



DCB Subscription API Integration Documentation

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1 Service Provider access to Bizao APIs

Bizao gateway gives you access to a large panel of services through REST APIs.

DCB API is one of these services.

Our DCB API is available in two mode:

1. **DCB Onetime API**: which is live in most African countries with Orange and let you bill your Client in onetime. With this API you need to manage the subscription system in your side. (**Note** : This API will be deprecated per MNO where the Subscription API is live in Bizao Store.)
2. **DCB Subscription API**: This API is available right now only in Ivory-Coast for MTN operator. this API will manage the user subscription and user notification in Bizao side. Also it will manage the subscription renewal according to the Service frequency/periodicity. This API is Using ~~the Double-Optin mechanism (based on the USSD PopUp)~~ Implicite mode (HE) to authenticate the user in case of MTN

To get access to this service/API, the Bizao integration team will signUP you on the Hub and create you a dedicated application(credential) for your DCB Subscription-traffic.

By the way Bizao integration team will provide you the required/dedicated Bizao Credentials/IDs below to let you start traffic:

- a. **Access-Token** : the OAuthv2 access token related to your Bizao Account (up to you to manage the renewal of this Token (duration of this Token is one year)
- b. **ServiceID** : your unique ID that Bizao will provide you. No duration limitation on this ID.
- c. **ProductID** : the unique Id per product/content you will launch in Bizao Hub. Bizao will provide you this ID to use on all your DCB traffic query toward Bizao Hub. No duration limitation on this ID
- d. **SP-ID** : your unique ID per country, that Bizao will provide you. No duration limitation on this ID

2 Bizao ACCESS_TOKEN

As for the DCB onetime API, an ACCESS_TOKEN is generated thanks to your CLIENT_ID and CLIENT_SECRET that Bizao will sent you

This Access-Token is required as header for all the DCB subscription API call you will make toward Bizao Hub.

Note:

- You have to manage the renewal of this Access-Token based on this api ["https://api.bizao.com/token"](https://api.bizao.com/token)

Sample of ACCESS_TOKEN:

"4qa1bae4-3f9b-346-9t8b-c0e4d4ef"

For more detail on how to manage/generate this access-token please see detail in URL below :

- <https://dev.bizao.com/docs/getting-started/generate-a-bizao-access-token/>

2.1 Service Provider data provisioning

In signUp step on Bizao Hub for the DCB-Subscription, you need to provide the below information to be provisioned in the Bizao BackEnd.

1. **Product URL:** the URL of the product/Service you Launch on Bizao Hub.
2. **Product Price:** the price of you Content/Product
3. **Periodicity of your product subscription:** indicate if your Product is for a daily, weekly or monthly subscription.
4. **Product Callback URL:** the Callback for the B2B notification related to your Product (you can indicate one Callback per Product or use the same for all Product you will launch on Bizao Hub).
 - **Note:** this Callback must be static and follow the format/template : ["https://<PartnerDNS>/.../xxx<country-code>-<mno-name>.php"](https://<PartnerDNS>/.../xxx<country-code>-<mno-name>.php)
5. **Wording of B2C SMS Notification:** as subscription API will notify the EndUsers after each subscription attempt, Bizao need to agree with the SP the wording to use for each type of notification. Idem for the UnSubscription and renewal SMS-Notification.

3 User Authentication

3.1 Explicite mode (OTP)

With "Challenge" API, Bizao lets you authenticate the end-user using a PIN-CODE. In this mode you will first collect/get the MSISDN from the user. Then push a subscription query to Bizao. Bizao will generate internally an OTP with Challenge API. Bizao will reply you with the status « Subscription Pending » along with the « challenge-id » and « User_id ».

Bizao will send to endUser the OTP. Once User enters the OTP in his phone, you will validate the OTP using validateChallenge API (**describe in section 5**).

