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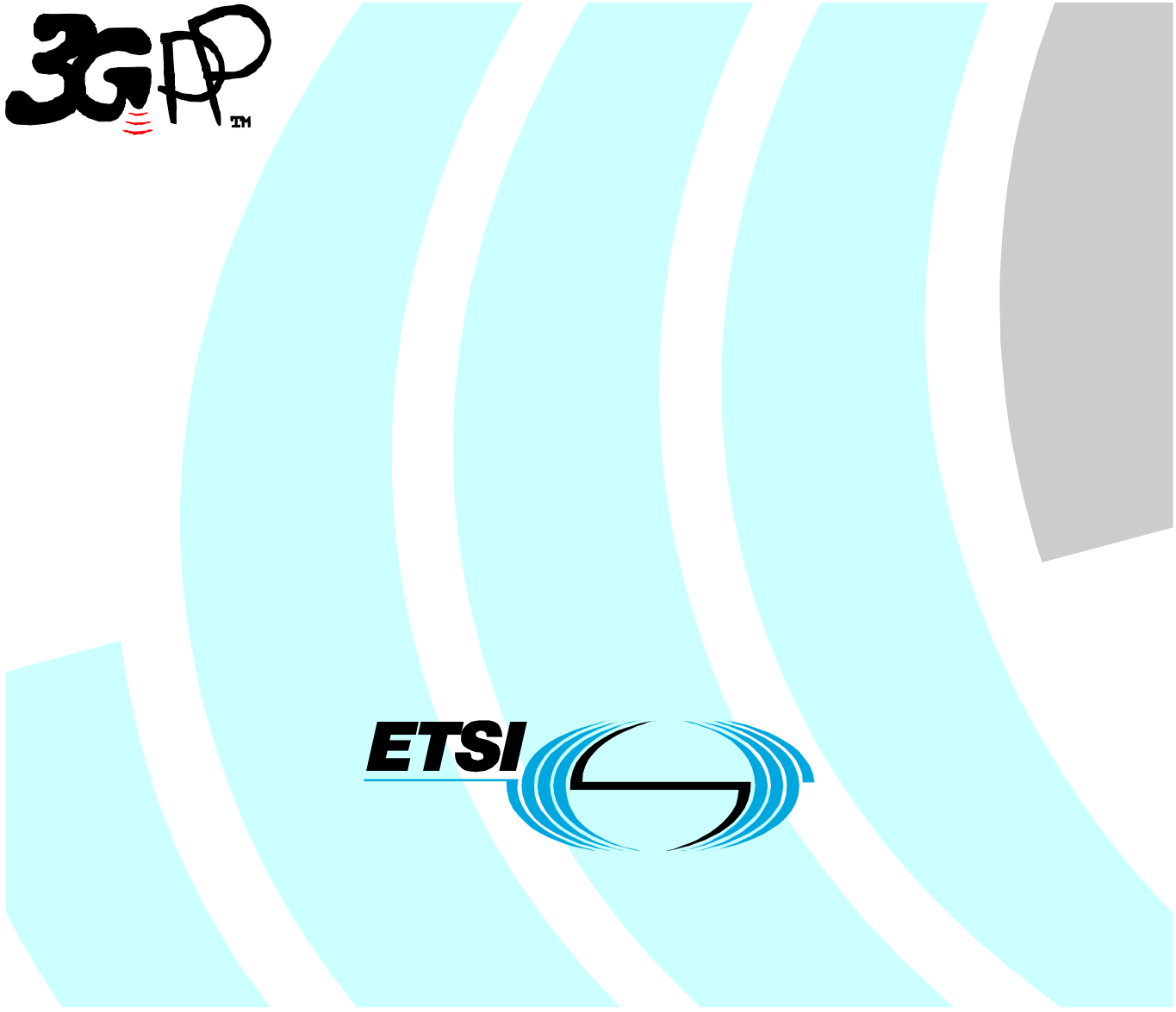
Technical Specification

Universal Mobile Telecommunications System (UMTS);
Open Service Access (OSA);
Parlay X web services;
Part 6: Payment
(3GPP TS 29.199-06 version 6.2.0 Release 6)



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650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
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Foreword

This Technical Specification (TS) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under http://webapp.etsi.org/key/queryform.asp .

