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# **DIGITAL SDP**

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API DOCUMENT



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## Revision History

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# Contents

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Scope of the document .....	1
<b>2</b>	<b>API Details.....</b>	<b>1</b>
<b>2.1</b>	<b>Get Token API .....</b>	<b>1</b>
2.1.1	Request Parameter Details .....	2
2.1.2	Request Header Parameters .....	2
2.1.3	Response Parameter Details .....	2
2.1.4	Sample Request Body .....	3
2.1.5	Sample Response Body .....	3
<b>2.2</b>	<b>Refresh Token API .....</b>	<b>4</b>
2.2.1	Request Parameter Details .....	4
2.2.2	Request Header Parameters .....	4
2.2.3	Response Parameter Details .....	4
2.2.4	Sample Request Body .....	5
2.2.5	Sample Response Body .....	5
<b>2.3</b>	<b>Subscription API.....</b>	<b>5</b>
2.3.1	Request Parameter Details .....	5
2.3.2	Request Header Parameters .....	6
2.3.3	Response Parameter Details .....	6
2.3.4	Sample Request Body .....	8
2.3.5	Sample Response Body .....	9
<b>2.4</b>	<b>Subscription De-activation .....</b>	<b>10</b>
2.4.1	Request Parameter Details .....	10
2.4.2	Request Header Parameters .....	11
2.4.3	Request Packet.....	11
2.4.4	ResponseParameter Details.....	12
2.4.5	Response Packet .....	13
<b>2.5</b>	<b>SENDSMS .....</b>	<b>14</b>
2.5.1	Request Parameter Details .....	14
2.5.2	Request Header Parameters .....	15
2.5.3	Request Packet.....	16
2.5.4	Response Parameter Details .....	16
2.5.5	Response Packet .....	18
<b>2.6</b>	<b>BulkSMS .....</b>	<b>19</b>
2.6.1	Sample Request.....	19
2.6.2	Sample Response .....	20
2.6.3	Request Parameter Details .....	20
2.6.4	MSISDN Handling; Clear and Encrypted MSISDN. ....	21
<b>2.7</b>	<b>CP Notification .....</b>	<b>23</b>
2.7.1	Request Packet.....	23
2.7.2	Request Parameter .....	23
2.7.3	Other CP Notification Examples .....	27
2.7.4	ERROR CODE -BULK .....	33

# 1 Introduction

**Service delivery platform** empowers operator networks to deliver content **services** to the end user with high efficiency. Content & service providers get features such as accelerated **service creation and management**. The Centralized subscription manager enables faster time to market for new services.

## 1.1 Scope of the document

This document covers introduction to SDP system, API details supported by the SDP system. This document will be used by Content/Service Providers to integrate to SDP system.

Supported API	API Description
Subscription	This section describes interface provided by SDP as the server for a partner to subscribe to a service.
UnSubscription	This section describes interface provided by SDP as the server for a partner to unsubscribe from a service.
SendSMS	This section describes the interface provided by SDP as the server for a partner to send SMS messages functioning as client.
BulkSMS	This section describes the interface provided by SDP as a server for a partner to send bulk messages.

## 2 API Details

SDP System provides a common point for various third-party systems to connect to the SDP application. The APIs are described in detail with sample message formats in the following sections.

### 2.1 Get Token API

This API should be triggered by Content partners with assigned credentials to get Access token and Refresh token.

#### ENDPOINT URL:

Testbed: **POST** <https://dtsvc.safaricom.com:8480/api/auth/login>

Production 1: **POST** <https://dsvc.safaricom.com:9480/api/auth/login>

Production 2: **POST** <https://dsvc2.safaricom.com:9480/api/auth/login>

**Note:** The production end point complements each other, and CP is at liberty to use both at the same time or any of them.

## 2.1.1 Request Parameter Details

Field Name	Description	Data Type	Mandatory/ Optional	Example
username	Token generation username allocated by the SDP to the partner after successful registration.	String	M	Sixdee
Password	Token generation password allocated by the SDP to the partner after successful registration.	String	M	Sixdee@1wers

## 2.1.2 Request Header Parameters

Header Parameters	Values
Content-Type	application/json
X-Requested-With	XMLHttpRequest

## 2.1.3 Response Parameter Details

Field Name	Description	Data Type	Mandatory /Optional	Example
msg	It contains the description message.	String	M	You have been Authenticated to access this protected API System
token	The generated token will be used in http header to access the authorized API's. Token generated will be having 30 min validity and therefore content provider need to either generate new ones or refresh the token before the 30 min expiry	String	M	"eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0dXNlcilslmF1ZCI6IkFDQ0VTUyIsInNjb3BlcyI6IkFETUIOlwiiaXNzIjoiaHR0cDovL3NpeGRlZS5jb20iLCJpYXQiOiE1Njk0OTc1MjksImV4cCI6MTU3NDI5NzUyOX0.-u2Db8OSDhtlTMoFqIZYTgs6u4Ib_voynEA6k7ZwiqJqaPQ1_CnUaARxearSpC_