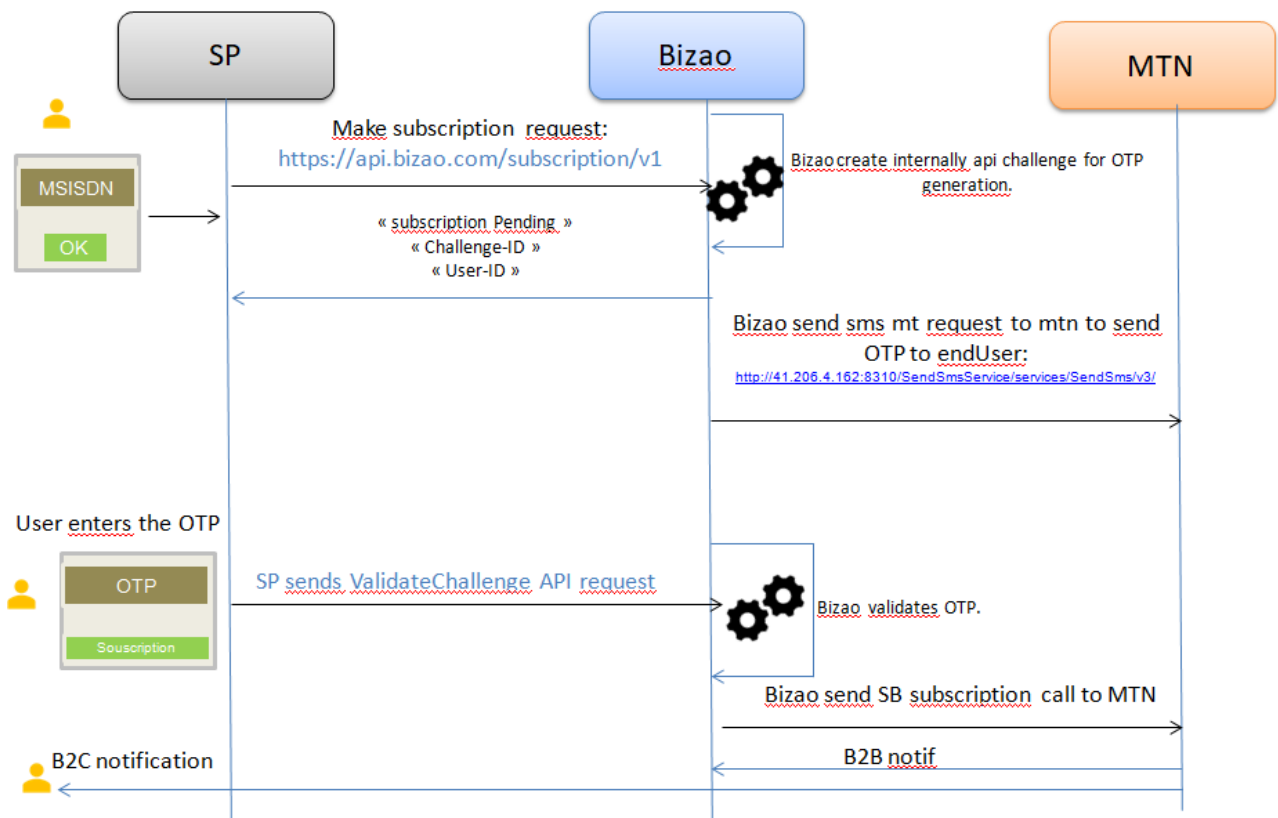
3.1.1 OTP-Flow logic

To manage the OTP flow we will use two API:

- **Generate Challenge(Internal API)** : Once the SP push a subscription query to Bizao, the Hub will generate internally an OTP with the challenge API in order to get the challenge ID based on user's MSISDN.the PIN Code is sent at this stage using MNO SMS MT API.
- **Validate Challenge (expose to you)**: to generate a BIZAO_ALIAS(user's MSISDN) based on the challenge ID you received in previous step. The end-user will then be authenticated. After authentication, bizao will propagate the subscription query to the MNO backend(cf 5. Validate Challenge).

3.1.2 OTP Diagram flow

Below the OTP flow diagram including the subscription and notification steps.



3.2 Implicite mode (HE)

In this mode the SP will get the User MSISDN from the HE flow (Header Enrichment). But first the SP needs to activate this flow in Bizao side/platform, by providing:

1. A dedicated **HE-Callback** URL in format below:
 - **<http://<SP-DNS-Name>/mtn/he/v1>** (only HTTP flow is authorized in MNO side)
2. The IP address of this URL

The MNO will make enrichment on this URL only in **3G traffic** and set the User-MSISDN in the Header below:

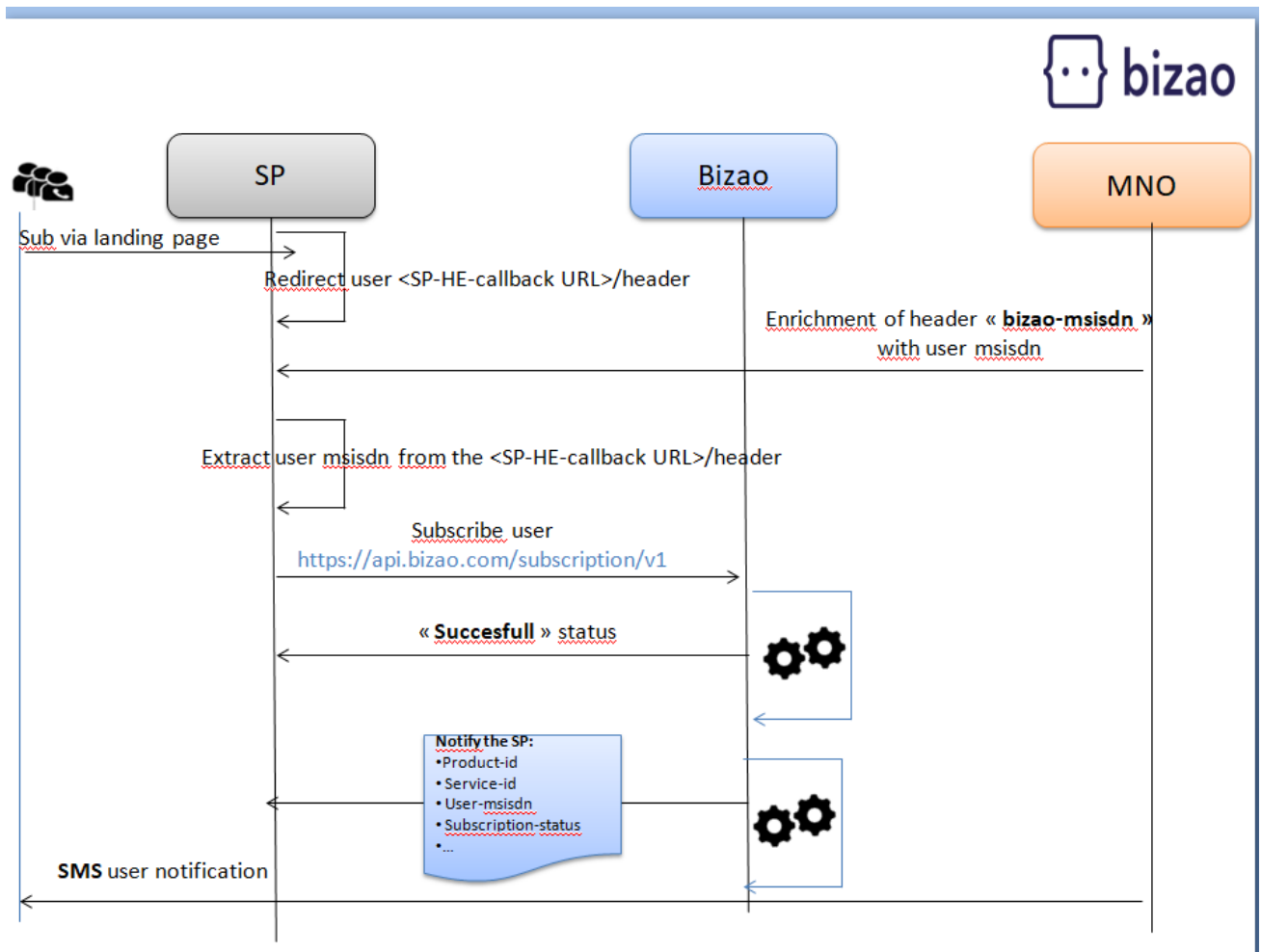
- **<bizao-msisdn>** for MTN CI
- **<x-up-calling-line-id>** for MTN CM

