



CBS Balance Query Interface

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1. Introduction

1.1. Purpose of document

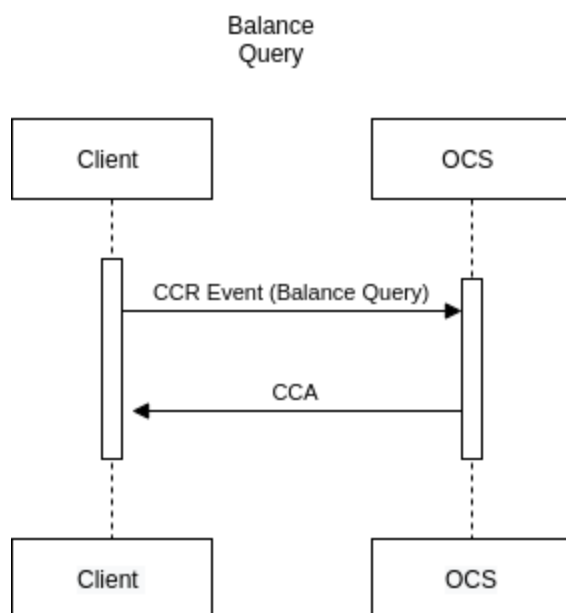
The purpose of the document is to describe the SafariONE CBS Balance Query interface

2. Balance Query Interface

2.1. Overview

The charging Model for Balance Query services is Immediate Event Charging (IEC). Below are service flow, request and response message formats, and AVP descriptions of the Balance Query over diameter interface.

2.2. Charging Message Flow



2.3. Request Message Format (Balance Query)

```

<Credit-Control-Request> ::= < Diameter Header: 272, REQ, PXY >
<Session-Id>
{ Origin-Host }
{ Origin-Realm }
[ Destination-Host ]
{ Destination-Realm }
{ Auth-Application-Id }
{ Service-Context-Id }          --balancequery@safarione.com
{ CC-Request-Type }
{ CC-Request-Number }
[ Requested-Action ]
[ Event-Timestamp ]
[ Subscription-Id ]
    { Subscription-Id-Type }
    { Subscription-Id-Data }
[ Agent-Info ]
    { Agent-LoginID }
    { Agent-Password }
[ Account-Information ]
    [ Account-Id ]
    [ Account-Type ]

```

2.4. Response Message Format (Balance Query)

```

<Credit-Control-Answer> ::= < Diameter Header: 272, PXY >
<Session-Id>
{ Result-Code }
{ Origin-Host }
{ Origin-Realm }
{ Auth-Application-Id }
{ CC-Request-Type }
{ CC-Request-Number }
*[ Account-Information ]
    [ Account-Id ]
    [ Balance-Information ]
        [ Balance-Amount ]
        [ CC-Money ]
            { Unit-Value }
            { Value-Digits }
            [ Exponent ]

```

```

    [ Currency-Code ]
  [ CC-Time ]
  [ CC-Total-Octets ]
  [ CC-Service-Specific-Units ]
[ Expiry-Time ]
[ Resource-Balance ]
  *[ Resource ]
    [ Counter-Id ]
    [ Bundle-Id ]
    [ Account-Type ]
    [ Counter-Name ]
    [ Counter-Balance ]
      [ CC-Time ]
      [ CC-Total-Octets ]
      [ CC-Service-Specific-Units ]
    [ Effective-From ]
    [ Effective-To ]

```

2.5. Requested Action Values

SN	Balance Query Request	CC-Request-Type	Requested-Action
1	Balance Query	4 (EVENT_REQUEST)	18

2.6. AVP Description

AVP Name	AVP Code	Data Type	Presence	Vendor-ID	Description
Session-Id	263	UTF8String	M		The Session-Id AVP is used to identify a specific session. All messages pertaining to a specific session MUST include only one Session-Id AVP and the same value MUST be used throughout the life of a session. Each session-id is eternally unique.

