



# **Dialog Idea Mart Pro CAAS API Guide for Dialog Axiata PLC**

Product Version 1.3.0



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## Change Control

Version	Date	Description	Author
1.0.0	27/12/11	Final Documentation	hSenid Mobile Technical Writing Team
1.1.0	15/05/12	Baselined to send to customer after updates	hSenid Mobile Technical Writing Team
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1.2.1	27/07/12	Added CAAS details to the document	hSenid Mobile Technical Writing Team
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## About this document

The purpose of this document is to provide developing information on Idea Mart API for CAAS services.

The intended audience for this document is the Application Developers.

The document is divided into the following chapters:

Chapter	Description
Overview	This chapter gives a brief description of document content.
HTTP Rest	This chapter gives a brief description of involvement of HTTP REST in the context.
CAAS	This chapter gives a brief description of CAAS Service.

# Chapter 1

## 1 Overview

This chapter describes how the Service Providers can use the HTTP-based Interfaces from Idea Mart for SMS, USSD and CAAS services. For more details on each service please refer the relevant document.

### 1.1 SMS Service

The SMS Interface allows applications to send and receive SMS messages using a HTTP-based API. Supported services are as follows:

- **Send Service** – An application wishing to initiate an MT (Mobile Terminated) SMS message should use this operation type.
- **Receive Service** – This retrieves the SMS sent to the application.
- **Status Report Service** – If an application when performing a **Send service** Operation had requested for a status report from Idea Mart, then the **Idea Mart** will initiate the **status report** service to hand over the status report to the application.

### 1.2 USSD

The USSD Interface allows applications to initiate USSD sessions using a HTTP-based API. Supported services are as follows:

- **Send Service** – An application wishing to send response to MO USSD session should call this method.
- **Deliver Service** – Deliver Service can be either a user initiated session or a response to an existing USSD session.

### 1.3 CAAS

Applications have Caas NCS access if charging as a service requests are required by the application.

- **Query Balance** – This service retrieves the account balance and other related information of a given subscriber MSISDN.
- **Direct Debit** – This service charges a specific amount from a subscriber's account.

## Chapter 2

# 2 HTTP REST

In this context, both requests/responses used to exchange information are with content type "application/json".

## 2.1 JSON Objects

JSON objects are used as content type to communicate between application and Idea Mart. JSON is an open, text-based data exchange format; it is human-readable, platform independent, and supports a wide availability of implementations.

## Chapter 3

### 3 CAAS

Applications have Caas NCS access if charging as a service requests are required by the application.

#### 3.1 Query Balance

This service retrieves the account balance and other related information of a given subscriber MSISDN. Account information comprises of Account type (Pre paid or Post paid) and Account's status (Activate or Disable).

##### 3.1.1 Request

Following is a sample request for query balance service.

```
{
  "applicationId": "APP_000018",
  "password": "95904999aa8edb0c038b3295fdd271de",
  "subscriberId": "94776351232"
}
```

Following are the Request parameters of send service.

Parameter Name	Description	Type	M / O
applicationId	Used to identify the application. This is a unique identifier generated while provisioning an application.  Only a single value can be sent per request.	String (32)	M
password	Used to authenticate the application originated message against the service providers credentials.  Encoded, single value.	String(32)	M



subscriberId	This can be the MSISDN or the Username of the subscriber whose account balance is being queried.  <b>Note:</b> tel might be a masked number depending on the type of the application  Only a single value can be sent per request.	String	M
paymentInstrumentName	The name of the payment instrument.  Only a single value can be sent per request.	Enumerator	M
accountId	The account of the payment instrument.  Only a single value can be sent per request.	String	O
currency	The currency of the amount.  Only a single value can be sent per request.  Only 'LKR' is allowed.	String	O

Comprehensive sample request:

```
{
  "applicationId": "APP_000018",
  "password": "95904999aa8edb0c038b3295fdd271de",
  "subscriberId": "94776351232",
  "paymentInstrumentName": "MobileAccount",
  "accountId": "12345",
  "currency": "LKR"
}
```

### 3.1.2 Response

Following are the response parameters of query balance service.

Parameter Name	Description	Type	M / O
accountType	Account type of the subscriber id. E.g. Prepaid/Post paid for GSM domain.  Only a single set of elements can be sent per request.	String	M

accountStatus	Account status of the subscriber ID  Only a single set of elements can be sent per request	String	M
statusCode	Status of the operation.  Only a single set of elements can be sent per request.	String	M
statusDetail	The textual description of the operation's status.  Only a single set of elements can be sent per request.	String	M
chargeableBalance	Available chargeable balance of the subscriber.  Refers to either remaining account balance (prepaid user) or the difference between credit limit and outstanding bill (postpaid user).  Only a single value can be sent per request.	String  (rounded up to two decimal points)	M

Comprehensive sample response:

```
{  
  "chargeableBalance": "300.0",  
  "statusCode": "S1000",  
  "statusDetail": "Success",  
  "accountStatus": "Active",  
  "accountType": "Pre Paid"  
}
```

## 3.2 Direct Debit

This service charges a specific amount from a subscriber's account.