3.2.1 HE-Flow logic

In case of **3G** connection, the SP will redirect each new user to the SP **<HE-Callback>**. MNO will add a header **<bizao-msisdn>**(for MTNCI) or **<x-up-calling-line-id>** (for MTNCM) to this URL for each new redirection and set this header with the User-MSISDN, the SP can collect/extract it accordingly.

3.2.2 HE Diagram flow

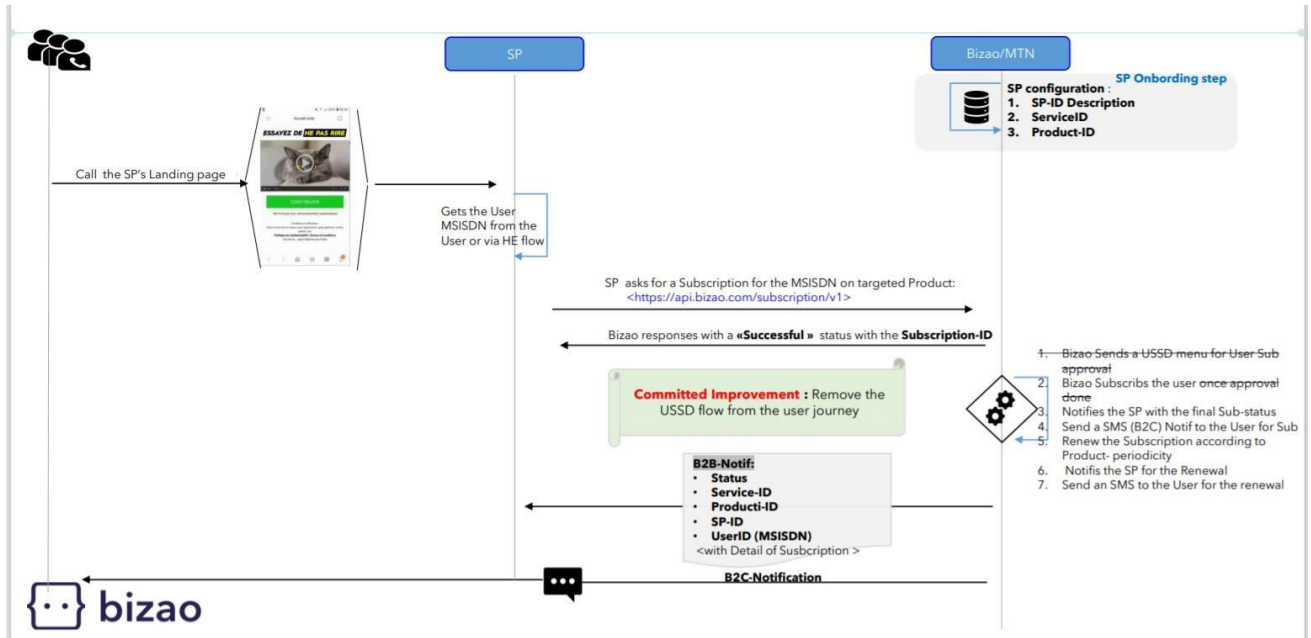
Below the HE flow diagram including the subscription and notification steps.