				BC-78_k-rzOr3v2Jdb9_KaA"
refreshToken	RefreshToken is used to generate new token when assigned token is expired.			eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0dXNlcilslmF1ZCI6IiJFRlJFU0giLCJzY29wZXMiOiJBRE1JTilslmlzcyI6Imh0dHA6Ly9zaXhkZWUuY29tliwianRpljoiZGlzOTk4OTYtMTU0ZS00ZDFjLTg1NmYtNTUyMDE2MDU3MDVklwiiaWF0IjoxNTY5NDk3NTI1LCJleHAiOiE1ODAyOTc1MjI9.uD7fvaMigBI0a2GC00fteqtTx79Elil1CFxRtXz5CTs1qRhJYUVsD0ZjF5Q13J9btY-5ppuzFDqDFkFfUpZAMw

## 2.1.4 Sample Request Body

```
{
  "username": "sdp",
  "password": "sdpuser@12345"
}
```

## 2.1.5 Sample Response Body

```
{
  "msg": "You have been Authenticated to access this protected API System.",
  "token":
    "eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0dXNlcilslmF1ZCI6IiJFRlJFU0giLCJzY29wZXMiOiJBRE1JTilslmlzcyI6Imh0dHA6Ly9zaXhkZWUuY29tliwianRpljoiZGlzOTk4OTYtMTU0ZS00ZDFjLTg1NmYtNTUyMDE2MDU3MDVklwiiaWF0IjoxNTY5NDk3NTI1LCJleHAiOiE1ODAyOTc1MjI9.uD7fvaMigBI0a2GC00fteqtTx79Elil1CFxRtXz5CTs1qRhJYUVsD0ZjF5Q13J9btY-5ppuzFDqDFkFfUpZAMw"
  "refreshToken":
    "eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0dXNlcilslmF1ZCI6IiJFRlJFU0giLCJzY29wZXMiOiJBRE1JTilslmlzcyI6Imh0dHA6Ly9zaXhkZWUuY29tliwianRpljoiZGlzOTk4OTYtMTU0ZS00ZDFjLTg1NmYtNTUyMDE2MDU3MDVklwiiaWF0IjoxNTY5NDk3NTI1LCJleHAiOiE1ODAyOTc1MjI9.uD7fvaMigBI0a2GC00fteqtTx79Elil1CFxRtXz5CTs1qRhJYUVsD0ZjF5Q13J9btY-5ppuzFDqDFkFfUpZAMw"
}
```

## 2.2 Refresh Token API

Refresh Token API is used to regenerate access token when access Token has expired or before it expires.

### ENDPOINT URL:

Testbed: **GET** <https://dtsvc.safaricom.com:8480/api/auth/RefreshToken>

Production 1: **GET** <https://dsvc.safaricom.com:9480/api/auth/RefreshToken>

Production 2: **GET** <https://dsvc2.safaricom.com:9480/api/auth/RefreshToken>

**Note:** The production end point complements each other, and CP is at liberty to use both at the same time or any of them.

### 2.2.1 Request Parameter Details

**Note:** This is a Get Method. Add the refresh token picked from the token generation API onto the X-Authorization header the request.

### 2.2.2 Request Header Parameters

Header Parameters	Values
Content-Type	application/json
X-Requested-With	XMLHttpRequest
X-Authorization:	Bearer + Refresh Token Value

### 2.2.3 Response Parameter Details

Field Name	Description	Data Type	Mandatory /Optional	Example
token	The newly generated token will be used in http header to access the authorized API's.	String	M	eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0dXNlcilImF1ZCI6IkFDQ0VTUyIjNjb3BlcyI6IkJETUIOlwiiaXNzIjoiaHR0cDovL3NpeGRIZS5jb20iLCJpYXQiOiE1Njk0OTc3NTgsImV4cCI6MTU3NDI5Nzc1OH0.okOMCxGRFd1qt2OLVFFF4eDJ6aPZpLDhkNLA9STVMt9zH7fiMYaNz0S56_tJSXAtxYYq02PoQyGO4WBS716tCg

## 2.2.4 Sample Request Body

**Note:** This is a Get Method.

## 2.2.5 Sample Response Body

```
{
  "token":
  "eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0dXNiciIsImF1ZCI6IkdQOVUyIiwiaXNzIjoiaHR0cDovL3NpeGRIZS5jb20iLCJpYXQiOiE1Njk0OTc3NTgsImV4cCI6MTU3NDI5Nzc1OH0.okOMCGRFd1qt2OLVFFF4eDJ6aPZpLDhkNLA9STVMt9zH7fiMYaNz0S56_tJSXA txYYq02PoQyG
  O4WBS716tCg"
}
```

## 2.3 Subscription API

### ENDPOINT URL

**Testbed:** POST <https://dtsvc.safaricom.com:8480/api/public/SDP/activate>

**Production 1:** POST <https://dsvc.safaricom.com:9480/api/public/SDP/activate>

**Production 2:** POST <https://dsvc2.safaricom.com:9480/api/public/SDP/activate>

**Note:** The production end point complements each other, and CP is at liberty to use both at the same time or any of them.

