt;Number&gt;1&lt;/Number&gt;     &lt;Exponent&gt;-2&lt;/Exponent&gt;   &lt;/Amount&gt; &lt;/amount&gt; &lt;closeReservation&gt;&gt;false&lt;/closeReservation&gt; &lt;requestNumber&gt;2&lt;/requestNumber&gt; &lt;chargingParameters&gt;   &lt;ChargingParameter&gt;     &lt;ParameterID&gt;1&lt;/ParameterID&gt;     &lt;ParameterValue&gt;14&lt;/ParameterValue&gt;   &lt;/ChargingParameter&gt; &lt;/chargingParameters&gt; &lt;/debitAmountReq&gt; </pre> |
| 5: debitAmountErr | <pre> &lt;?xml version="1.0" encoding="UTF-8"?&gt; &lt;debitAmountErr xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance" xsi:noNamespaceSchemaLocation="IpAppChargingSession.xsd"&gt;   &lt;sessionID&gt;123456789&lt;/sessionID&gt;   &lt;error&gt;4&lt;/error&gt;   &lt;requestNumberNextRequest&gt;2&lt;/requestNumberNextRequest&gt; &lt;/debitAmountErr&gt; </pre>  |
| 6: release        | <pre> &lt;?xml version="1.0" encoding="UTF-8"?&gt; &lt;release xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance" xsi:noNamespaceSchemaLocation="IpChargingSession.xsd"&gt;   &lt;sessionID&gt;123456789&lt;/sessionID&gt;   &lt;requestNumber&gt;2&lt;/requestNumber&gt; &lt;/release&gt; </pre>  |

## 7.2 Further Examples

### 7.2.1 reserveUnitRes()

```

<?xml version="1.0" encoding="UTF-8"?>
<reserveUnitRes xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="IpAppChargingSession.xsd">
  <sessionID>123456789</sessionID>
  <debitedVolumes>
    <TpVolume>
      <Amount>
        <Number>678</Number>
        <Exponent>-1</Exponent>
      </Amount>
      <Unit>2</Unit>
    </TpVolume>
    <TpVolume>
      <Amount>
        <Number>345</Number>
        <Exponent>-2</Exponent>
      </Amount>
      <Unit>3</Unit>
    </TpVolume>
  </debitedVolumes>
  <sessionTimeLeft>12</sessionTimeLeft>
  <requestNumberNextRequest>10</requestNumberNextRequest>
</reserveUnitRes>

```

### 7.2.2 rateReq()

```

<?xml version="1.0" encoding="UTF-8"?>

```

```
<rateReq xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="IpChargingSession.xsd">
  <sessionID>123456789</sessionID>
  <chargingParameters>
    <ChargingParameter>
      <ParameterID>1</ParameterID>
      <ParameterValue>11</ParameterValue>
    </ChargingParameter>
    <ChargingParameter>
      <ParameterID>2</ParameterID>
      <ParameterValue>22</ParameterValue>
    </ChargingParameter>
  </chargingParameters>
</rateReq>
```

### 7.2.3 debitAmountRes()

```
<?xml version="1.0" encoding="UTF-8"?>
<debitAmountRes xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="IpAppChargingSession.xsd">
  <sessionID>12345678</sessionID>
  <debitedAmount>
    <Currency>EURO</Currency>
    <Amount>
      <Number>345676</Number>
      <Exponent>-2</Exponent>
    </Amount>
  </debitedAmount>
  <reservedAmountLeft>
    <Currency>EURO</Currency>
    <Amount>
      <Number>1234</Number>
      <Exponent>-2</Exponent>
    </Amount>
  </reservedAmountLeft>
  <requestNumberNextRequest>11</requestNumberNextRequest>
</debitAmountRes>
```