4 Subscription API

4.1 Principles

The “**subscription**” API will manage the dcb subscription user’s traffic, including the renewal according to each Product/Service periodicity Below the overview of the End2End subscription flow



4.2 Description

Below the endpoint to access to this API (Bizao will provide you the credential/token to access to this API)

- Bizao-URI: [subscription/v1](#)
- Bizao-Host: <https://api.bizao.com>
- Method: **POST**

Note:

- This API use only a Headers, **No body need for this API**
- This API will response with a '**Successful**' status for each new Subscription query in the HE flow. It will be '**Pending**' in the OTP flow
- The final status of User Subscription will be sent to your BackEnd in Notification flow via your CallBack URL.

Below the following **Headers** required in your query:

Header	Description/Content
Authorization	YOUR_ACCESS_TOKEN

mno-name	(string) the name of operator you target example : orange, mtn . Bizao will update you regarding the new mno set in the hub
country-code	(string) 2 characters code of the country you target (use this norme : ISO 3166 alpha 2 country code, url to get the all country-code list : https://www.iban.com/country-codes (for example CI is the country-code for ivory Coast.
product-id	(alphanum) the Id related to your Product (will be provided by Bizao integration team in service Onboarding step)
SP-id	(alphanum) the Id related to you per country (will be provided by Bizao integration team in service Onboarding step)
User-id	The User MSISDN in format number (without '+' , '00') : Example : 22575338226
State	(alphanum) parametre to let put some correlation data Note : this parametre must be in EncodedURL format . Bizao Will sent you back the value of this parametre wihtin the B2B notification
Auth-type	Will contains « HE » or « OTP » ; by default value is « HE »

Subscription query sample:

```

POST /subscription/v1 HTTP/1.1
Host: api.bizao.com
Authorization: Bearer cb400427-1e56-3we2-b11b-1ff651d7M34e
country-code: ci
mno-name: mtn
sp-id: 2250110010769
product-id: 22501220000029439
user-id: 2256691xxxx
Content-Type: application/x-www-form-urlencoded
Cache-Control: no-cache
state: param1%3Dvalue1%26param2%3Dvalue2 // in encoding URL format
auth-type: zzzzzzz' // Authentication mode use by endUser

```

Successful real time query response sample for HE flow

```

{
  "subscription-id": "1e851c11-de54-4366-8b6e-6028002edd92", //
  "subscription-status": "Successful"
}

```

- **subscription-id**: the unique id of the subscription handled on Bizao BackEnd
- **subscription-status**: the status of your User subscription query

response sample for OTP flow.

```
{
  "user-id": "23768xxxxxx",
  "subscription-status": "Pending",
  "state": "param1%3Dvalue1%26param2%3Dvalue2kjlasdlkfjsdfsdffasdfsdf",
  "challenge-id": "e0029f04-6ecd-4af5-b7c5-b2c4e89c7e9b"
}
```

- **user-id:** the user msisdn who subscribe to product.
- **subscription-status:** the status of your User subscription query
- **Challenge-id :** id of challenge generated by bizao hub for the OTP.
- **State :** parametre to let put some correlation data

5 Validate Challenge API

To validate Challenge you will use:

- Bizao-URI: </challenge/v2/challenges/challenge ID>
- Bizao-Host: api.bizao.com

Note : You will use challenge-id generated in response to Subscription API.
Below headers of the request:

Header	Description/Content
Content-Type	application/json
Authorization	YOUR_ACCESS_TOKEN
Country-code	(string) 2 characters code of the country you target (use this norme : ISO 3166 alpha 2 country code, url to get the all country-code list : https://www.iban.com/country-code
Mno-name	(string) the name of operator you targetexample : orange, mtn.
Sp-id	ID related to the SP.
Product-id	ID related to the product of the SP.

The body of the query will contain the parameters below into a "challenge" object (JSON):

Parameter	Usage	Description
method	Mandatory	Always: OTP-SMS-AUTH

inputs	Mandatory	<p>JSON array of {key,value} entries containing all the necessary inputs to perform the challenge:</p> <ul style="list-style-type: none"> - MSISDN : end-user MSISDN - confirmationCode: the OTP received by the end-user - info: always "msisdn" as value
--------	-----------	---

Sample request:

```

curl -i -X POST \
https://api.bizao.com/challenge/v1/challenges/5bc5f37f7370537a0fb9f0fc \
-H 'authorization: Bearer YOUR_ACCESS_TOKEN' \
-H 'cache-control: no-cache' \
-H 'content-type: application/json' \
-H 'country-code: cm' \
-H 'mno-name: mtn' \
-H 'sp-id: 237XXXXXXXXXX' \
-H 'product-id: 237XXXXXXXXXX' \
-d '
{
  "challenge": {
    "method": "OTP-SMS-AUTH",
    "inputs": [{
      "type": "MSISDN",
      "value": "+22500000000"
    },
    {
      "type": "confirmationCode",
      "value": "9683"
    },
    {
      "type": "info",
      "value": "msisdn"
    }
  ]
}
'
```

Success validate challenge response

```

{
  "subscription-id": "80244c30-05be-48bf-9b06-bedbcfd526e3",
  "subscription-status": "Successful",
  "user-id": "237680975147",
  "sp-id": "2370110012321",
  "product-id": "23701220000029108",
  "periodicity": "1 day",
  "amount-charged": "150.00000",
  "country-code": "cm",
  "currency": "XOF",
  "Sub-startdate": "2021-01-19 11:17:07.0",
  "mno-name": "mtn",
  "state": "param1%3Dvalue1%26param2%3Dvalue2kjlasdlkfjsdfsdfasdfsdf"
}

```

6 UnSubscription API

6.1 Principles

With MTN CM there is two way to UnSubscrib the User :

- **Unsubscription via Bizao ShortCode** : Bizao propose this SC **8721** that users can use with the right Keyword to UnSubscrib to the Product via SMS : **"STOP <Keyword>"** (where Keyword is the one committed with Bizao for targeted Product)
- **Unsubscription via Bizao API**: Bizao propose also an API to let the SP UnSubscribs the User. see description in below paragraph below.