Contents

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

3GPP acknowledges the contribution of the Parlay X Web Services specifications from The Parlay Group. The Parlay Group is pleased to see 3GPP acknowledge and publish the present document, and the Parlay Group looks forward to working with the 3GPP community to improve future versions of the present document.

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
  - 2 presented to TSG for approval;
  - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

Introduction

The present document is part 6 of a multi-part deliverable covering the 3rd Generation Partnership Project; Technical Specification Group Core Network and Terminals; Open Service Access (OSA); Parlay X Web Services, as identified below:

Part 1: "Common";
Part 2: "Third party call";
Part 3: "Call Notification";
Part 4: "Short Messaging";
Part 5: "Multimedia Messaging";
Part 6: "Payment";
Part 7: "Account management";
Part 8: "Terminal Status";
Part 9: "Terminal location";
Part 10: "Call handling";
Part 11: "Audio call";
Part 12: "Multimedia conference";
Part 13: "Address list management";
Part 14: "Presence".

1 Scope

The present document is Part 6 of the Stage 3 Parlay X Web Services specification for Open Service Access (OSA).

The OSA specifications define an architecture that enables application developers to make use of network functionality through an open standardized interface, i.e. the OSA APIs. The concepts and the functional architecture for the OSA are contained in 3GPP TS 23.127 [3]. The requirements for OSA are contained in 3GPP TS 22.127 [2].

The present document specifies the Payment Web Service aspects of the interface. All aspects of the Payment Web Service are defined here, these being:

- Name spaces.
- Sequence diagrams.
- Data definitions.
- Interface specification plus detailed method descriptions.
- Fault definitions.
- Service policies.
- WSDL Description of the interfaces.

The present document has been defined jointly between 3GPP TSG CT WG5, ETSI TISPAN and The Parlay Group.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 22.127: "Service Requirement for the Open Services Access (OSA); Stage 1".

[3] 3GPP TS 23.127: "Virtual Home Environment (VHE) / Open Service Access (OSA); Stage 2".

[4] 3GPP TS 22.101: "Service aspects; Service principles".

[5] W3C Recommendation (2 May 2001): "XML Schema Part 2: Datatypes".

NOTE: Available at http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/.

[6] 3GPP TS 29.199-1: "Open Service Access (OSA); Parlay X Web Services; Part 1: Common".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TS 29.199-1 [6] apply.

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TS 29.199-1 [6] apply.

4 Detailed service description

A vast amount of content, both information and entertainment, will be made available to subscribers. To support a business model that enables operators to offer integrated billing, a payment API is crucial. Open and inter-operable "payment APIs" are the key to market growth and investment protection. The Payment Web Service supports payments for any content in an open, Web-like environment.

The Payment Web Service described in the present document supports payment reservation, pre-paid payments, and post-paid payments. It supports charging of both volume and currency amounts, a conversion function and a settlement function in case of a financially resolved dispute.

Note that certain parameters are negotiated off line. For example the currency, volume type, default reservation enforcement time, as well as the taxation procedures and parameters.

An example of an application scenario could be a multimedia service. Assume a subscriber is interested in receiving a stream of, say, a soccer match. The subscriber selects a match and establishes a trusted relation with the provider. Again, the provider obtains the MSISDN and other information from the subscriber. The subscriber wants to know what the service will cost and the provider interacts with the operators rating engine (**getAmount**) taking into account the subscriber's subscription, time of day, etc. The value returned is a **ChargingInformation** amount and is printed on the page that is displayed at the MS. The subscriber then decides to stream the match to his MS. Subsequently, the provider will reserve the appropriate amount with the operator (**reserveAmount**) to ensure that the subscriber can fulfil his payment obligations. The match starts and the provider periodically charges against the reservation (**chargeReservation**). The match ends in a draw and is extended with a 'sudden death' phase. The subscriber continues listening, so the existing reservation is enlarged (**reserveAdditionalAmount**). Suddenly, one of the teams scores a goal, so the match abruptly ends, leaving part of the reserved amount unused. The provider now releases the reservation (**releaseReservation**), and the remaining amount is available for future use by the subscriber.