### 2.3.1 Request Parameter Details

Field Name	Description	Data Type	Mandatory/Optional	Example
requestId	Unique client TransactionID used for tracking purposes. Ensure it is less than 50 characters	String	M	60141234567890
channel	Operation Channel from where request is Initiated. Note: The channels supported, and the corresponding values will be shared with the initiating systems	String	M	Channel for CP initiated requests=



operation	Indicates the type of the service. Incase of SUBSCRIPTION API it will be "ACTIVATE"	String	M	ACTIVATE
OfferCode	This is allocated by partner or Safaricom on successful service creation from SDP.	String	M	50120155555
MSISDN	<b>Normal Service:</b> The value of this field is mobile number or MDN without country code or '0' in the beginning. <b>Hashed Enabled Service:</b> Encrypted value for plain MSISDN	String	M	<b>Plain:</b> 254720123456  <b>Encrypted:</b> 904586536756
Cpld	Id allocated to partner after successful registration.	String	M	

## 2.3.2 Request Header Parameters

Header Parameters	Values
Content-Type	application/json
X-Requested-With	XMLHttpRequest
X-Authorization:	Bearer + Access Token Value

## 2.3.3 Response Parameter Details

Field Name	Description	Data Type	Mandatory/Optional	Example
requestId	Unique client TransactionID used for tracking purposes.	String	M	60141234567890
responseTimeStamp	TimeStamp format: yyyyMMddHHmmss The value is required during MD5 encryption for password.	String	M	20190925142225
Channel	Operation Channel from where request is Initiated. Note: The channels supported, and the corresponding values will be shared with the initiating systems	String	M	Channel for CP initiated requests=
Operation	Indicates the type of the service opted. Incase of SUBSCRIPTION API it will be "SUBSCRIPTION"	String	M	SUBSCRIPTION

ResponseId	Response TransactionId generated by SDP for tracking purposes.	String	M	50120155555
status	Indicates success or failure.	String	M	1 or 0
statusCode	Errorcode related to status of the status of the transaction. Error code details will be shared.	String	M	
description	Description of the statusCode	String	M	

## 2.3.4 Sample Request Body

```
{
  "requestId": 17,
  "channel": "APIGW",
  "operation": "ACTIVATE",
  "requestParam": {
    "data": [
      {
        "name": "OfferCode",
        "value": "350032100559"
      },
      {
        "name": "Msisdn",
        "value": "795421629"
      },
      {
        "name": "Language",
        "value": "1"
      },
      {
        "name": "Cpld",
        "value": "321"
      }
    ]
  }
}
```

## 2.3.5 Sample Response Body

```
{
  "requestId": "17",
  "responseId": "cp2910183038077087336761",
  "responseTimeStamp": "20191104092806",
  "channel": "SMS",
  "operation": "ACTIVATE",
  "requestParam": {
    "data": [
      {
        "name": "OfferCode",
        "value": "350032100559"
      },
      {
        "name": "Msisdn",
        "value": "795421629"
      },
      {
        "name": "Language",
        "value": "1"
      },
      {
        "name": "Cpld",
        "value": "321"
      }
    ]
  },
  "responseParam": {
    "status": "0",
    "statusCode": "0816",
    "description": "Thank you, your activation of service 5000_Promotional is not processed."
  }
}
```

## 2.4 Subscription De-activation

This API can be triggered by CPs to Deactivate the subscription service.

### ENDPOINT URL:

**Testbed: POST** <https://dtsvc.safaricom.com:8480/api/public/SDP/deactivate>

**Production 1: POST** <https://dsvc.safaricom.com:9480/api/public/SDP/deactivate>

**Production 2: POST** <https://dsvc2.safaricom.com:9480/api/public/SDP/deactivate>

**Note:** The production end point complements each other, and CP is at liberty to use both at the same time or any of them.

### 2.4.1 Request Parameter Details

Field Name	Description	Data Type	Mandatory/Optional	Example
requestId	Unique client TransactionID used for tracking purposes. Ensure it is less than 50 characters	String	M	60141234567890
channel	Operation Channel from where request is Initiated. Note: The channels supported, and the corresponding values will be shared with the initiating systems	String	M	Channel for CP initiated requests=
operation	Indicates the type of the service. In case of deactivation API, it will be "DEACTIVATE"	String	M	DEACTIVATE
OfferCode	This is allocated by partner or Safaricom on successful service creation from SDP.	String	M	50120155555
MSISDN	<b>Normal Service:</b> The value of this field is mobile number or MDN without country code or '0' in the beginning. <b>Hashed Enabled Service:</b> Encrypted value for plain MSISDN	String	M	<b>Plain:</b> 254720123456  <b>Encrypted:</b> 904586536756
CpId	Id allocated to partner after successful registration.	String	M	

## 2.4.2 Request Header Parameters

Header Parameters	Values
Content-Type	application/json
X-Requested-With	XMLHttpRequest
X-Authorization:	Bearer + Access Token Value

## 2.4.3 Request Packet

```
{
  "requestId": 17,
  "channel": "APIGW",
  "operation": "DEACTIVATE",
  "requestParam": {
    "data": [
      {
        "name": "OfferCode",
        "value": "1001"
      },
      {
        "name": "Msisdn",
        "value": "254720123456"
      },
      {
        "name": "Cpld",
        "value": "10"
      }
    ]
  }
}
```

## 2.4.4 ResponseParameter Details

Field Name	Description	Data Type	Mandatory/ Optional	Example
requestId	Unique client TransactionID used for tracking purposes.	String	M	60141234567890
responseTimeStamp	TimeStamp format: yyyyMMddHHmmss The value is required during MD5 encryption for password.	String	M	20190925142225
Channel	Operation Channel from where request is Initiated. Note: The channels supported, and the corresponding values will be shared with the initiating systems	String	M	Channel for CP initiated requests=
Operation	Indicates the type of the service opted. Incase of UNSUBSCRIPTION API it will be "DEACTIVATE"	String	M	DEACTIVATE
ResponseId	Response TransactionId generated by SDP for tracking purposes.	String	M	50120155555
status	Indicates success or failure.	String	M	SUCCESS/FAILURE
statusCode	Errorcode related to status of the status of the transaction. Error code details will be shared.	String	M	
description	Description of the statusCode	String	M	