6.2 Description

To UnSubscrib the user via API you can use the same subscription API but in format/syntax below.

You keep the same Header used for the Subscription API

- Bizao-URI: [subscription/v1](#)
- Bizao-Host: <https://api.bizao.com>
- Syntax: (**DELETE**) [subscription/v1/{subscriptionID}](#) (see required headers below)

This API use only a Headers, **No body need for this API**

Below the following **Headers** required in your query:

Header	Description/Content
Authorization	YOUR_ACCESS_TOKEN

mno-name	(string) the name of operator you target example : orange, mtn . Bizao will update you regarding the new mno set in the hub
country-code	(string) 2 characters code of the country you target (use this norme : ISO 3166 alpha 2 country code, url to get the all country-code list : https://www.iban.com/country-codes (for example CM is the country-code for ivory Coast.
state	(alphanum) parametre to let put some correlation data Note : this parametre must be in EncodedURL format . Bizao Will sent you back the value of this parametre wihtin the B2B notification

Unsubscription query sample:

```
DELETE /subscription/v1/0d658cdd-caaa-40d2-a082-fe112f81aa71 HTTP/1.1
Host: api.bizao.com
Authorization: Bearer cb4sd2427-1eax-3be2-b1xw-145sdç3zr
country-code: cm
mno-name: mtn
```

```
Content-Type: application/x-www-form-urlencoded
state: xxx //en URL encoding format
Cache-Control: no-cache
```

Successful real time response sample (the http response code is 200)

```
{
  "UnSubscription-id": "55564763-6425-441d-95ef-34a36971df5c",
  "Unsubscription-status": "Successful"
}
```


7 Notification flow

7.1 Subscription notification

Two kind of notification are made by the subscription API:

- **B2C-Notification:** For each successful subscription, the endUser will receive an SMS with a message (*the wording of this msg to be committed with Bizao in Onboarding steps*) to inform him that his subscription is successful.
 - The SMS-Notif are sent by SP or
 - SMS-Notif can be sent by the MNO(MTN)

The SP to send the SMS MT need to integrate below SMS MT API . To notify the end_user, youfirst need to Subscribe him succesfully using Subscription API above.

Description SMS MT API:

To notify your end-user by SMS you will use:

- Bizao-URI: [smsmessaging/v1/outbound/tel%3A%2B767/requests](https://api.bizao.com/smsmessaging/v1/outbound/tel%3A%2B767/requests)
- Bizao-Host: api.bizao.com

The query will contain the Headers set to the specified value below

Header	Description/Content
Country-code	Will be the country-code you are targeting
Mno-name	Will contain the name of the mno.
bizao-alias	Will be the MSISDN of endUser you want to notify.
Service-id	(alphanum) the Id related to your service (will be provided by Bizao integration team in service Onboarding step)
Sp-id	(alphanum) the Id related to you per country (will be provided by Bizao integration team in service Onboarding step)
Authorization	YOUR_ACCESS_TOKEN

The body of your query will contain the parameters below:

Parameter	Description	Usage
address	Recipient user ID is a key in the header which contains the end user alias to use. Authorized values are: <ul style="list-style-type: none"> ○ Tel:userMSISDN 	Mandatory, unique
message	String, must be URL-escaped as per RFC 1738 and not longer than 160 characters.	Mandatory
senderAddress (*)	String, see Recap of API-SMS parameter for values	Mandatory
SenderName	Firendly name displayed on end user device (size should not exceed 11 characters)	Mandatory
clientCorrelator	String, Uniquely identifies this created SMS request. This will be useful in communication String, failures while sending the request. By using the same clientCorrelator when retrying the request WSO2.TELCO HUB avoids sending the same SMS again.	Mandatory

SMS Notification query sample:

```
curl --location --request POST
'https://api.bizao.com/smsmessaging/v1/outbound/tel%3A%2B767/requests' \
--header 'authorization: Bearer YOUR_ACCESS_TOKEN ' \
--header 'cache-control: no-cache' \
--header 'content-type: application/json' \
--header 'bizao-alias: USER_MSISDN' \
--header 'country-code: cm' \
--header 'mno-name: mtn' \
--header 'sp-id: 2370110010769' \
--header 'service-Id: YOUR_SERVICE_ID' \
--header 'Cookie: SERVERID=s0; SERVERID=s1' \
--data-raw '{
  "outboundSMSMessageRequest": {
    "address": [
      "tel: USER_MSISDN"
    ],
    "senderAddress": "tel:+2370000",
    "outboundSMSTextMessage": {
      "message": " Welcome SMS "
    },
    "clientCorrelator": " MyCorrealtorID",
    "senderName": " NameToDisplay "
  }
}
```