Now we can extend this scenario by having the subscriber participate in a game of chance in which the provider refunds a percentage of the usage costs (**refundAmount**) based on the ranking of a particular team in this tournament. For example, the subscriber gambling on the team that wins the tournament receives a full refund, while for gambling on the team that finishes in second place, the refund is 50%, etc.

5 Namespaces

The AmountCharging interface uses the namespace:

http://www.csapi.org/wsdl/parlayx/payment/amount_charging/v2_1

The VolumeCharging interface uses the namespace:

http://www.csapi.org/wsdl/parlayx/payment/volume_charging/v2_1

The ReserveAmountCharging interface uses the namespace:

http://www.csapi.org/wsdl/parlayx/payment/reserve_amount_charging/v2_1

The ReserveVolumeCharging interface uses the namespace:

http://www.csapi.org/wsdl/parlayx/payment/reserve_volume_charging/v2_1

The data types are defined in the namespace:

http://www.csapi.org/schema/parlayx/payment/v2_1

The 'xsd' namespace is used in the present document to refer to the XML Schema data types defined in XML Schema [5]. The use of the name 'xsd' is not semantically significant.

6 Sequence diagrams

6.1 Charge for content

Assume a subscriber is interested in downloading a ring tone to his device. The subscriber selects a ring tone and establishes a trusted relation with the ring tone provider. Essentially, the ring tone provider obtains the address (MSISDN) and other information from the subscriber. The ring tone may be downloaded to the device using SMS. As soon as the download succeeds, the provider of the ring tone will charge the subscriber (**chargeAmount)**.