## 2.4.5 Response Packet

```
{
  "requestId": "17",
  "responseId": "10189519962937756186",
  "responseTimeStamp": "20190924161246",
  "channel": "3",
  "sourceAddress": "224.223.10.27",
  "operation": "DEACTIVATE",
  "requestParam": {
    "data": [
      {
        "name": "OfferCode",
        "value": "1001"
      },
      {
        "name": "Msisdn",
        "value": "716848648"
      },
      {
        "name": "CpId",
        "value": "10"
      }
    ]
  },
  "responseParam": {
    "status": "0",
    "statusCode": "302",
    "description": "Dear subscriber,You have cancelled your subscription to LOCAL CHANNEL Pack. Thank you for using our service."
  }
}
```



## 2.5 SENDSMS

This API will be triggered by CPs to initiate SMS for delivering content. It is used for both subscription and OnDemand services.

### ENDPOINT URL:

**Testbed:** POST <https://dtsvc.safaricom.com:8480/api/public/SDP/sendSMSRequest>

**Production 1:** POST <https://dsvc.safaricom.com:9480/api/public/SDP/sendSMSRequest>

**Production 2:** POST <https://dsvc2.safaricom.com:9480/api/public/SDP/sendSMSRequest>

**Note:** The production end point complements each other, and CP is at liberty to use both at the same time or any of them.

### 2.5.1 Request Parameter Details

Field Name	Description	Data Type	Mandatory/Optional	Example
requestId	Unique client TransactionID used for tracking purposes. It should be less than 50 characters	String	M	60141234567890
channel	Operation Channel from where request is Initiated. Note: The channels supported, and the corresponding values will be shared with the initiating systems	String	M	Channel for CP initiated requests=
operation	Indicates the type of the service. In case of deactivation API, it will be "SendSMS"	String	M	SendSMS
OfferCode	This is allocated by partner or Safaricom on successful service creation from SDP.	String	M	50120155555
MSISDN	<b>Normal Service:</b> The value of this field is mobile number or MDN without country code or '0' in the beginning. <b>Hashed Enabled Service:</b> Encrypted value for plain MSISDN	String	M	<b>Plain:</b> 254720123456 <b>Encrypted:</b> 904586536756
Cpld	Id allocated to partner after successful registration.	String	M	
Linkid	This ID is generated when a user requests for a service in SDP.	String	M	5432198760123

	This parameter is mandatory while delivering content for ondemand services.			
Content	Content of the SMS to be sent to user.	String	M	Hello World,

## 2.5.2 Request Header Parameters

Header Parameters	Values
Content-Type	application/json
X-Requested-With	XMLHttpRequest
X-Authorization:	Bearer + Access Token Value

## 2.5.3 Request Packet

```
{
  "requestId": 17,
  "channel": "APIGW",
  "operation": "SendSMS",
  "requestParam": {
    "data": [
      {
        "name": "LinkId",
        "value": "00010310189519161781865526"
      },
      {
        "name": "Msisdn",
        "value": "254795421629"
      },
      {
        "name": "Content",
        "value": "Thank You for Ondemand Subscription SAFRI TEST TUN Subscption test Send sms"
      },
      {
        "name": "OfferCode",
        "value": "1003"
      },
      {
        "name": "Cpld",
        "value": "10"
      }
    ]
  }
}
```

## 2.5.4 Response Parameter Details

Field Name	Description	Data Type	Mandatory/ Optional	Example
requestId	Unique client TransactionID used for tracking purposes.	String	M	60141234567890
requestTimeStamp	TimeStamp format: yyyyMMddHHmmss	String	M	20190925142225

	The value is required during MD5 encryption for password.			
Channel	Operation Channel from where request is Initiated. Note: The channels supported, and the corresponding values will be shared with the initiating systems	String	M	Channel for CP initiated requests=
Operation	Indicates the type of the service. In case of deactivation API, it will be "UNSUBSCRIPTION"	String	M	SendSMS
OfferCode	This is allocated by partner or Safaricom on successful service creation from SDP.	String	M	50120155555
MSISDN	<b>Normal Service:</b> The value of this field is mobile number or MDN without country code or '0' in the beginning. <b>Hashed Enabled Service:</b> Encrypted value for plain MSISDN	String	M	<b>Plain:</b> 254720123456  <b>Encrypted:</b> 904586536756
CpId	Id allocated to partner after successful registration.	String	M	
Linkid	This ID is generated when a user requests for a service in SDP. This parameter is mandatory while delivering content for ondemand services.	String	M	5432198760123
Content	Content of the SMS to be sent to user.	String	M	Hello World,
status	Indicates success or failure.	String	M	0=SUCCESS 1=FAILURE
statuscode	Errorcode related to status of the status of the transaction. Error code details will be shared.	String	M	
description	Description of the statuscode will be shared along with errorcode.	String	M	