Note : for each new SMS-Query you have to provide a new "clientCorrelator" value

SMS Notification successful response

```
{
  "outboundSMSMessageRequest": {
    "address": [
      "tel:23766913540"
    ],
    "senderAddress": "tel:+2370000",
    "senderName": "8721",
    "outboundSMSTextMessage": {
      "outboundSMSTextMessage": {
        "message": "Welcome Message from BIZAO to MTNCM FOR TEST."
      }
    },
    "clientCorrelator": "MyCorrealtorID-17JAN",
    "resourceURL": "https://gateway1a.mife.sla-
mobile.com.my:8243/smsmessaging/outbound/tel%3A%2B767/requests/1610907111565SM36601371090/delivery
Infos"
  }
}
```

Recap of API-SMS parameter value by authorized country

Below a recap of specific API-SMS parameter value by authorized country

Country	MCO	senderAddress
Cameroun	MTN	tel:+2370000
Ivory-Coast	MTN	Tel :+2250000

- **B2B-Notification:** The Bizao BackEnd will also notify the SP's BackEnd via the SP's Callback URL. See notification sample below:

```
{
  "meta": {
    "type": "subscription-notif",
    "source": "mtn"
  },
  "subscription-id": "b2b553ca-405f-4765-8113-ab7eff180943",
  "subscription-status": "Successful",
  "user-id": "2376636xxxx",
  "sp-id": "2370110010769",
  "product-id": "23701220000029439",
  "service-id": "237012000025033",
  "periodicity": "daily",
  "amount-charged": "1",
  "currency": "XOF",
  "Sub-startdate": "2020-04-02 12:19:59.000",
  "country-code": "cm",
}
```

Within this subscription-notification you will have the fields:

The meta data will let you know:

- The **type** of notification according to each flow: <subscription>, <unsubscription> or <renewal>
- The <MNO> **source** of this notification

The body will provide the fields :

- "**subscription-id**" : the same ID as Bizao sent you on the real time response for the subscription query "235efa19-a645-4195-8597-4c48a15482df",
- "**subscription-status**": the final status of the ongoing subscription. "**Successful**" or "**Failure**"
- **user-id**: the MSISDN of the user who made a subscription
- **product-id**: the Product ID you target (sample "22501220000029439"),
- **service-id**: your Service ID you got from Bizao (its unique per SP"),

- **sp-id** : the SP-Id provided in the incoming query
- **periodicity**: The periodicity of the subscription if it's daily, weekly or monthly (Sample "86400" for daily) ,
- **amount-charged**: the real amount charged for the user (sample "100",
- **currency**: the currency used (sample : "XOF"),
- **Sub-startdate** : the real subscription date (sample : "2019-11-28 15:31:07.000"),
- **country-code**: the country you target for this subscription (sample "ci" for Ivory Coast) ,
- **state**: the correlation data you sent in the subscription query,

7.2 Renewal notification

Idem as for Subscription flow, Bizao manage two type of notification for the renewal flow:

- **B2C-Notification**: For each successful subscription, the endUser will receive an SMS with a message (*the wording of this msg to be committed with Bizao in Onboarding steps*) to inform him that his subscription is successful.
 - The SMS-Notif are sent by SP or
 - SMS-Notif can be sent by the MNO(MTN)

The SP to send the SMS MT for renewal need to integrate SMS MT API described in section (6.1 **Subscription notification**) . To notify the end_user, you first need to Subscribe him successfully using Subscription API above.

- **B2B-Notification**: The Bizao BackEnd will also notify the SP's BackEnd via the SP's CallBack URL. See notification sample below:

```
{
  "meta":
  {
    "type": "renewal-notif",
    "source": "mtn"
  },
  "Subscription-id": "41e8fde7-d7e4-4967-b078-d3f17c193030",
  "renewal-id": "240000304702003290501020011005",
  "renewal-timestamp": "2020-03-29 06:01:23.000",
  "renewal-status": "Successful",
  "user-id": "2378576xxxx",
  "product-id": "23701220000029439",
  "service-id": "237012000025033",
  "amount-charged": "1",
  "currency": "XOF",
  "country-code": "cm"
}
```

Within this renewal-notification you will have the fields:

The meta data will let you know:

- The **type** of notification according to each flow: <subscription>, <unsubscription> or <renewal>
- The <MNO> **source** of this notification

The body with provide the fields:
Notification Body with fields below:

- **"Subscription-id"**: the same ID as Bizao sent you on the real time response for the subscription query "0d658cdd-caaa-40d2-a082-fe112f81aa71",
- **"renewal-id"**: the id of the renewal transaction,
- **"renewal-timestamp"**: Timestamp of the renewal stransaction
- **"renewal-status"**: the final status of this renewal transaction (sample : "Completed"),
- **"user-id"**: the MSISDN of the User,
- **"product-id"**: The Product Id of the involved for this renewal,
- **"service-id"**: your Service ID you got from Bizao (its unique per SP"),
- **"amount-charged"**: The final amount charged,
- **"currency"**: The currency,
- **"country-code"**: the country code

7.3 UnSubscription notification

Bizao will also notify the SP's backend for each successful UnSubscription made per user. Bizao will use a dedicated meta-data for this notification