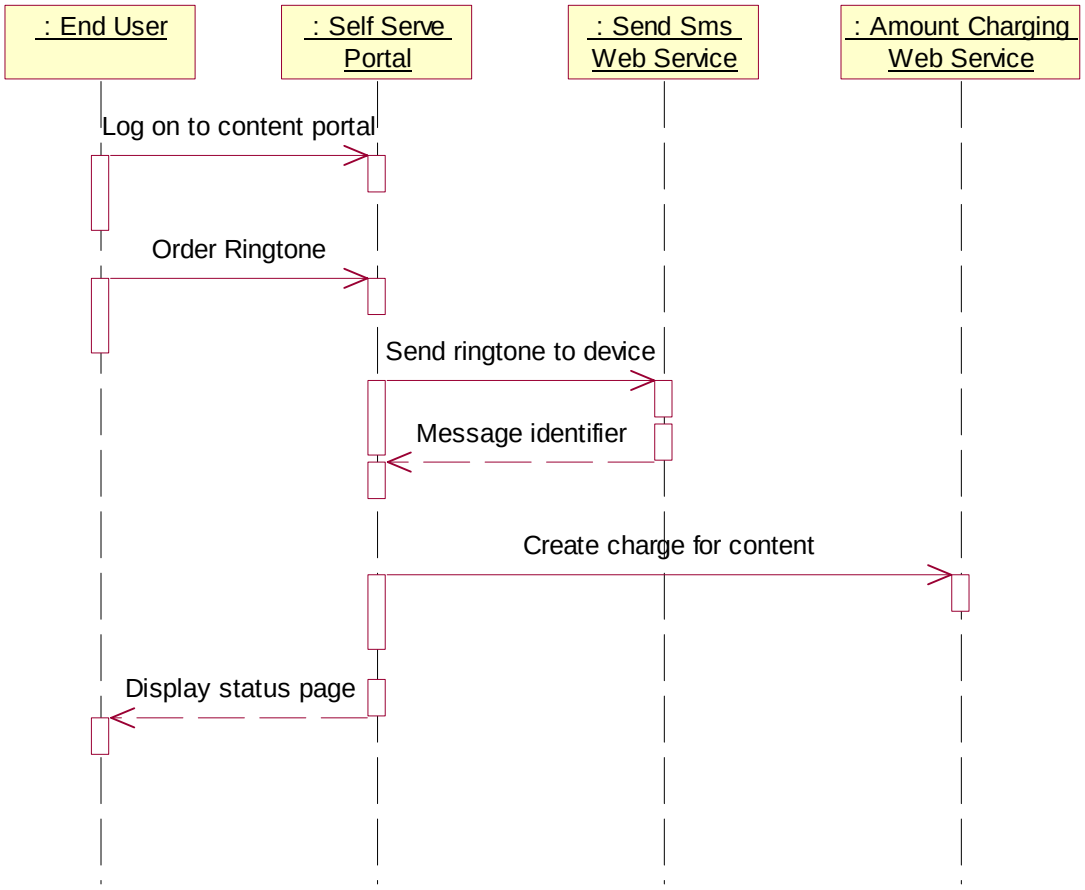

Figure 1

7 XML Schema data type definition

7.1 Property structure

Property with a name and value.

Name	Type	Optional	Description
Name	xsd:string	No	Name of property
Value	xsd:string	No	Value of property

8 Web Service interface definition

8.1 Interface: AmountCharging

Charge operations by amount.

8.1.1 Operation: ChargeAmount

This message results in directly charging to the account indicated by the end user identifier. The charge is specified as a **ChargingInformation**, consisting of information on the amount to be charged and a description to appear on the bill. The reference code is used to uniquely identify the request; it is the application's responsibility to provide a unique reference code within the scope of the application.

8.1.1 Operation: ChargeAmount

This message results in directly charging to the account indicated by the end user identifier. The charge is specified as ChargingInformation, consisting of information on the amonunt to be charged and a description to appear on the bill. The reference code is used to uniquely identify the request; it is the application's responsibility to provide a unique reference code within the scope of the application.

8.1.1.1 Input message: ChargeAmountRequest

Part name	Part type	Optional	Description
endUserIdentifier	xsd:anyURI	No	The end user's account to be charged
charge	parlayx_common_xsd:ChargingInformation	No	Information on the charge to be made. In the ChargingInformation the description-field is information to appear on the bill. The amount to be charged appears either directly in the amount-field or as code in the code-field. If both these two fields are missing or empty a service exception (SVC0007) will be thrown. The currency-field, if used, holds the currency to be used for the charging.
referenceCode	xsd:string	No	Textual information to uniquely identify the request, e.g. in case of disputes

8.1.1.2 Output message: ChargeAmountResponse

Part name	Part type	Optional	Description
None			

8.1.1.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.
- SVC0007 - Invalid charging information
- SVC0270 - Charge failed.

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.1.2 Operation: RefundAmount

This message results in directly applying a refund to the account indicated by the end user identifier. The refund is specified as a currency amount. The billing text field is used for textual information to appear on the bill. The reference code is used to uniquely identify the request; it is the application's responsibility to provide a unique reference code within the scope of the application.

8.1.2.1 Input message: RefundAmountRequest

Part name	Part type	Optional	Description
endUserIdentifier	xsd:anyURI	No	The end user's account to be refunded
charge	parlayx_common_xsd:ChargingInformation	No	Information on the charge to be refunded. In the ChargingInformation the description-field is information to appear on the bill. The charge to be refunded appears either directly in the amount-field or as code in the code-field. If both these two fields are missing or empty a service exception (SVC0007) will be thrown. The currency-field, if used, holds the currency to be used for the charging.
referenceCode	xsd:string	No	Textual information to uniquely identify the request, e.g. in case of disputes

8.1.2.2 Output message: RefundAmountResponse

Part name	Part type	Optional	Description
None			

8.1.2.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.
- SVC0270 - Charge failed.
- SVC0007 - Invalid charging information

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.2 Interface: VolumeCharging

Charging operations by volume.