## 2.5.5 Response Packet

```
{
  "requestId": "17",
  "responseId": "10189519182688287792",
  "responseTimeStamp": "20190924155948",
  "channel": "3",
  "sourceAddress": "224.223.10.27",
  "operation": "SendSMS",
  "requestParam": {
    "data": [
      {
        "name": "LinkId",
        "value": "00010310189519161781865526"
      },
      {
        "name": "Msisdn",
        "value": "254795421629"
      },
      {
        "name": "Content",
        "value": "Thank You for Ondemand Subscription SAFRI TEST TUN Subscption test Send sms"
      },
      {
        "name": "OfferCode",
        "value": "1003"
      },
      {
        "name": "Cpld",
        "value": "10"
      }
    ]
  },
  "responseParam": {
    "status": "1",
    "statusCode": "782",
    "description": "Send SMS Failed"
  }
}
```

## 2.6 BulkSMS

Sending bulk message by using REST web-service, message will be sent on given MSISDN from the mentioned OA. Return a sync response if successful. Support multiple request packages in single request. CP will get two notifications in case the first one is successful. The first notification is for validation and the second one is for giving the final delivery status. In case the first notification is not successful e.g. because of wrong user or sender name, the second notification won't be sent on callback URL.

### ENDPOINT URL:

Testbed: POST <https://dtsvc.safaricom.com:8480/api/public/CMS/bulksms>

Production 1: POST <https://dsvc.safaricom.com:9480/api/public/CMS/bulksms>

Production 2: POST <https://dsvc2.safaricom.com:9480/api/public/CMS/bulksms>

**Note:** The production end point complements each other, and CP is at liberty to use both at the same time or any of them.

### 2.6.1 Sample Request

Below is the sample request format for the REST web service:

```
{
  "timeStamp": 15567981561235,
  "dataSet": [{"userName": "cpon28user",
    "channel": "sms",
    "packageId": 4391,
    "oa": "TestSender",
    "hashed": "yes",
    "msisdn": "254758934575,254795421629",
    "message": "hello testing online promo nov 1",
    "uniqueId": "2500688298721",
    "actionResponseURL": "http://72.1.51.93:8485/BulkDLR"}
  ]
}
```

Note: in case you have multiple package id in your account, don't specify the package id in your request. This is to enable sdp automatically pick a package that is valid. The request will therefore look like

```
{
  "timeStamp": 15567981561235,
  "dataSet": [{"userName": "cpon28user",
    "channel": "sms",
    "oa": "TestSender"
    "hashed": "yes",
    "msisdn": "254758934575,254795421629",
    "message": "hello testing online promo nov 1",
    "uniqueId": "2500688298721",
    "actionResponseURL": "http://72.1.51.93:8485/BulkDLR"
  }]
}
```

## 2.6.2 Sample Response

Below is the sample response format for the rest API call

```
{
  "keyword": "Bulk",
  "status": "SUCCESS",
  "statusCode": "SC0000"
}
```

## 2.6.3 Request Parameter Details

Field Name	Description	Data Type	Mandatory/ Optional	Example
Username	Username allocated by the SDP to the partner after successful registration.	String	M	8997980808
Channel	Operation Channel from where request is Initiated. Note: The channels supported, and the corresponding values will be shared with the initiating systems during integration.	String	M	Channel for CP initiated requests=

oa	Originating address assigned to partner after successful registration.	String	M	ACX_123, 567923, SFGHKG.
hashed	MSISDN handling method when the account is set to use only hashed MSISDN	String	Mandatory (if applicable)	yes no
MSISDN	The value of this field is mobile number or MDN without country code or '0' in the beginning.	String	M	721623140/
Message	Content of the SMS to be sent to user.	String	M	Hello world
UniqueId	Unique ID to identify request & same echoed back in response. It is alphanumeric.	String	M	
actionResponseURL	URL of the CP App for receiving status report.	String	O	
packageId	ID of Bulk SMS Package which has the SMS units	String	O	8943

## 2.6.4 MSISDN Handling; Clear and Encrypted MSISDN.

Three CP-level configurations have been implemented on the account to specify the type of MSISDN to be utilized. That is **Clear MSISDN**, **Hashed MSISDN** and **Both**. These configurations also determine the utilization of the hashed parameter and specify whether it is optional or mandatory. The conditions for enabling each configuration are defined below:

### 2.6.4.1 Clear MSISDN

- **Condition:** Enabled.
- **Valid Input:** Only valid plain MSISDNs are accepted.
- **Invalid Input Handling:** Any MSISDN other than a valid plain MSISDN is treated as invalid.
- **Hashed Field:** Not mandatory. If passed, it should have a value of "no"

### 2.6.4.2 Hashed MSISDN

Condition: Enabled.

- **Valid Input:** Only encrypted MSISDNs are accepted.
- **Invalid Input Handling:** Any value other than a valid encrypted MSISDN, including plain MSISDN, is treated as invalid.
- **Hashed Parameter:** Mandatory with a value of "yes."
- **Violation Handling:** Each request with an invalid MSISDN leads to a violation, resulting in temporary blocking from making subsequent requests.



### 2.6.4.3 Both Type.

**Condition:** Enabled.

**Valid Input:**

- Hashed = 'yes': Only valid encrypted MSISDNs should be passed.
- Hashed = 'no': Only valid plain MSISDNs should be passed.
- Hashed not passed: Default to plain MSISDNs.

**Invalid Input Handling:**

- Hashed = 'yes': Any value other than a valid encrypted MSISDN is treated as invalid.
- Hashed = 'no': Any value other than a valid plain MSISDN is treated as invalid.
- Hashed not passed: Only plain MSISDNs are accepted.

