UrubutoPay

PAYMENT GATEWAY

Web Service API for 3rd party integration

0. Documentation

Date	Modification	Comment
09.10.2023	Adding transaction status check API	Version: 15

1. **Abbreviation**

PYMT GTWY API: Payment Gateway Application Programming Interface
BKTH: BK TecHouse

2. **Architecture**

The following services will be used to facilitate the integration process with the third-party interface:

ITEM	SERVICE	DESCRIPTION
(1)	Authentication service inquiry	API to be provided by your system and used to claim for a valid **Bearer token**. ● The token should last for **24 hours**
(2)	Payer validation inquiry	API to be provided by your system and used to validate the given payer code/bill number and returns all related information
(3)	Successful Payment notification inquiry	API to be provided by your system and used to receive a new **successful** payment notification and returns successful or failure response
(4)	Canceled Payment notification inquiry	API to be provided by your system and used to receive a new **canceled** payment notification and returns successful or failure response
(5)	Call back Payment notification inquiry	**Note: E-Commerce only** API to be provided by your system and used to immediately call back after payment is initiated.

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3.   Authentication Services

Method:

POST http(s)://your-ip-or-domain-name/authentication-api-service-path

Request headers:

Content-type: application/json

Parameters

NAME	TYPE	DESCRIPTION
user_name	STRING	This is the given username to be used
password	STRING	This is the given password to be used

Request:
```
{
   "user_name": "bkTechPymtGtwy",
   "password": "myPss@2020"
}
```

Response:
```
{
 "timestamp": "2021-09-20 06:15:38",
 "message": "Successful",
 "status": 200,
 "data": {
  "token": "Bearer_YourToken"
 }
}
```

(*****) Notice: All parameters are mandatory.

Error:

```
{
 "timestamp": "2021-09-22 23:55:05",
 "message": "Invalid credentials",
 "status": 401
}
```

Expected API response and Error codes

Result Code	HTTP Response code	Description
200	**200**	Authentication is successfully
400	**400**	Missing required parameters
401	**401**	Wrong Authentications
404	**404**	No data found for the given credentials

4. Payer validation Inquiry

Method:
POST http(s)://your-ip-or-domain-name/validation-api-service-path

Request headers:
Content-type: application/json
Authorization: 'Bearer API_Token'

(*) API_Token :
It is a returned TOKEN of type bearer that your 3rd party system will provide to us

Parameters

NAME	TYPE	DESCRIPTION
merchant_code	STRING	This is the merchant reference number from our payment gateway
payer_code	STRING	This is the payer reference number or bill number

Request:
```
{
  "merchant_code" : "TH25369401",
  "payer_code" : "UG253694"
}
```

Response:
```
{
 "timestamp": "2021-09-20 06:15:38",
 "message": "Successful",
 "status": 200,
 "data" : {
  "merchant_code" : "TH25369401",
  "payer_code" : "UG253694",
  "payer_names" : "Mugire Charles",
  "department_code" : "12",
  "department_name" : "Computer Science",
  "class_name" : "Class of 2023",
  "service_group_code" : "146",
  "service_group_name" : "CST",
  "amount" : 150000,
  "currency" :  "RWF/USD",
  "payer_must_pay_total_amount" : "YES/NO",
  "comment" : "fees payment"
  "services": [
   {
    "service_id": 1,
    "service_code": "tuition-fees",
    "service_name": "School fees",
    "account_number": "000500025695727",
    "amount": 100000
   },
```

```
    {
     "service_id": 3,
     "service_code": "trans-fees",
     "service_name": "Transcript fees",
     "account_number": "000500025695727",
     "amount": 0
    }

  }
}
```

(*****) Notice:
- o   parameters in <mark>yellow</mark> are mandatory to a value and the rest can be empty.
- o   If the response of "payer_must_pay_total_amount" is NO, it means the payer can pay any amount s/he wants
- o   If the response of "payer_must_pay_total_amount" is YES, you should consider the total amount returned in each service and make sure s/he pays the full amount

Error:

```
{
 "timestamp": "2021-09-22 23:55:05",
 "message": "No data found for this code: UG253240",
 "status": 404
}
```

5. Initiate new payment from your e-commerce (3rd party system)

Method:
POST https://staging.urubutopay.rw/api/v2/payment/initiate

Request headers:
Content-type: application/json
Authorization: 'Bearer API_Token'

(*) API_Token : It is a TOKEN of type bearer provided by BK Techouse

Parameters

NAME	TYPE	DESCRIPTION
merchant_code	STRING	This is the merchant reference number from our payment gateway
payer_code	STRING	Payer reference number or bill number
service_code	STRING	This is the external service code/id representing the service to be paid for
amount	DOUBLE	Total paid amount
channel_name	STRING	Payment channel name used by the payer: **MOMO, AIRTEL_MONEY, CARD**

card_type_to_be_used	STRING	Payment channel is Card, must specify the Card Type to be used by the payer: **BK_ARENA_PREPAID_CARD, NOT_APPLICABLE**
phone_number	STRING	The wallet phone number to be used when initiating the transaction and is Mandatory for wallet payment
redirection_url	STRING	This is the URL to redirect to after processing the payment
payer_names	STRING	Payer's name
payer_email	STRING	Payer's email