### 3.2.1 Request

Following is a sample request for direct debit service.

```
{
  "applicationId": "APP_000017",
  "password": "95904999aa8edb0c038b3295fdd271de",
  "externalTrxId": "12345678901234567890123456789012",
  "subscriberId": "94776351232",
  "amount": "100"
}
```

Following are the request parameters of deliver service.

Parameter Name	Description	Type	M / O
applicationId	Used to identify the application. This is a unique identifier generated by the SDP when provisioning an application.  Only a single value can be sent per request.	String(32)	M
password	Used to authenticate the application originated message against the service providers credentials.  Encoded, single value.	String(32)	M
externalTrxId	This is the transaction ID generated by the application to map the request with the response.  This is needed to avoid any conflicts when SP inquires about a transaction.  Only a single value can be sent per request.	String(32)	M

subscriberId	<p>This can be the MSISDN the subscriber to be charged. This is a unique identifier.</p> <p>Tel: is for MSISDN</p> <p>Subscriber: tel:947758456325</p> <p><b>Note:</b> tel might be a masked number depending on the type of the application</p> <p>Only a single value can be sent per request.</p>	String	M
paymentInstrumentName	<p>The name of the payment instrument.</p> <p>Only a single value can be sent per request.</p>	Enumerator	M
accountId	<p>The account of the payment instrument.</p> <p>Only a single value can be sent per request.</p>	String	O
amount	<p>Amount to be reserved for charging.</p> <p>Only a single value can be sent per request.</p>	String (rounded up to two decimal points)	M
currency	<p>The currency of the amount.</p> <p>Only a single value can be sent per request.</p> <p>Only 'LKR' is allowed.</p>	String	O

Comprehensive sample request:

```
{
  "applicationId": "APP_000017",
  "password": "95904999aa8edb0c038b3295fdd271de",
  "externalTrxId": "12345678901234567890123456789012",
  "subscriberId": "94776351232",
  "paymentInstrumentName": "MobileAccount",
  "accountId": "123456",
  "currency": "LKR",
  "amount": "100"
}
```

### 3.2.2 Response

Following are the response parameters of deliver service.

Parameter Name	Description	Type	M / O
externalTrxId	The transaction ID generated by the application to map the request with the response.  Only a single value can be sent per request.	String	M
internalTrxId	Internal Transaction ID generated by the Payment Gateway for the transaction. This is unique per transaction.  Only a single value can be sent per request.	String(32)	M
referenceId	Unique number generated by the system for the payment request. This is required to be entered in the external charging system/menu.	8 digits	O
timeStamp	System date and time of success or failed transaction.  Only a single value can be sent per request.	Date/Time string in ISO-8601 format e.g. '2011-08-23T16:50:31.418+05:30'	
statusCode	Status of the operation.  Only a single set of elements can be sent per request.	String	M
statusDetail	The textual description of the operation's status.  Only a single set of elements can be sent per request.	String	M

Comprehensive sample response:

```
{
  "statusCode": "S1000",
  "timeStamp": "2012-07-30T12:48:10-0400",
  "shortDescription": "Long Description",
  "statusDetail": "Success",
  "externalTrxId": "12345678901234567890123456789012",
  "longDescription": "short Description",
  "internalTrxId": "321"
}
```

## Appendix a

### Status Codes and Error Codes

#### Status Codes (Non Retry able)

Code	Description
S1000	Process completed successfully for all the available destination numbers.

#### Error Codes (Non Retry able)

Code	Description
E1313	Authentication failed. No such active application with applicationId <application-id>, or no active service provider or the given password in the request is invalid.
E1303	IP address from which this request originated is not provisioned to send request to application <application-id>. Please use a provisioned system to send request or contact system admin to provision the new IP.
E1317	<MSISDN> in request is invalid or not allowed.
E1328	Charging operation {operation} not allowed. Please check the NCS configuration.
E1337	Duplicate request.
E1601	System experienced an unexpected error.
E1343	MSISDN is not white listed. Only white list numbers are allowed to send messages at this state.

## Error Codes (Retry able)

Code	Description
E1318	Transaction limit per second has exceeded. Please throttle requests not to exceed the transaction limit. Contact Idea Mart admin to increase the traffic limit.
E1319	Transaction limit for today is exceeded. Please try again tomorrow or contact Idea Mart admin to increase the transaction per day limit
E1326	Insufficient balance.
E1602	Message delivery failed. Please retry
E1603	Temporary System Error occurred while delivering your request.



## Appendix b

What follows is a list of definitions of all terms, acronyms and abbreviations required to properly interpret this document.

- NCS – Network Capability Service
- SMS –Simple Message Service
- HTTP – Hyper Text Transfer Protocol
- MO – Mobile Originated
- MT – Mobile Terminated
- MSISDN – Mobile Station Integrated Services Digital Network
- SLA – Service Level Agreement