8.2.1 Operation: ChargeVolume

This message results in directly charging to the account indicated by the end user identifier. The charge is specified as a volume. The billing text field is used for textual information to appear on the bill. The reference code is used to uniquely identify the request; it is the application's responsibility to provide a unique reference code within the scope of the application.

8.2.1.1 Input message: ChargeVolumeRequest

Part name	Part type	Optional	Description
endUserIdentifier	xsd:anyURI	No	The end user's account to be charged
volume	xsd:long	No	The volume to be charged
billingText	xsd:string	No	Textual information to appear on the bill
referenceCode	xsd:string	No	Textual information to uniquely identify the request, e.g. in case of disputes
parameters	Property [0..unbounded]	Yes	Parameters to use to perform rating ('unit', 'contract', 'service', 'operation')

8.2.1.2 Output message: ChargeVolumeResponse

Part name	Part type	Optional	Description
None			

8.2.1.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.
- SVC0270 - Charge failed.

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.2.2 Operation: GetAmount

This message results in converting the given volume to a currency amount. The end user identifier is given to indicate the subscriber for whom this conversion calculation must be made. The message returns a currency amount if successful.

The following properties may be provided:

- unit, specifying the unit used for measuring volume (e.g. bytes);
- contract, number of a contract that may govern the use;
- service, name of the service to be used (e.g. SendMultimediaMessage);
- operation, name of the operation to be used (e.g. SendMessage).

8.2.2.1 Input message: GetAmountRequest

Part name	Part type	Optional	Description
endUserIdentifier	xsd:anyURI	No	The end user's account to be charged
volume	xsd:long	No	The volume to be converted
parameters	Property [0..unbounded]	Yes	Parameters to use to perform rating ('unit', 'contract', 'service', 'operation')

8.2.2.2 Output message: GetAmountResponse

Part name	Part type	Optional	Description
result	parlayx_common_xsd:ChargingInformation	No	The conversion process results in the return of ChargingInformation where the description amount and currency fields must be filled.

8.2.2.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.2.3 Operation: RefundVolume

This message results in directly applying a refund to the account indicated by the end user identifier. The refund is specified as a volume. The billing text field is used for textual information to appear on the bill. The reference code is used to uniquely identify the request; it is the application's responsibility to provide a unique reference code within the scope of the application.

8.2.3.1 Input message: RefundVolumeRequest

Part name	Part type	Optional	Description
endUserIdentifier	xsd:anyURI	No	The end user's account to be refunded
volume	xsd:long	No	The volume to be refunded
billingText	xsd:string	No	Textual information to appear on the bill
referenceCode	xsd:string	No	Textual information to uniquely identify the request, e.g. in case of disputes
parameters	Property [0..unbounded]	Yes	Parameters to use to perform rating ('unit', 'contract', 'service', 'operation')

8.2.3.2 Output message: RefundVolumeResponse

Part name	Part type	Optional	Description
None			

8.2.3.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.
- SVC0270 - Charge failed.

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.3 Interface: ReserveAmountCharging

Operations to manage reservation charging by amount.

8.3.1 Operation: ReserveAmount

This message results in directly reserving an amount for an account indicated by the end user identifier. The reservation is specified as ChargingInformation. Note that reservations do not last forever; it is assumed the default reservation enforcement time is negotiated off-line. If the reservation times out, the remaining funds will be returned to the account from which this reservation was made. However, the remaining funds shall preferably be returned explicitly to the account using the **releaseReservation** message. The description text field of the ChargingInformation is used for textual information to appear on the bill. Subsequent textual information provided during this charging session will be appended to this textual information; one charging session to a reservation will result in only one entry on the bill. In case of success, a reservation id is returned for future reference; e.g. subsequent charging against the existing reservation using the **chargeReservation** message.