Ensure compliance with these rules when constructing requests to guarantee valid processing and prevent violations or temporary blocking.

**Note:** This configuration are enabled or update by Support admin.

## 2.7 CP Notification

### 2.7.1 Request Packet

```
{
  "requestId":"17223344555",
  "requestTimeStamp":"20190916145324",
  "operation":"CP_NOTIFICATION",
  "requestParam":
  {"data":[
    {
      "name":"Msisdn",
      "value":"716848648"
    },
    {
      "name":"OfferCode",
      "value":"1001"
    },
    {"name":"Command",
      "value":"XXX" //Refer Input parameters
    }
  ],
  "additionalData":{[ {
    "name":"",
    "value":""
  }
  ]}
}
```

### 2.7.2 Request Parameter

Request PacketField Name	Description	Data Type	Mandatory/ Optional	Example
NextBillDate	Next billing cycle date will be passed but for deactivation it will Be null Format: yyyyMMddHHmmss This Parameter will be send only when command parameter in the input request as below. <ul style="list-style-type: none"><li>ACTIVATION</li><li>RENEWAL</li></ul>	String	C	20190924142215

BillingId	<p>Billing ID which is reference ID for refund. In case of Deactivation it will be null</p> <p>This Parameter will be send only when command parameter in the input request as below.</p> <ul style="list-style-type: none"> <li>• ACTIVATION</li> <li>• RENEWAL</li> <li>• PAYMENT</li> <li>• CONTENT_CHARGE</li> <li>• REFUND</li> </ul>	String	C	Billing ID which is reference ID for the transaction.
ChargeAmount	<p>Amount debit from Customer Account during Activation, Payment, Content Charging and Renewal. In case of Deactivation it will be zero</p> <p>This Parameter will be send only when command parameter in the input request as below.</p> <ul style="list-style-type: none"> <li>• ACTIVATION</li> <li>• RENEWAL</li> <li>• PAYMENT</li> <li>• CONTENT_CHARGE</li> <li>• REFUND</li> </ul>	String	C	<p>Amount debit from Customer Account during Activation, Payment, Content Charging and Renewal.</p> <p>In case of Deactivation it will be zero</p>
SubscriptionStatus	<p>Subscription status can be</p> <p>A- Active.</p> <p>G- Grace</p> <p>S- Suspend</p> <p>D- Deactivate</p> <p>This Parameter will be send only when command parameter in the input request as below.</p> <ul style="list-style-type: none"> <li>• ACTIVATION</li> <li>• RENEWAL</li> <li>• PAYMENT</li> <li>• CONTENT_CHARGE</li> <li>• REFUND</li> </ul>	String	O	<p>Subscription status can be</p> <ul style="list-style-type: none"> <li>• A- Active.</li> <li>• G- Grace</li> <li>• S- Suspend</li> </ul> <p>D- Deactivate</p>
SubscriberLifeCycle	<p>Subscriber life cycle can be</p> <p>SUB1- Activation.</p>	String	C	Subscriber life cycle can be

	<p>REN1- Renewal Success. REN2- Renewal Grace REN3- Renewal Suspend. UNSUB1- For Deactivation</p> <p>This Parameter will be send only when command parameter in the input request as below.</p> <ul style="list-style-type: none"> <li>• ACTIVATION</li> <li>• RENEWAL</li> <li>• PAYMENT</li> <li>• CONTENT_CHARGE</li> <li>• REFUND</li> </ul>			<ul style="list-style-type: none"> <li>• SUB1- Activation Success, Payment Success, Content Charging Success.</li> <li>• REN1- Renewal Success.</li> <li>• REN2- Renewal Grace</li> <li>• REN3- Renewal Suspend.</li> </ul> <p>UNSUB1- For Deactivation, Payment Failed, Content charging failed</p>
TransactionId	<p>Transaction ID for reference</p> <p>This parameter will be received for all Command except Content Delivery Receipt, Block CP, Interactive Response</p>	String	C	Transaction ID for reference
ClientTransactionID	<p>Client/CP requested ID</p> <p>This parameter will be received for all command expect Interactive Response, Delivery Receipt.</p>	String	O	Client/CP requested ID
Channel	<p>Channel on which request was initiated.</p>	String	O	Channel on which request was initiated.
Reason	<p>Deactivation Reason can be USER_INITIATED SYSTEM_INITIATED</p> <p>This parameter will be received only during Deactivation</p>	String	C	<p>Deactivation Reason can be</p> <ul style="list-style-type: none"> <li>• USER_INITIATED</li> <li>• SYSTEM_INITIATED</li> </ul>
Language	<p>Language of Subscriber</p>	String	O	Language of Subscriber
OfferCode	<p>Service Code</p> <p>This parameter will be received for below command types.</p> <ul style="list-style-type: none"> <li>• ACTIVATION</li> <li>• DEACTIVATION</li> <li>• RENEWAL</li> <li>• PAYMENT</li> <li>• NOTIFY_LINKID</li> </ul>	String	C	Service Code