The meta data will let you know:

- The **type** of notification according to each flow: <subscription>, <unsubscription> or <renewal>
- The <MNO> **source** of this notification

Notification Body with fields below: <you can correlate with MSISDN & Product-ID>

- **UnSubscription-id**: a unique ID per unsubscription (sample : "55561763-6425-441x-95ef-34a36971df5c",
- **Unsubscription-status**: the status of the Unsubscription query (sample : "Completed"),
- **Subscription-id**: a reminder of the Subscription-ID you are UnSubscribing (sample : "44561763-2225-441x-933f-34a3690965c",
- **Unsubscription-timestamp**: the real time of Unsubscription commitment (sample : "2019-11-28 15:27:08.000"),
- **user-id**: the MSISDN of the user unsubscribed
- **product-id**: the Product ID you target (sample "22501220000029439"),
- **service-id**: your Service ID you got from Bizao (its unique per SP"),
- **country-code**: the country you target for this unsubscription (sample "ci" for Ivory Coast)
- **state**: the correlation data you sent in the subscription query,

Sample of the full notification:

```
{
  "meta": {
    "type": "unsubscription-notif",
    "source": "mtn"
  },
  "UnSubscription-id": "55564763-6425-441d-95ef-34a36971df5c",
  "Unsubscription-status": "Completed",
  "Subscription-id": "41e8fde7-d7e4-4967-b078-d3f17c193030",
  "Unsubscription-timestamp": "2019-11-28 15:27:08.000",
  "user-id": "2377533xxx",
```

```
"service-id":"237012000025033",  
"product-id": "23701220000029439",  
"country-code": "cm",  
"state": "xxx"  
}
```

8 Available Country and Operator

Below the list of country and MNO where the subscription is available service is available for Bizao

Within this table you will find the required code for country and operator to use in the mobile-money query call

	Operator (mno-name)	Country (country-code)	currency
Ivory Coast	Mtn	ci	XOF
Cameroun	Mtn	cm	XAF

9. Data provisioning per partner

For each new partner we manage some provisioning data that we need to collect in the onboarding step.

Below a list of main information, we collect:

- **Country**: the partner will precise on which country he wants to be onboarded
- **Mno**: the partner will precise on which Operator/MNO he wants to be onboarded
- **Product-id**: Bizao will provide this ID to the Partner
- **Service-id**: Bizao will provide this ID to the Partner
- **Service-name** (OnbehaleOf): the partner will precise the name of his service
- **Service-Pricing**: the partner will precise the pricing of his service
- **Service-periodicity**: the partner will precise the periodicity of his service if its (daily, weekly,...)
- **Service-description**: the partner will give a short description of his service(this wording will be set in Bizao side just for information)
- **Sms-notif-wording**:
 - **SMS-Sub-Wording**: the partner will provide the wording he wants as content of SMS that will be sent to the EndUser once Subscription processed by the BackEnd
 - **SMS-UnSub-Wording**: the partner will provide the wording he wants as content of SMS that will be sent to the EndUser once UnSubscription processed by the Backend
 - **SMS-Renewal-Wording**: the partner will provide the wording he wants as content of SMS that will be sent to the EndUser once the renewal processed by the Backend
- **ShortCode**: Bizao will provide this Short code to the Partner to use by endUser for UnSubscription usecase using a dedicated Keyword
- **MO-STOP-Keyword**: the partner will provide the "keyword" he wants for UnSubscription via Bizao ShortCode : SMS-MO "STOP Keyword" to the ShortCode
- **Smartcharging**: the partner will precise if he wants that Bizao activates the Smartcharging or not
- **SP-Callback-URL**: the partner will provide an URL where Bizao can Notify his backEnd (B2B-Notification). The URL will follow the format : "[https // <PartnerDNS> /.../xxx<country-code>-<mno-name>.php](https://<PartnerDNS>/.../xxx<country-code>-<mno-name>.php)"

10. DCB-Subscription API error code

10.1. Error format

In case of error syntax or backend error on the subscription query, Bizao will sent you a error message in format below:

(http code: 400 in case of syntax error & 403 or 500 in case of backEnd error)

```
{
  "requestError": {
    "serviceException": {
      "messageId": "xxxxxx", // Id of error message
      "text": "xxxx text message xxxx", // Wording of error
      "variables": "xxxxxx text message xxxxx : list of parameter involved xxx" // List of
parameter involved in this error
    }
  }
}
```

Below a Sample of error response:

```
{
  "requestError": {
    "serviceException": {
      "messageId": "SVC0004",
      "text": "No valid addresses provided in message part %1",
      "variables": "No valid operator endpoint for request headers. Invalid parameter
for country-code or mno-name or sp-id or product-id"
    }
  }
}
```

10.2. Table of API error code

Error code	Description/Message	HTTP code
SVC0001	text : "A service error occurred. Error code is %1" variables: no operator - No valid operator service for the subscription request Invalid operator service - No valid operator service for the subscription status request.	400
SVC0002	text: "Invalid input value for message part %1" variables: No subscription plan exists (provisioning data not exists) - Invalid request headers or subscription details not found.	400