8.3.1.1 Input message: ReserveAmountRequest

Part name	Part type	Optional	Description
endUserIdentifier	xsd:anyURI	No	The end user's account subject to the reservation
charge	parlayx_common_xsd:ChargingInformation	No	Information on the charge to be reserved. In the ChargingInformation the description-field is information to appear on the bill. The charge to be reserved appears either directly in the amount-field or as code in the code-field. If both these two fields are missing or empty a service exception (SVC0007) will be thrown. The currency-field, if used, holds the currency to be used for the charging.

8.3.1.2 Output message: ReserveAmountResponse

Part name	Part type	Optional	Description
result	xsd:string	No	It is an identifier for the newly created reservation

8.3.1.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.
- SVC0007 - Invalid charging information

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.3.2 Operation: ReserveAdditionalAmount

This message results in the addition/reduction of a currency amount to/from an existing reservation indicated by the reservation id. The reservation is specified as a currency amount. Note that reservations do not last forever; it is assumed the default reservation enforcement time is negotiated off-line. Invoking this message will extend the reservation enforcement time for another off-line-negotiated period. The description text field of ChargingInformation is used for appending textual information to appear on the bill. The textual information is appended to the initial textual

information given by the **reserveAmount** message; one charging session to a reservation will result in only one entry on the bill. Reserved credit can be returned to the account through the **releaseReservation** message.

8.3.2.1 Input message: ReserveAdditionalAmountRequest

Part name	Part type	Optional	Description
reservationIdentifier	xsd:string	No	An identifier for the reservation to be amended
charge	parlayx_common_xsd:ChargingInformation	No	Information on the charge to be added to (or subtracted from) the reservation. In the ChargingInformation the description-field is information to appear on the bill. The charge to be reserved appears either directly in the amount-field or as code in the code-field. If both these two fields are missing or empty a service exception (SVC0007) will be thrown. The currency-field is not applicable: the currency is defined only when the reservation is established (i.e. the ReserveAmount operation is invoked).

8.3.2.2 Output message : ReserveAdditionalAmountResponse

Part name	Part type	Optional	Description
None			

8.3.2.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.
- SVC0007 - Invalid charging information

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.3.3 Operation: ChargeReservation

This message results in charging to a reservation indicated by the reservation id. Reservations, identified by reservation id, are established through invoking the **reserveAmount** message. The charge is specified as ChargingInformation. The description field of the ChargingInformation is used for appending textual information to appear on the bill. The textual information is appended to the initial textual information given by the **reserveAmount** message; one charging session to a reservation will result in only one entry on the bill. The reference code is used to uniquely identify the request; it is the application's responsibility to provide a unique reference code within the scope of the application.

8.3.3.1 Input message: ChargeReservationRequest

Part name	Part type	Optional	Description
reservationIdentifier	xsd:string	No	An identifier for the reservation to be charged
charge	parlayx_common_xsd:ChargingInformation	No	Information on the reservation to be charged. In the ChargingInformation the description-field is information to appear on the bill. The reserved amount to be charged appears either directly in the amount-field or as code in the code-field. If both these two fields are missing or empty a service exception (SVC0007) will be thrown. The currency-field is not applicable: the currency is defined only when the reservation is established (i.e. the ReserveAmount operation is invoked).
referenceCode	xsd:string	No	Textual information to uniquely identify the request, e.g. in case of disputes

8.3.3.2 Output message: ChargeReservationResponse

Part name	Part type	Optional	Description
None			

8.3.3.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.
- SVC0007 - Invalid charging information
- SVC0270 - Charge failed.

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.3.4 Operation: ReleaseReservation

Returns funds left in a reservation indicated by reservation id to the account from which this reservation was made. Reservations, identified by reservation id, are established by invoking the reserveAmount message.