	<ul style="list-style-type: none"> <li>• CONTENT_CHARGE</li> <li>• REFUND</li> <li>• DELIVER_RECEIPT(Consent)</li> </ul>			
MSISDN	Msisdn of Subscriber	String	M	Msisdn of Subscriber
Command	<p>Below is list of Command types which can be received by CP's and based on Command Type input parameters will be varied.</p> <ul style="list-style-type: none"> <li>• ACTIVATION</li> <li>• DEACTIVATION</li> <li>• RENEWAL</li> <li>• PAYMENT</li> <li>• NOTIFY_LINKID</li> <li>• CONTENT_CHARGE</li> <li>• REFUND</li> <li>• DELIVER_RECEIPT(Consent)</li> <li>• INTERACTIVE_RESPONSE</li> <li>• DELIVER_RECEIPT(Bulk)</li> <li>• CONSENT</li> <li>• CP_BLACKLIST</li> </ul>	String	M	

## 2.7.3 Other CP Notification Examples

Consent: This will notify CP application of what the end user has selected in the ussd prompt.

```
{
  "requestId" : "10185548875490033023",
  "requestTimeStamp" : "20200331222328",
  "requestParam" : {
    "data" : [ {
      "name" : "OfferCode",
      "value" : "001011900448"
    }, {
      "name" : "Language",
      "value" : "1"
    }, {
      "name" : "CpId",
      "value" : "119"
    }, {
      "name" : "Type",
      "value" : "CONSENT"
    }, {
      "name" : "Msisdn",
      "value" : "254748249894"
    } ],
    "additionalData" : [ {
      "name" : "ConsentValue",
      "value" : "<Yes|No>"
    } ]
  },
  "operation" : "CP_NOTIFICATION"
}
```

**INTERACTIVE CP NOTIFICATION:** This is for receiving MO sms from end user for interactive bulk service

```
{
  "requestId":"46735",
  "requestTimeStamp":"2020-01-17 17:17:17",
  "operation":"INTERACTIVE",
  "requestParam":{"
    "data":[
      {
        "name":"Msisdn",
        "value":"254795421629"
      },
      {
        "name":"Command",
        "value":"CP_NOTIFICATION"
      }
    ]
  },
  "additional data":[
    {
      "name":"DA",
      "value":"9004"
    },
    {
      "name":"SMS",
      "value":"HGGJJ"
    }
  ]
}
```

**DEACTIVATION:** This will be sent when subscriber subscribes to an offer.

```
{
  "requestId":"12",
  "requestTimeStamp":"20200110091747",
  "requestParam":{"
    "data":[
      {
        "name":"OfferCode",
        "value":"001006300035"
      },
      {
        "name":"TransactionId",
        "value":"10188826109958294032"
      },
      {
        "name":"ClientTransactionId",
        "value":"12"
      },
      {
        "name":"Language",
        "value":"1"
      },
      {
        "name":"SubscriberLifeCycle",
        "value":"Unsubscription"
      },
      {
        "name":"SubscriptionStatus",
        "value":"D"
      },
      {
        "name":"Channel",
        "value":"10"
      },
      {
        "name":"Reason",
        "value":"USER_INIT_REQUEST"
      },
      {
        "name":"Type",
        "value":"DEACTIVATION"
      },
      {
        "name":"OfferName",
        "value":"9200_Inspiration_ksh1_perday"
      },
      {
        "name":"Msisdn",
        "value":"254728171730"
      }
    ]
  },
  "operation":"CP_NOTIFICATION"
}
```



**DEACTIVATION:** This will be sent when subscriber unsubscribe from an offer.

```
{
  "requestId":"12",
  "requestTimeStamp":"20200110091747",
  "requestParam":{"
    "data":[
      {
        "name":"OfferCode",
        "value":"001006300035"
      },
      {
        "name":"TransactionId",
        "value":"10188826109958294032"
      },
      {
        "name":"ClientTransactionId",
        "value":"12"
      },
      {
        "name":"Language",
        "value":"1"
      },
      {
        "name":"SubscriberLifeCycle",
        "value":"Unsubscription"
      },
      {
        "name":"SubscriptionStatus",
        "value":"D"
      },
      {
        "name":"Channel",
        "value":"10"
      },
      {
        "name":"Reason",
        "value":"USER_INIT_REQUEST"
      },
      {
        "name":"Type",
        "value":"DEACTIVATION"
      },
      {
        "name":"OfferName",
        "value":"9200_Inspiration_ksh1_perday"
      },
      {
        "name":"Msisdn",
        "value":"254728171730"
      }
    ]
  },
  "operation":"CP_NOTIFICATION"
}
```

**LINKID\_NOTIFY:** This will be generated for ondemand services and it is for receiving MO requests from subscribers.

```
{
  "requestId":"39856",
  "requestTimeStamp":"20200205185725",
  "requestParam":{"
    "data":[
      {
        "name":"LinkId",
        "value":"0007311018784515661497991"
      },
      {
        "name":"OfferCode",
        "value":"001007300127"
      },
      {
        "name":"Refernceld",
        "value":"1018784515649514444"
      },
      {
        "name":"ClientTransactionId",
        "value":"39856"
      },
      {
        "name":"Language",
        "value":"1"
      },
      {
        "name":"Channel",
        "value":"1"
      },
      {
        "name":"Type",
        "value":"NOTIFY_LINKID"
      },
      {
        "name":"USER_DATA",
        "value":"DL test"
      },
      {
        "name":"Msisdn",
        "value":"254748250794"
      }
    ]
  },
  "operation":"CP_NOTIFICATION"
}
```