Auth-Application-Id	258	Unsigned32	M		The Auth-Application-Id AVP is used in order to advertise support of the Authentication and Authorization portion of an application.
Service-Context-Id	461	UTF8String	M		The Service-Context-Id AVP contains a unique identifier of the Diameter credit-control service-specific document that applies to the request.
CC-Request-Type	416	Enumerated	M		The CC-Request-Type AVP contains the reason for sending the credit-control request message.
CC-Request-Number	415	Unsigned32	M		The CC-Request-Number AVP identifies this request within one session.
Requested-Action	436	Enumerated			The Requested-Action AVP contains the requested action being sent by the Credit-Control-Request command where the CC-Request-Type is set to EVENT_REQUEST. For Balance Query Interface possible values can be 18 BALANCE QUERY
Event-Timestamp	55	integer	M		The Event-Timestamp AVP MAY be included in Charging-Request and Charging-Answer messages to record the time that the reported event occurred, in seconds since January 1, 1900 00:00 UTC.
Subscription-Id	443	Grouped	M		The Subscription-Id AVP identifies the end user's subscription. It is a grouped AVP and contains Subscription-Id-Type and Subscription-Id-Data AVPs.
Subscription-Id-Type	450	Enumerated	M		The Subscription-Id-Type AVP is used to determine which type of identifier is carried by the Subscription-Id AVP.

Subscription-Id-Data	444	UTF8String	M		This AVP contains the data of type identified by Subscription-Id-Type AVP.
Agent-Info	10039	UTF8String		9999	Grouped AVP Contains Initiating Agent/System LoginID and Password
Agent-LoginID	10001	UTF8String	M	9999	Contains Initiating Agent/System LoginID
Agent-Password	10002	UTF8String	M	9999	Contains Initiating Agent/System Password
Account-Information	9000	Grouped		9999	Grouped AVP contains Accounts-related Information
Balance-Information	10023	Grouped		9999	Grouped AVP contains an updated balance of the account after Balance Query
Balance-Amount	10024	Grouped		9999	Grouped AVP contains Balance Amount in the Chargingform of CC-Money (for Main Accounts) / CC-Time (for Voice Bundle) / CC-Total-Octets (for Data Bundle) / CC-Service-Specific-Units (for SMS Bundle)
Expiry-Time	10025	UTF8String		9999	Contains Expiry Time of Account Balance
Account-Id	9002	Integer32		9999	Contains Account Id of which Balance has to be returned
Account-Type	10028	Unsigned32		9999	Contains Type of Account of which Balance has to be returned Values can be: 0 = Main Account 1 = Mobile Money 2 = External Bank Account 5 = External IN Account 6 = Reseller Agent Account 7 = VoIP Account 8 = Carrier Account

					2000 = Voice Bundle Account 3000 = Data Bundle Account 4000 = SMS Bundle Account
Resource-Balance	10044	Grouped		9999	Grouped AVP Contains subscriber Resource/Counter Balance
Counter-Id	10045	Unsigned32		9999	Counter Id of Resource
Bundle-Id	9259	Integer32		9999	Bundle Id of Resource
Counter-Name	10046	UTF8String		9999	Name of Resource
Counter-Balance	10047	Grouped		9999	Grouped AVP contains Resource balance in any of following AVPs CC-Time for voice CC-Total-Octets for Data CC-Service-Specific-Units for SMS and other
Effective-From	10048	UTF8String		9999	Resource Validity Start Date
Effective-To	10049	UTF8String		9999	Resource Validity End Date
Resource	10050	Grouped		9999	Grouped AVP which contains all Counter Related Info. It can be one or more times inside the packet.
Origin-Host	264	DiameterIdentity	M		The Origin-Host AVP identifies the endpoint that originated the Diameter message.
Origin-Realm	296	DiameterIdentity	M		This AVP contains the Realm of the originator of any Diameter message and MUST be present in all messages. This AVP SHOULD be placed as close to the Diameter header as possible.

Destination-Host	293	DiameterIdentity	M		The Destination-Host AVP identifies the endpoint for which the Diameter message is intended.
Destination-Realm	283	DiameterIdentity	M		The Destination-Realm AVP contains the realm to which the message is to be routed.
Result-Code	268	Unsigned32	M		The Result-Code AVP indicates whether a particular request was completed successfully or whether an error occurred.
Error-Message	281	UTF8String	M		The Error-Message AVP contains text that is returned in the Credit-Control-Answer. It may contain the success reply message or the error reply message.