8.3.4.1 Input message: ReleaseReservationRequest

Part name	Part type	Optional	Description
reservationIdentifier	xsd:string	No	An identifier for the reservation to be released

8.3.4.2 Output message: ReleaseReservationResponse

Part name	Part type	Optional	Description
None			

8.3.4.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.4 Interface: ReserveVolumeCharging

Operations to manage reservation charging by amount.

8.4.1 Operation: GetAmount

Returns the amount resulting from converting the given volume. The end user identifier is given to indicate the subscriber for whom this calculation must be made. The message returns a currency amount if successful.

The following properties may be provided:

- unit, specifying the unit used for measuring volume (e.g. bytes);
- contract, number of a contract that may govern the use;
- service, name of the service to be used (e.g. SendMultimediaMessage);
- operation, name of the operation to be used (e.g. SendMessage).

8.4.1.1 Input message: GetAmountRequest

Part name	Part type	Optional	Description
endUserIdentifier	xsd:anyURI	No	The end user's account to be charged
volume	xsd:long	No	The volume to be converted
parameters	Property [0..unbounded]	Yes	Parameters to use to perform rating ('unit', 'contract', 'service', 'operation')

8.4.1.2 Output message : GetAmountResponse

Part name	Part type	Optional	Description
result	parlayx_common_xsd:ChargingInformation	No	It is the currency amount resulting from the conversion process The conversion process results in the return of ChargingInformation where the description amount and currency fields must be filled.

8.4.1.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.

- SVC0002 - Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.4.2 Operation: ReserveVolume

Reserves an amount of an account indicated by the end user identifier. The reservation is specified as a volume. Note that reservations do not last forever; it is assumed the default reservation enforcement time is negotiated off-line. If the reservation times out, the remaining volume will be returned to the account from which this reservation was made. However, the remaining volume should preferably be returned explicitly to the account using the **releaseReservation** message. The billing text field is used for textual information to appear on the bill. Subsequent textual information provided during this charging session will be appended to this textual information; one charging session to a reservation will result in only one entry on the bill. In case of success, a reservation identifier is returned for future reference; e.g. subsequent charging against the existing reservation using the **chargeReservation** message.

8.4.2.1 Input message: ReserveVolumeRequest

Part name	Part type	Optional	Description
endUserIdentifier	xsd:anyURI	No	The end user's account subject to the reservation
volume	xsd:long	No	The volume of the reservation
billingText	xsd:string	No	Textual information to appear on the bill
parameters	Property [0..unbounded]	Yes	Parameters to use to perform rating ('unit', 'contract', 'service', 'operation'). There is a maximum of one instance of each parameter type. Example, for the request 'reserve 5 minutes of the gold video service', the volume part value is 5 and the parameters part has the following properties: • 'unit'=minutes • 'contract'=gold • 'service'=video

8.4.2.2 Output message: ReserveVolumeResponse

Part name	Part type	Optional	Description
result	xsd:string	No	It is an identifier for the newly created reservation

8.4.2.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.4.3 Operation: ReserveAdditionalVolume

Adds/reduces a volume to an existing reservation indicated by the reservation id. The reservation is specified as a volume. Note that reservations do not last forever; it is assumed the default reservation enforcement time is negotiated off-line. Invoking this message will extend the reservation enforcement time for another off-line-negotiated period. The billing text field is used for appending textual information to appear on the bill. The textual information is appended to the initial textual information given by the **reserveVolume** message; one charging session to a reservation will result in only one entry on the bill. A reserved credit can be returned to the account through the **releaseReservation** message.

8.4.3.1 Input message: ReserveAdditionalVolumeRequest

Part name	Part type	Optional	Description
reservationIdentifier	xsd:string	No	An identifier for the reservation to be amended
volume	xsd:long	No	The volume to be added to (or subtracted from) the reservation. [Note the associated rating parameters are the same as those defined in the parameters part of the original ReserveVolumeRequest message.]
billingText	xsd:string	No	Textual information to appear on the bill

8.4.3.2 Output message: ReserveAdditionalVolumeResponse

Part name	Part type	Optional	Description
None			

8.4.3.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.4.4 Operation: ChargeReservation

This message results in charging to a reservation indicated by the reservation id.. Reservations, identified by reservation id., are established through invoking the **reserveVolume** message. The charge is specified as a volume. Optionally, the billing text field can be used for appending textual information to appear on the bill. The textual information is appended to the initial textual information given by the **reserveVolume** message; one charging session to a reservation will result in only one entry on the bill. The reference code is used to uniquely identify the request; it is the application's responsibility to provide a unique reference code within the scope of the application.