**DELIVERY\_RECEIPT:** This will be generated for send sms request (ondemand and subscription type of services). It specify the delivery status of the send message.

```
{
  "requestId":"10181687073878464681",
  "requestTimeStamp":"20200310112250",
  "requestParam":{"data":[
    {
      "name":"Refund",
      "value":"0"
    },
    {
      "name":"Type",
      "value":"DELIVERY_RECEIPT"
    },
    {
      "name":"Description",
      "value":"DeliveryToTerminal"
    },
    {
      "name":"ClientTransactionId",
      "value":"880630501079943782"
    },
    {
      "name":"Msisdn",
      "value":"254728171730"
    }
  ]
},
  "operation":"CP_NOTIFICATION"
}
```

## RESPONSE FOR CP NOTIFICATIONS

You need to respond to CP any CP Notification with the below payload

```
{
  "requestId":"X12123",
  "responseId":"1018842918781997778",
  "responseTimeStamp":"20190913145826",
  "operation":"CP_NOTIFICATION",
  "responseParam"
  "status":"0",
  "statusCode":"0000",
  "description":"Success"
}
```

## 2.7.4 ERROR CODE -BULK

Below find error code/description for delivery receipt. Some of the errors will be optimized later with specific description and update shared later.

### BULK SMPP ERROR CODE

Error Code	Description
0	DELIVER TO TERMINAL- OK
1	DELIVERY IMPOSSIBLE
5	DELIVERY IMPOSSIBLE
6	ABSENT SUBSCRIBER
11	DELIVERY IMPOSSIBLE
13	DELIVERY IMPOSSIBLE
27	ABSENT SUBSCRIBER
31	DELIVERY IMPOSSIBLE
32	DELIVERY IMPOSSIBLE
34	DELIVERY IMPOSSIBLE
99	DELIVERY IMPOSSIBLE
1001	NETWORK FAILURE

### BULK ERROR CODES

ERROR CODE	ERROR DESCRIPTION	PROCESS
SC0001	USER_ID_MISSING	ASYNC
SC0003	CAMP_ID_MISSING	ASYNC
SC0004	USER_NAME_MISSING	ASYNC
SC0005	PLAN_ID_MISSING	ASYNC
SC0006	INCORRECT_USERNAME	ASYNC
SC0007	USER_BLOCKED	ASYNC
SC0002	CRITICAL_ERROR	ASYNC
SC0008	FAILURE	ASYNC
SC0000	SUCCESS	ASYNC
SC0009	QUOTA_THRESHOLD_REACHED	ASYNC
SC0010	FAILED_DB_INSERTION	ASYNC
SC0011	TOTAL_QUOTA_EXCEED	ASYNC
SC0012	QUOTA_EXPIRED	ASYNC
	SenderName BlackListed	ASYNC
SC0000	SUCCESS	SYNC
SC0007	Validation Failed for Username or Sendername or Package id	SYNC
SC0008	Mendatory Parameter missing	ASYNC

SC0031	Hashed Parameter Missing	SYNC
--------	--------------------------	------

## Subscription/OnDemand Error codes

Operation	ERROR CODE	Description	STATUS	STATUS CODE
SUBSCRIPTION	0	Activation Success	success	0
	148	Promotional Subscription Activation Success	success	0
	327	Subscription Applicable Special Numbers	success	0
	6	Subscription Already Expired	Failure	1
	9	Subscription Already Exists	Failure	1
	10	Offer Expired	Failure	1
	11	Offer Doesn't Exists	Failure	1
	19	Offer is not Active	Failure	1
	41	Subscriber Number Invalid	Failure	1
	123	Consent notification if your are willing to ativate. Please send reply with xx	success	0
	288	Internal Error	Failure	1
	826	Shortcode blacklisted	Failure	1
	827	Freeze time	Failure	1
	102	mandatory_param_missing	Failure	1
UNSUBSCRIPTION	1	Deactivate Subscription Success	success	0
	5	Subscription Doesn't exist	failure	1
	6	subscription already expired	failure	1
	15	Deactivate Subscription Failure	failure	1
	17	subscription already deactivated	failure	1
OnDemand	778	Ondemand Charging success	success	1
	780	Ondemand success	success	0
SENDSMS	781	Request under process	success	0
	849	send sms in progress	success	0
	782	Charging Failure: Insufficient Funds	Failure	1
	858	LinkID Expired	failure	1
	858	LinkId Doesn't exists	failure	1
	288	Internal Error	failure	1
REFUND	310	Refund_Success	success	0
	311	Refund_Failure	Failure	1
	762	refund_not_enabled_for_service	Failure	1
	718	Refund_Internal_error	Failure	1
	719	Refund_Invalid_Transaction_Id	Failure	1
	720	Refund_Invalid_Request	Failure	1
	67	activation_priceplan_not_attached	Failure	1

	297	chargeAmount_not_matching	Failure	1
PAYMENT	805	payment_Charging_success	success	0
	4012	Charging Failure: Insufficient Funds	Failure	1
	804	payment quota exceeded	Failure	1
	828	Subscriber Profile Doesn't exist	Failure	1
CONSENT	121	Consent reply No	Failure	1
	816	consent_user_cancel	Failure	1
	317	Consent sending fail	Failure	1
	293	Consent reply pending	Failure	1
Delivery	SMPP Error Code	Delivered to terminal	success	0
		Delivery Impossible	Failure	1
		MSISDN Is In Invalid State	Failure	1
		Absent Subscriber	Failure	1