Request:

```
{
  "merchant_code": "TH35409959",
  "payer_code": "738743",
  "service_code": "purchase",
  "amount": 130,
  "channel_name": "MOMO",
  "card_type_to_be_used": "NOT_APPLICABLE",
  "phone_number": "0788215324",
  "redirection_url": "https://linkx.rw"
}
```

Response_1: For Wallets

```
{
  "timestamp" : "2022-02-21 11:26:05",
  "message" : "Thank you for initiating a new Payment. Check your pending transactions on *182*7*1# to confirm.",
  "status" : 200
}
```

Response_2: For card

```
{
  "timestamp" : "2022-05-05 12:01:58",
  "message" : "Thank you for initiating a new Payment. Continue to process Card Payment",
  "card_processing_url" : "https://bktech-base-url/open-public-card-process/11202589/0021f39?rdurl=https://linkx..rw",
  "url_validity" : "30 min",
  "status" : 200
}
```

The returned URL will redirect you to an html page that looks as follow

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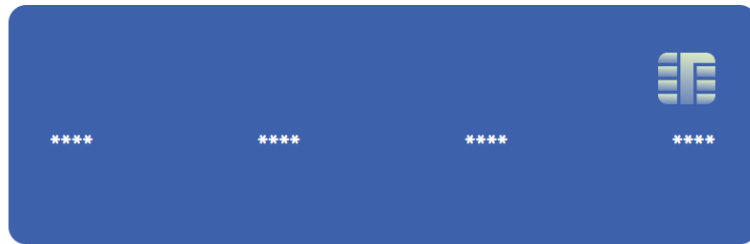‹ **Pay With Card**

Merchant Details

F

ABC Ltd

MERCHANT CODE
TH38991104

PAYER CODE / BILL ID
Purchase 27399

AMOUNT
RWF 10

Name On Card *

Enter Name On Card

Card Number *

Enter Card Number

| Expiry Month * | Expiry Year * | CVC * |
| MM | YY | CVC |

Pay Now

Error:

```
{
  "timestamp" : "2022-02-21 11:47:09",
  "message" : "Given MTN Phone Number is Invalid",
  "status" : 400
}
```

Expected API response and Error codes

Result Code	HTTP Response code	Description
200	**200**	Payment processed successfully
400	**400**	Missing required parameters or wrong inputs
401	**401**	Wrong Authentications
404	**404**	No data found for the given payer code

6. Call back Payment notification Inquiry

Method:
POST http(s)://your-ip-or-domain-name/call-back-notification-api-service-path

Request headers:
Content-type: application/json
Authorization: 'Bearer API_Token'

(*) API_Token :
It is a returned TOKEN of type bearer that your 3rd party system will provide to us

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Parameters

NAME	TYPE	DESCRIPTION
status	INTEGER	Response status code: **201** or **200** or **402** or **499**
transaction_status	STRING	Response status message: **PENDING** or **VALID** or **FAILED** or **CANCELED**
transaction_id	STRING	Valid and always unique per transactions
merchant_code	STRING	This is the merchant reference number from our payment gateway
payer_code	STRING	Payer reference number or bill number
payment_channel	STRING	Payment channel used by the payer: **WALLET, CARD**
payment_channel_ name	STRING	Payment channel name used by the payer: **MOMO, AIRTEL_MONEY, VISA, MASTERCARD, AMEX, CARD_NAME_PENDING, NA**
amount	DOUBLE	Total paid amount
currency	STRING	It's the currency of the paid amount (RWF or USD)
payment_date_tim e	STRING	It's the datetime of when the transaction were processed

Request:
```
{
  "status": 200,
  "transaction_status": "VALID",
  "transaction_id": "11202202011152166608",
  "merchant_code": "TH35409959",
  "payer_code": "2022011019",
  "payment_channel": "WALLET",
  "payment_channel_name": "MOMO",
  "amount": 100,
  "currency": "RWF",
  "payment_date_time": "2022-01-23 09:22:34",
  "slip_number": ""
}
```


Response:

```
{
  "timestamp": "2022-01-23 09:29:34",
  "message": "Successful",
  "status": 200,
  "data" : {
    "external_transaction_id" : "11202202011152166608",
    "internal_transaction_id" : "95331107652641",
    "payer_phone_number" : "250788536921",
```

```
    "payer_email" : "useremail@gmail.com"
 }
}
```

Error:

```
{
 "timestamp": "2022-01-23 09:32:34",
 "message": "No data found for this code: 2022011019",
 "status": 404
}
```
Expected API response and Error codes

Result Code	HTTP Response code	Description
200	**200**	Payment saved successfully
400	**400**	Missing required parameters
401	**401**	Wrong Authentications
404	**404**	No data found for the given payer code

7. Transaction status check

Method:
https://staging.urubutopay.rw/api/v2/payment/transaction/status

Request headers:
Content-type: application/json
Authorization: 'Bearer API_Token'

method: POST
headers: {
Authorization:"merchant api key"
}
Payload:
```
{
  "transaction_id": "",
  "merchant_code": ""
}
```