8.4.4.1 Input message: ChargeReservationRequest

Part name	Part type	Optional	Description
reservationIdentifier	xsd:string	No	An identifier for the reservation to be charged
volume	xsd:long	No	The volume to be charged. [Note the associated rating parameters are the same as those defined in the parameters part of the original ReserveVolumeRequest message.]
billingText	xsd:string	Yes	Textual information to appear on the bill
referenceCode	xsd:string	No	Textual information to uniquely identify the request, e.g. in case of disputes

8.4.4.2 Output message: ChargeReservationResponse

Part name	Part type	Optional	Description
None			

8.4.4.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.

- SVC0002 - Invalid input value.
- SVC0270 - Charge failed.

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

8.4.5 Operation: ReleaseReservation

Returns funds left in a reservation indicated by reservation id. to the account from which this reservation was made. Reservations, identified by reservation id., are established through invoking the **reserveVolume** message.

8.4.5.1 Input message: ReleaseReservationRequest

Part name	Part type	Optional	Description
reservationIdentifier	xsd:string	No	An identifier for the reservation to be released

8.4.5.2 Output message: ReleaseReservationResponse

Part name	Part type	Optional	Description
None			

8.4.5.3 Referenced faults

ServiceException from 3GPP TS 29.199-1 [6]:

- SVC0001 - Service error.
- SVC0002 - Invalid input value.

PolicyException from 3GPP TS 29.199-1 [6]:

- POL0001 - Policy error.

9 Fault definitions

9.1 ServiceException

9.1.1 SVC0270: Charge failed

Name	Description
Message Id	SVC0270
Text	Charging operation failed, the charge was not applied.
Variables	None

10 Service policies

Name	Type	Description
Currency	xsd:string	Currency used by service (per ISO 4217)

Annex A (normative): WSDL for Payment

The document/literal WSDL representation of this interface specification is compliant to 3GPP TS 29.199-1 [6] and is contained in text files (contained in archive 29199-06-620-doclit.zip) which accompanies the present document.

Annex B (informative): Change history

Change history							
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Subject/Comment**	**Old**	**New**
Dec 2003	CN_21	NP-030552	--	--	Submitted to CN#22 for Information	1.0.0	
Jan 2004	--	--	--	--	Added The W3C WSDL representation of the APIs specified in the present document is contained in a set of files which accompany the present document: px0326rpcenc.zip px0326rpclit.zip	1.0.1	
Jun 2004	CN_24	NP-040274	--	--	Split into multi-part specification. 29.199-0n, for n=1,2…9. Submitted to CN#24 for Information	1.0.3	
Sep 2004	CN_25	NP-040360	--	--	Draft v200 submitted to TSG CN#25 for Approval.	2.0.0	6.0.0
Jun 2005	CT_28	CP-050160	0001	--	Add additional parameters for volume charging	6.0.0	6.1.0
Jun 2005	CT_28	CP-050160	0002	--	Wrong datatype used in Amount Interface	6.0.0	6.1.0
Jun 2005	CT_28	CP-050221	0003	--	Optionals for Part 6	6.0.0	6.1.0
Dec 2005	CT_30	CP-050571	0004	--	Clarify scope of currency and volume reservations	6.1.0	6.2.0
Dec 2005	CT_30	CP-050571	0005	--	Inconsistent part naming in PX response messages	6.1.0	6.2.0

History

Document history		
V6.0.0	January 2005	Publication
V6.1.0	June 2005	Publication
V6.2.0	December 2005	Publication