SVC0004	text: "No valid addresses provided in message part %1" variables: invalid subscription id - Invalid subscription id in the request url operator end point not found - No valid operator endpoint for request headers. Invalid parameter for country-code or mno-name or sp-id or product-id	400
SVC0206	text: "Mandatory input item missing from request part %1" variables: invalid sp-id - Missing the header sp-id invalid product id - Missing the header product-id invalid user id - Missing the header user-id invalid state parameter - Missing the header state	400
SVC0270	text: API request failed. The subscription/unsubscription was not applied	500
any messageid not starting with SVC i.e 00000001	Please refer BackEnd error codes and list below	500

10.3. Table of Backend error code

Error code	Description
10000000~10009999	An internal error occurs in the SDP.
22007007	The message ID is incorrect. A message ID must contain 1 to 40 bytes.
22007008	The user does not exist.
22007014	The user ID is invalid.
22007001	Incorrect parameter.
22007034	The user ID is invalid.
22007038	The user has no permission to subscribe to this product because the product is a gift product.
22007044	Notification of subscription relationships fails.
22007053	Configuration of this user is not found in the SDP system.
22007201	The product is not allowed to subscribe because of conflict.
22007203	The product does not exist.
22007206	The product is not in the validity period. The product may have expired or have not taken effect.
22007208	On-demand products cannot be subscribed to.
22007210	The user status is abnormal, that is, it is not defined in the system.
22007211	The user has been deregistered.
22007212	The subscription expiration time is earlier than the current system time.
22007215	Invalid payment mode.

22007220	The notification fails to be sent to the partner.
22007225	The user's bonus points is insufficient for the subscription.
22007227	The product does not support bonus point payment.
22007230	The product cannot be subscribed to by a partner.
22007233	Waiting for subscriber confirm.
22007238	The subscription relationship already exists. The product cannot be subscribed to again.
22007268	The user's credibility is insufficient and the user cannot subscribe to the product.
22007269	The user cannot subscribe to the product due to insufficient credit bill cycle limit.
22007270	The subscription fails because the promotion period has expired.
22007271	Information for rating is insufficient.
22007272	Charging failed because the required application is not supported.
22007278	No IMEI is contained (in the situation where the product attribute is that a subscription relationship is bound to an IMEI).
22007279	Incorrect account status.
22007281	The GPRS service is locked and cannot be subscribed to temporarily.
22007283	To IN charging fail.
22007284	The product has been hidden.
22007286	The product's subscription capability is suspended.
22007301	The user is suspended.
22007303	The user is paused.
22007304	The user's subscription capability is suspended and the user cannot subscribe to the product.
22007306	The user is blacklisted and cannot subscribe to the product.
22007322	The promotional product fails to be subscribed to in the non-promotion period.
22007330	The account balance is insufficient.
22007331	The charged number is incorrect.
22007332	The external system charging times out.
22007333	Other errors occur during charging in the SDP.
22007334	The user information response from an external system times out.
22007336	Subscription relationships fail to be synchronized to the partner.
22007337	The subscriber cannot subscribe to the product due to insufficient periodic credit times.
22007338	The subscribed product has dependent products and cannot be subscribed to.
22007363	The users graylisted and cannot subscribe to the product.
22007365	The user's in chargingBlock status and the user cannot subscribe to the product
22007505	The channel is invalid. The value range of ChannelID in the request is invalid.
22007629	The user is locked.
22007630	If the user has not subscribed to a specified channel's PPV feature or a bundle that the PPV feature belongs to, the user is not allowed to

	subscribe to program products or program feature products of the channel.
22007650	Content key values are not specified.
22007652	The number of products that are subscribed to or unsubscribed from in batches exceeds the maximum.
22007657	The user is a corporate user and cannot subscribe to the product.
22007658	Subscription failed due to LinkID failure.
22007659	The temporary subscription relationship to be confirmed does not exist.
22007660	The temporary subscription relationship to be confirmed has expired.
22007663	The coupon cannot be applied to the product or pricing object.
22007664	The coupon has been used.
22007665	The number of times that the user uses the coupon exceeds the maximum.
22007669	The user is unauthorized, or the user is not allowed to use the service.
22007670	The user account is in a blocked state.
22007671	The account has expired.
22007672	An unknown account.
22007675	The voucher used by the user does not match the value of operatorID for the user.
22007683	The old product or renewed product is supporting Non-Renewal Charging.
22007696	Duplicated authorization request.
22007701	the prepaid account of the account does not exist.
22007801	Token Incorrect
22007802	Token frequency is high
22007804	Token Expired
22007805	Un-successful attempts over
22007806	Service is not valid
22007807	IN system partner authentication failed.
22007808	The IN system regards it as a duplicate request.
22007819	Cannot request the third-party system to perform a specified operation due to configuration error.
22007823	Subscription on the third-party BOSS succeeded and Subscription on the MDSP failed.
22007825	The subscription fails because the remaining validity time of the product is less than one period.
22007939	User's operatorID does not match with the product's operatorID.
22007993	Failed to invoke the interface of the SIS, IP is not in whiteIPList.
22007999	Failure due to other causes.
22008014	The SDP fails to perform fee deduction.
22999998	The service returned by the external charging system is unavailable.
22999999	External system error.
40000001	User Consent Required
40000002	Privacy verification failed
22007011	product's status is abnormal

22007900	Service is hidden.
22007920	User is opt out.
22007921	Pending on bill payer.